RABBITS IN THE BASS COAST

BIOLOGY

Rabbits belong to the *Leporidae* family and are related to hares. They have long ears, long hind legs, and their fur colour can vary from light brown to grey-brown. Breeding occurs at any time of the year, when there is food available, which is typically in the greener and wetter seasons, such as spring. They can begin breeding at around 4 months of age, and when conditions are favourable, a female rabbit can have up to 5 litters in a year.

European rabbits are herbivores and eat a range of vegetation, including crops and pastures. Generally, rabbits can obtain enough water through their food, only in arid areas do they need access to a water source.

HABITAT

European rabbits are declared as an established pest in Victoria. They are found in most of Australia, with the exceptions of the northernmost and alpine regions. European rabbits are native to Spain, Portugal and France, and were deliberately introduced to Australia, first arriving on the First Fleet. Their rate of spread is thought to be the fastest of any mammal worldwide.

Rabbits live in large warren systems that can extend 3m deep and 45m long. In areas of low vegetation, scrub or where noxious weeds (eg. blackberry or gorse) are present, rabbits can also live above ground under dense vegetation.

IMPACTS OF RABBITS

Rabbits are Australia's most significant vertebrate pest. It has been estimated that rabbits cause a cost of $206 million in production losses per annum. They graze on agricultural crops and pastures and compete with livestock for feed. This in turn can also affect the carrying capacity of livestock on agricultural land.

They also cause severe environmental degradation. They compete with native fauna for both food and shelter. Rabbits damage vegetation through their grazing, browsing and they can also ringbark plants. This feeding can prevent the regeneration of seeds and seedlings. Rabbit diggings and warrens can also destabilise soils, which leads to erosion.

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MONITORING OF RABBITS

Having a monitoring system to assess rabbit numbers and map where they are living is a crucial part of any rabbit control program. This will also allow you target your control effectively. Persistence is key with rabbits, as there is **no** quick, one fix method.

Work with your neighbours

Rabbits are not contained by property boundaries. Working with your neighbours is a crucial component to rabbit control. Find out what your neighbours are doing about rabbits, and perhaps you can work together and co-ordinate control. Your hard work can be wasted if rabbits recolonise your property from other areas.

Identify areas of rabbit activity

Mapping areas where rabbits are found on your property is useful for targeting your control effort. Rabbits are territorial and live in warrens, but can also harbour around buildings, sheds or weedy areas. Look for signs of fresh diggings, scratchings or dung. Establish a map of warrens for your property, including active entrances.

Calculate rabbit numbers

Spotlighting is a useful technique to assess rabbit numbers. Set a specific walking route on your property, which you can regularly return too. Walk this route with a strong torch at dusk and count how many rabbits you see. It is also useful to record where they run to. Spotlighting can be done pre- and post-control to see how effective your control work has been.

CONTROL METHODS

Rabbit control methods are varied and use a range of biological, mechanical and chemical techniques. To achieve effective and efficient rabbit control, a combination of methods needs to be used together. Under the Victorian *Catchment and Land Protection Act 1994*, landholders are required to control, and where possible, eradicate, rabbits on their property. The methods of rabbit control used, depend on the size and location of a property. In urban areas, more traditional control options of baiting and shooting are usually not suitable.

Rabbit diseases

Rabbit-specific diseases have been released in Australia as a form of biological control. These include Myxomatosis and Rabbit Haemorrhagic Disease Virus (RHDV), previously known as calicivirus. Alone, they cannot control rabbits, but are able to be used as an integrated rabbit control program.

Baiting

Baiting for rabbits is normally done during late summer/early autumn as there is little other food available for rabbits. Combining baiting with other methods such as warren ripping can achieve long-term results in reducing rabbit numbers on your property. Two types of bait, 1080 (sodium monofluoroacetate) or Pindone, can be used.

An antidote (Vitamin K1) is available for Pindone and therefore it is more suitable for use in areas where there is a risk to domestic animals. 1080 baiting can, however, be cheaper as only one poisoned feed is needed.

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Rabbits typically feed within 25m of their warren. This is where your rabbit activity map is useful, so you can target the bait to their feeding areas.

Tips for baiting:

- Conduct free feeding (carrots or oats) to get an idea of how much bait to lay down.
- Protect other wildlife and your stock by laying your bait at dusk.
- Ensure that all bait is disposed of as per label instructions
- Remove any carcasses to avoid secondary poisoning of other animals.

Fumigation, ripping of warrens, and harbour removal

Destroying rabbit warrens is an essential step in any rabbit control program. This is best completed when rabbit numbers are low, for example after baiting.

Tips for Ripping:

- Map the location of all warrens – then, using machinery such as a tractor or bulldozer, the entire warren structure can be destroyed.
- Is best done during hot and dry conditions.

Tips for Fumigation:

- Is where poisonous gas, such as phosphine, is introduced into the warren system
- This strategy does not destroy the warren system – you should monitor these warrens in case of re-establishment
- Note that you need to have an Agricultural Chemical Users Permit (ACUP) to be able to purchase fumigants.

Tips for Harbour removal:

- Rabbits are also able to live above ground where there is suitable habitat.
- This can include in log or rock piles, in weeds such as blackberry or gorse, as well as under houses or sheds.
- It is important to clear any of this harbour, but please contact the Bass Coast Shire Council before clearing any indigenous vegetation.

Fencing

Rabbits can be excluded from your property by using rabbit-proof fencing. Rabbit proof fences keep rabbits out, but control still needs to be completed to remove any rabbits within the fenced areas. Although expensive, this is a cost-effective, one off expense. With regular maintenance of the fence and control within the fenced area, you can aim for your property to become rabbit free.

Frequently Asked Questions

Help! I have rabbits on my property, what do I do?

Be ready to come up with an integrated control plan and be persistent in your actions. Use the above monitoring and control strategies to come up with a rabbit management plan for your property.

What's the most effective way of controlling rabbits?

There is no one effective method to rabbit control. Long-term rabbit reduction or eradication can only be achieved using a combination of methods (not just one or two). Each control method has a different purpose, from killing rabbits and reducing their numbers, to reducing their home and breeding space.

How do I create a rabbit management plan?

Start by defining the problem so that you can work to minimise any impacts caused by rabbits. Set clear and achievable goals in what you want to achieve. The next step would be to complete monitoring and control activities, as listed above. Continued monitoring and evaluation post-control is also crucial. This will also allow you to modify any activities as needed.

Why should I undertake rabbit control?

Under the *Catchment and Land Protection Act 1994*, it is a landholder's responsibility to control rabbits on their property. Rabbits are also declared as an established pest animal. Rabbits have environmental, economic and social impacts and are Australia's most significant pest species. Lowering the density of rabbits can have a positive impact on your land.

I have pet rabbits, will rabbit biological control affect them?

Vaccines are available against Rabbit Haemorrhagic Disease Virus (RHDV), also known as calicivirus. Contact your vet for relevant information and to book in for vaccination.

For further information and advice on rabbit control, please contact the Bass Coast Landcare Network Rabbit Project Officer or Agriculture Victoria.

Disclaimer: The advice in this publication is intended as a source of information only. Information used in this brochure has been sourced from: Agriculture Victoria www.agriculture.vic.gov.au

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