

Update of mouse numbers from the Central Mallee of Victoria May 2001 - CSIRO Rodent Research Group

Regular mouse trapping is conducted in the Central Mallee wheatlands of Victoria as part of a Grains Research and Development Corporation funded project. This is an update to the report sent out in early April 2001.

Abundance of mice

The abundance of mice is high for this time of year (Figure 1). The mice are in good body condition. There has been a rapid increase in abundance in the past month on our long-term sampling site (continuous red line). The farmer on this property has been implementing “best practice” for managing mice.

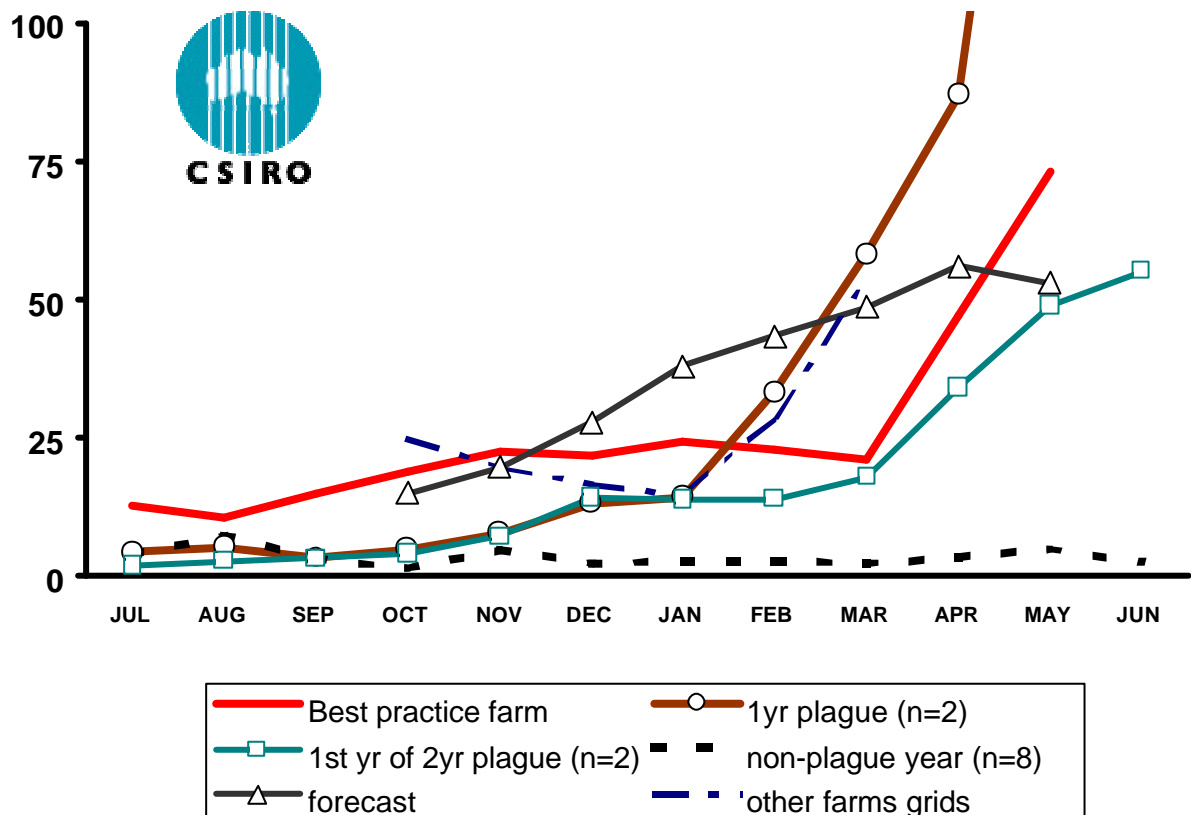


Figure 1. Historical, current and predicted trends in the abundance of house mice in the cereal production areas of the Victorian mallee. The index of abundance is adjusted trap success per 100 trap nights and recent data are shown for July 2000 onwards. The historical data come from four plagues that have occurred in this area since 1983. On two occasions (1984 and 1997) the eruptions were restricted to one year (“1yr plague”) and on two other occasions (1987-1988 and 1993-1994) the eruption was more pronounced in the second year (“1st year of a 2 year plague” is shown here). For 2000-2001, observations from trapping grids on four farms (“other farm grids”), which include fence lines and crop/stubble, indicate that populations of mice are building up towards an outbreak (finished in March, possibility of another sample at sowing). Also shown are recent trapping data for our long-term sampling site where “best practice” recommendations are followed to minimise damage from mice. The forecast from a model developed by CSIRO for this region is shown for comparison. This model was run in October 2000.

Breeding

Adult female mice (n=30) were autopsied and only one was pregnant and a couple had recent scars. In effect, breeding has ceased for this biological year.

Monitoring of mouse numbers at other sites

Mouse numbers are still low in the southern Mallee of Victoria and low to moderate in the Northern Mallee of Victoria. There have been recent reports of mouse activity in the eastern limit of the central mallee wheatlands around Piangil.

We will be monitoring mouse numbers in South Australia over the next three weeks.

General Comments

The above data for the central Mallee in Victoria coupled with the late break to the season, suggests that problems could occur for farmers at sowing. Basically, individual farmers need to stay on alert for signs of high mouse activity. Given the current body condition of mice, we do not expect a significant decline in mouse numbers in the next 2 months.

Mouse densities will not increase much beyond what there is at the moment because most breeding ceased in March. However, in May-July mice tend to aggregate around food sources so there will be increased concentrations of mice around farm buildings, silos, etc., from now until July.

Recommendations for management

A research project funded by the Bureau of Rural Sciences and GRDC in the Central Mallee and Wimmera regions of Victoria (1995-1998) provided some recommendations for best farm management practices for mouse control. This was a collaborative project between the CSIRO Rodent Research Group and the Victorian Department of Natural Resources and Environment.

Farmers may also wish to consider protecting their crops at sowing to reduce the chance of damage. This can be achieved by cross harrowing, rolling or prickle chaining after sowing to ensure the seeds are well covered. Furthermore, the seeds should be sown as deep as agronomically possible and to an even depth. Farmers should contact their local DNRE officer for advice if they are contemplating use of broad-scale poisoning in paddocks.