

## Turretfield comes up trumps.

A long-term monitoring site at Turretfield Research Centre in South Australia is providing valuable intelligence in the war against rabbits.

For twenty years, rabbit populations on the property have been routinely estimated and sampled, providing data that is proving useful on many fronts. From the data, 'rabbit histories' tracking the mortality of individuals are now available for over 4,000 rabbits. The collected blood and tissue samples also provide evidence of the incidence of diseases such as myxomatosis and the *Calici* virus (RHDV).

'The value of the Turretfield data is increasing each year', said Mr Peter Alexander, Chairman of Foundation for Rabbit Free Australia (RFA).

'The continuous record, and the blood and tissue samples, are being used in several projects in which RFA is assisting with financial support, and attracting requests from overseas as well', he said.

Projects using the Turretfield rabbit data in recent times include:

- Modelling rabbit populations and the impact of different diseases. The twenty years of records is enabling a Flinders University student (Louise Barnett) to develop a model representing the impact of different diseases on rabbit survival. The model will help predict the potential of any future diseases or parasites being considered as biological controls. Work on the data has already shown that rabbits exposed to *Myxomatosis* are around 10% more susceptible to the *Calici* virus (RHDV).
- Understanding the importance of genetics. A University of Adelaide researcher (Amy Iannella) has followed the survival rates of different 'families' of rabbits to see how important genetic differences are in their ability to survive diseases. It has shown that some dominant rabbits sire more surviving young than others. It also showed the importance of seasons, feed availability and the timing of disease outbreaks on rabbit survival. The insights from this work will help to fine-tune future rabbit control programs.
- Long-term population and infection relationships. The regular sampling and survey work has followed how populations respond to seasons and diseases. It shows that the current population of rabbits is the lowest it has ever been since the release of RDHV – and it appears that the RHDV2 strain of the *Calici* virus is the main reason. The sampling is also detecting new strains of RHDV, which has resulted in requests for access to samples from overseas researchers.

'The data from Turretfield is unique in a global context', said Peter Alexander, Chairman of RFA.

'There just aren't continuous records like this available from other places – and the longer the record extends, the more valuable it gets.'

Biosecurity SA and dedicated volunteers have maintained the survey and sampling program, which RFA hopes will continue for many years to come.

For more information:

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