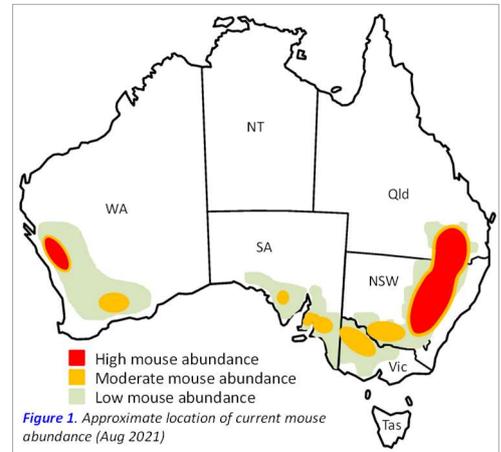


Monitoring mice in Australia – August 2021



Summary

- Mouse numbers are moderate to high in many regions of WA, NSW, Victoria, and Queensland (Figure 1).
- **Moderate or high number of mice is a serious concern for this time of year. Urgent action is required to minimise damage and losses.** Mice will begin breeding shortly, and conditions are highly favourable (lots of food, cover and moisture). Mouse numbers will only increase once breeding starts and peak in late autumn (Mar/Apr 2022).
- **Consider zinc phosphide baiting (50 g ZnP/kg bait) before seed set.**
- **Mouse numbers are patchy in many areas (Figure 1) but be vigilant.**
- **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 twitter using @MouseAlert.



Management Recommendations

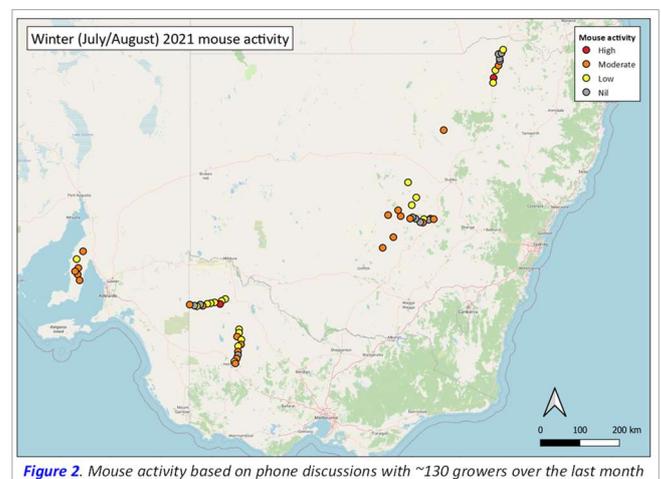
Mouse numbers normally decline through winter, but can still cause economic damage if numbers are high. Crops will compensate for minor damage, but cannot compensate for heavy damage or damage that occurs in late stages of crop maturity. If concerned, consider management **before crop comes into head**. See GRDC [Mouse Control](#) website for more details about control options.

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 to maturing crops **aerially apply zinc phosphide mouse bait** (adhere to label instructions and be aware of the 14-day withholding period before harvest). Once seeds have developed on heads, mice are reluctant to go for zinc phosphide baits, so if need be, **bait well before seed set**.
3. **Talk to bait suppliers** and ask for **50 g ZnP/kg bait** to ensure best chance of success. Be aware there are significant lead times in some locations so talk to your supplier.
4. **Control weeds and grasses** along fence lines and crop margins before seedset by spraying or slashing.
5. **Mouse-proof** houses and grain and stock feed storages.
6. **Apply bait around buildings** if necessary. Please check and comply with label conditions.

Current situation

Because of COVID-19 travel restrictions, the CSIRO team have been unable to conduct their national in-paddock monitoring activities that usually take place this time of year. We have consulted our extensive grower network (~130 growers) to piece together the current mouse situation (Figure 2). We also consider reports in *MouseAlert* (Figure 3).

Mouse numbers are moderate to high in many areas. Given the excellent conditions in many areas, mice will commence breeding early (lots of food, cover and moisture) and mouse numbers will only increase. Growers should remain vigilant and act accordingly if mouse abundance is of concern. Because of patchy activity between paddocks, growers are advised to monitor across multiple paddocks to gauge mouse numbers to inform management decisions. Focus on paddocks that sustained grain loss last year (please report on *MouseAlert* www.mousealert.org.au).



- **South Australia:** Mouse numbers are patchy with moderate mouse numbers in North Adelaide Plains, Yorke Peninsula and western Eyre Peninsula. Adelaide Plains and Yorke Peninsula: Mouse activity is low to moderate (but patchy). Eyre Peninsula: mouse numbers are low, but reports of patchy numbers west of Kimba. Numbers are expected to increase. Ongoing vigilance is important.

- **Western Australia: Mouse activity is high around Geraldton and moderate around Ravensthorpe:** Geraldton: crops are maturing early with intense activity observed in canola & lupins, with some damage to wheat heads. Baiting underway, but significant wait times evident (access to baits and aeroplanes). Ravensthorpe: mouse damage observed to canola pods west of Ravensthorpe (West River), but mouse activity is patchy.
- **Victoria: Mouse abundance is low to moderate (but patchy).** Mouse activity is highly variable. Mallee: low to moderate (some baiting underway). Wimmera: Highly variable, some sites with high activity (faba beans, oats, barley, vetch with active burrows), some with low or nil (thanks BCG).
- **New South Wales (Northern, Central & Southern): Mice are moderate to high but patchy in Central West and highly variable in northern NSW (Moree, Liverpool Plains).** Central West: moderate activity from 5/8 sites. Parkes: moderate-high mouse activity on 4/9 sites. Northern: moderate activity on 4/9 sites near Moree; serious concern in northern areas, particularly in chickpeas, but highly variable and patchy in other areas (low at Milguy, Croppa Creek and Buckie Rd; nil at 2 sites at Ashley). Southern: mouse numbers have declined and are low. Ongoing vigilance is important. We thank North West Local Land Services, Central West Farming Systems and NSW DPI for mouse monitoring.
- **Queensland: Mouse abundance and activity was moderate to high on sites across the Darling Downs and Goondiwindi.** Summer crops went in late due to lack of rain, but mouse numbers built-up as crops matured. Serious concern about moderate to high numbers as winter crops come into head. Some reports of patchy numbers from Rockhampton and Emerald. Ongoing vigilance is important.

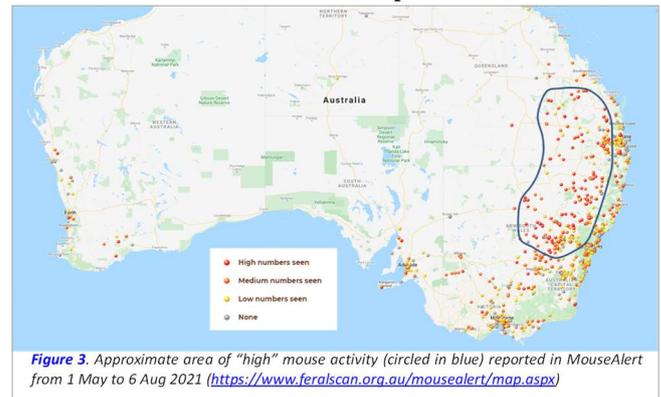


Figure 3. Approximate area of “high” mouse activity (circled in blue) reported in MouseAlert from 1 May to 6 Aug 2021 (<https://www.feralscan.org.au/mousealert/map.aspx>)

The ‘Mouse Forecast’

Northwest Victoria: The probability of an outbreak in autumn 2022 ranges from **0.19 (low)** to **0.46 (moderate)** depending on rainfall in September and November (from the Qualitative model). Peak abundance at Walpeup is predicted to be **low-moderate** in autumn (50 mice/ha, but could be 100 mice/ha, depending on trap success in September). Mouse abundance in other regions of NW Victoria could be higher and could cause damage as crops mature.

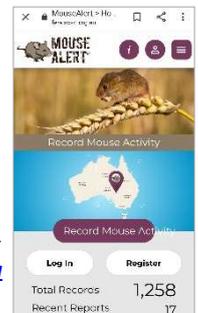
Adelaide Plains: The probability of an outbreak in autumn 2022 ranges from **0.34 (moderate)** to **0.68 (high)** depending on rainfall in September and November (from the Qualitative model). Numbers are likely to increase through spring and summer and could to be a problem at sowing in autumn 2022.

Central Darling Downs: Field staff have been unable to get into the field. We will run the model in September.

Future activities

The next scheduled monitoring is set for September 2021 in all regions. 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 (now >2,500 records). We welcome any information at any time. You can also follow progress on **Twitter** (@MouseAlert). Instructions on how to use **MouseAlert** [here](#). Download the **MouseAlert** App from [iTunes app store](#) or [Google play](#) (click on hyperlink to download).

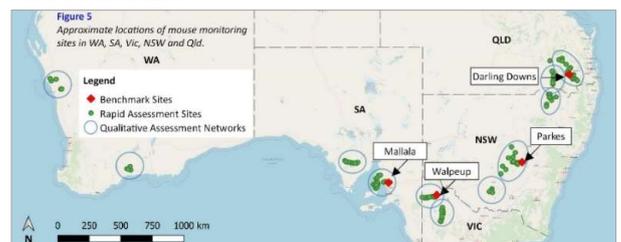
MouseAlert Smartphone app → www.mousealert.org.au



Background

This is an update on mouse abundance and activity for June/July for all regions. Mouse populations were monitored in typical grains farming systems in WA, SA, Vic, NSW and Qld during winter 2020 (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 2021) to monitor mouse populations and forecast the likelihood of 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 (130 transects, 11 areas).
- **Qualitative monitoring networks (○):** from farmers and agronomists in 11 local areas.



Further information and Handy resources

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- ① GRDC Mouse Control website: <https://grdc.com.au/resources-and-publications/resources/mouse-management>
- ② MouseAlert (hosted by FeralScan): <https://www.feralscan.org.au/mousealert/>