

Southeast Hay Rabbit Management Program

In 2015 independent rabbit control in the area southeast of Hay transitioned to a co-ordinated and strategic program spanning 240,000 hectares of saltbush plains, sandhills and prior stream environments. A total of 18,337 hectares has been ripped since the project's inception.

The area is environmentally significant for the presence of White cypress pine communities and the critically endangered Plains Wanderer bird that nests on the ground. Rabbits have established themselves easily in the soft digging sandy soils, with large warrens being the predominant harbour.



Suzie Holbery & a typical warren, before ripping.

In New South Wales, Local Land Services is the frontline agricultural agency responsible for delivery of vertebrate pest control programs and compliance with biosecurity legislation. The enormity of the rabbit problem across the identified area became a resourcing issue for staff to effectively conduct pest inspections across such a vast area. Riverina Local Land Services decided upon aerial survey as an effective and efficient method to capture baseline data on the presence and density of rabbit warrens across the landscape.

The aerial survey conducted over 2 years (2015-2016) used a helicopter fitted with 4K HD cameras mounted to the skids on both sides to film transect spaced 500 m apart. Two observers were onboard to verbalise the presence and density of rabbit warrens, which was georeferenced simultaneously. The landscape with open, short vegetation and flat plains was well suited to this surveying technique.

With a detailed map from survey data, strategic planning began to determine the priority areas for deep ripping of rabbit warrens. Fortunately, funding was available at the time to support follow-up activities post the RHDV-K5 (Calicivirus) release. This provided an opportunity to deep rip large areas.

Some of the challenges for project delivery have been working around animal husbandry and management schedules given our requirement for 1080 poison baiting pre-ripping. Aboriginal cultural heritage site assessments have been conducted in line with NSW legislation and departmental procedures. The most common sites found in the area are scar trees and camp sites, fortunately they can easily be avoided during ripping operations. We work closely with the local aboriginal community groups and land councils to ensure we respect the landscape and its cultural heritage whilst also meeting valuable environmental outcomes.

The warrens can be hundreds of meters in diameter with burrows to a depth of two metres.

Machinery contracted for ripping operations must meet defined criteria including 1m length tines spaced no more than 0.5 m apart. The machinery type to be used is determined by the predominant landscape, for example on sandhills with numerous stumps from early settlement a bulldozer on tracks is preferred, compared to open prior streams where a loader can effectively do the task.

All 17 priority holdings have participated in the program. Landholders have been supported with \$480K of funding from the Australian and NSW Governments. Landholders have co-contributed an additional \$271K. Machinery hourly rates varied from \$150 to \$280 per hour depending on machine type.

The number of hectares that can be achieved with machine hours is highly variable depending on the machine used and the landscape type.

The results have exceeded expectations with notable increases in pasture, regeneration of native species, and increased carrying capacity for livestock. Landholders have been able to see the return on their investment and now routinely implement rabbit control as part of their ongoing property management.



Areas once pocked with warrens are now covered with vegetation. (Images: Riverina Local Land Services).

By Suzie Holbery, November 2022