



RABBIT CONTROL IN URBAN & SEMI URBAN AREAS

Rabbits have dominated Australia's landscape since the release of 24 on a property near Geelong in 1859. They proved ideally suited to the climatic conditions and bred prolifically to become a widespread problem.

The Rabbit is Australia's most serious pest animal.

RABBITS

- destroy plants and plant communities
- cause soil erosion
- compete with native fauna for food and habitat.



Scientific update

The rabbit population in Australia has been estimated between 200 and 300 million.

In the 1950's rabbit numbers were greatly reduced by the release of the **myxomatosis virus**.

However the virus has become much less effective, because its genetic make-up has changed and rabbits have developed a resistance to the virus.

Another virus that has recently been introduced to Australia is the **rabbit calici disease (RCD)**. It is an infectious and lethal disease for rabbits. It was first observed in China in 1984 and then subsequently found to have moved to Europe and Mexico. Trials have shown it to be specific to the European or wild rabbit.

RCD is transmitted to rabbits through direct contact, most likely from birds, insects and other animals, but only if the virus particles move from the carrier to the rabbit within a few hours. Rabbit droppings, vehicles, clothing and footwear may also spread the disease.

Points to consider about RCD

- RCD alone will not eradicate rabbits.
- The effects of RCD must be supported with traditional rabbit control methods.
- RCD is not a haemorrhaging disease.
- Not all rabbits exposed to RCD will die from it. Some exposed rabbits, especially those less than 8 weeks old will live a full life span and breed as normal.
- Offspring of rabbits carrying the RCD virus will receive maternal antibodies.
- While RCD proved very effective in the northern, arid parts of Victoria, the success of it in higher rainfall areas is not as good.

A vaccine is available against RCD for use on commercially farmed rabbits and pet rabbits.

Rabbit biology and behaviour

To control and remove rabbits it is necessary to understand how they function and behave.

- 1 Rabbits have a hierarchy in which dominant males mate with dominant females. When non-dominant rabbits are excluded from 'family burrows' they seek other feeding areas and establish other warrens.
- 2 Rabbits are territorial. Brave rabbits generally feed further from the warren; shy rabbits feed closer to the warren. Rabbits may not find (and therefore not eat) bait placed outside their feeding areas.
- 3 Rabbits are prolific breeders able to produce numerous litters per year. This usually occurs during the wetter months, including wet summers.
- 4 Survival of young is substantially increased when rabbits have safe harbour, especially earth burrows.

Planning a rabbit control program

Points to remember :

- Rabbits control is achieved efficiently and effectively through a combination of control measures, not just one. There is no quick-fix solution. Landmanagers must be more persistent than the rabbits!
- One rabbit is one too many. Remember it all started with just 24 rabbits.
- Rabbits are not native to Australia and are not part of the natural landscape.
- Native wildlife may also be using rabbit harbour. Make provisions for wildlife as required.

PLANNING YOUR PROGRAM

Planning can maximise rabbit control while minimising damage to other animals. Consider the habitat in which the rabbits are living as this will determine what action is appropriate. The following steps will help in planning.

Work together

Work with neighbours. Work done on your property will be wasted if rabbits can re-colonise from other areas. Find out what adjoining property owners are doing to control rabbits. Be aware that neighbours might have a different view of the extent of the problem, talk to them and reach a common understanding.

Be rabbit free

Use rabbit proof fencing to enclose rabbit harbour "hot spots". Well maintained fences stop rabbits from damaging valuable plants and your property. Work with adjoining neighbours to fence the whole area, or individually to protect your own property.

Identify rabbit feeding/living areas

Map these areas for future reference. Rabbits are territorial and may live in burrows or harbour under boulders, houses, sheds, wood heaps and in proclaimed noxious and environmental weeds.

Indicators of rabbits include a fresh burrow with footprints and dung in the vicinity. Other indicators include scratchings and also the presence of dung. Well-used tracks emerging from holes in fences may also be an indicator, especially if there is no gap in the fence.

Lawns that never need mowing, noises under the house, and fur caught on fences and vegetation can also be an indicator that rabbits are present. You don't necessarily need to have rabbits living on your property to be affected by them.

Assess the number of rabbits on your property

Make your observations very early in the morning or at dusk. With a torch, walk around your property and record the number of rabbits, what they are feeding on and where they run to or live.

Eliminate all known rabbit habitat/harbour

Trim under all hedges and thickets of scrub to destroy possible harbour. There is a close association between rabbits and weeds (ie introduced plants and introduced animals eg blackberries and rabbits.)

Indigenous vegetation is protected in your area under local government planning schemes. Contact the City's Environment and Natural Resource Unit, phone 5227 0380 before undertaking any activity in areas where there is indigenous vegetation.

It is your responsibility to control rabbits on your property and in most cases the adjoining roadside.

Remember rabbit control is time-consuming and that there is no quick fix solution.



METHODS OF RABBIT CONTROL

Removal of the rabbits harbour (shelter)

A predominantly nocturnal grazing animal, the rabbit is highly dependent on shelter. It is the rabbit's dependence on harbour that makes it most vulnerable.

Above ground surface harbour significantly enhances the survival of young rabbits and provides excellent protection for rabbits from predators and climatic extremes. Fallen timber, log heaps, rocks, introduced weeds; (boxthorn, blackberries, furze/gorse) and discarded building/fencing materials provide important advantages to rabbit survival.

A rabbit control program will fail unless burrows and other harbour is destroyed.

Ripping warrens and removing harbour

Ripping of warrens and harbour destruction should be done after fumigation or poisoning as part of a follow-up technique, particularly where rabbit numbers are high.

Before you begin:

- Make sure all rabbits are driven underground, either by running dogs over the area, or by making enough noise to scare rabbits into their burrows.

Then

- Remove all harbour. This may be blackberries, logs or fallen timber. Be aware of native wildlife that might also be using the rabbit harbour.
- Use a single or double tynded ripper to rip burrows.
- Check the area a week later for signs of re-use by rabbits. If there is fresh activity, fumigate or rip again. When you are sure all rabbits have been removed, level the area off and revegetate with appropriate species.

More detail on this activity is given in Landcare Note: Rabbits: Ripping and other Harbour Destruction found at www.dpi.vic.gov.au



Modifying harbour

If it is not possible to remove harbour, modifying it can also have a positive effect. Where rabbits are living under hedges or low growing shrubs, trimming the lower branches from the ground to a height of at least 45cms (18 inches) will significantly reduce its rabbit harbouring ability. Items such as sheets of corrugated iron, timber boards and firewood will not provide rabbit harbour if properly stacked or stored off the ground.

When dealing with rabbit harbour remember:

- If possible destroy it;
- If it can't be destroyed, remove it;
- If it can't be removed, modify it;
- If it can't be modified, exclude it by fencing it with rabbit proof fencing.

Rabbit proof fencing

This involves constructing a fence around a property to exclude rabbits. There is material specifically designed for constructing such fences. Ask for "rabbit proof fencing" when making inquiries.

There are two main rabbit fence designs. Either 18cm of the fencing wire (mesh) is buried in the ground, or the lower section of the wire mesh is laid on the ground facing in the direction of possible rabbit entry. The wire must be held down securely with pegs, rocks or timber.

Once you have "rabbit-proofed" your area, follow up with other techniques (eg. fumigation, ripping) to remove rabbits within the "proofed" area. Rabbit-proof fencing is a one-off process. With proper maintenance fences should last up to 20 years. Well built and well maintained fences can keep properties free of rabbits.

This may be expensive in the short term but is often the most cost-effective method.

Rabbit proof fences may limit the movement of some native animals, contact the local Flora and Fauna Officer at NRE for more information.

More information on this type of fencing can be obtained from Landcare Note: Rabbit proof fencing, found at www.dpi.vic.gov.au

Poisoning

Poisoning is usually very effective in quickly reducing rabbit numbers, but must be done in conjunction with fumigation and harbour destruction.

Pindone is a registered rabbit poison that comes in two forms: - (powder and liquid) both of which are applied to bait material either carrots or oats. It has an antidote, vitamin K1, and is generally safer to use than 1080 (sodium monofluoroacetate) where non-target animals like domestic dogs are at risk.

Pindone treated bait is well suited for use in urban and semi urban areas.

Pre-prepared baits of Pindone treated oats are available as commercial products.

Pindone is a registered rabbit poison. The product label provides specific directions for use and must be understood prior to its use.



Preparation and Planning

Rabbits can be poisoned at anytime that they will readily take oat or carrot bait. However most rabbit poisoning occurs in late summer / early autumn when rabbits range over greater distances and feed is scarce.

Identify where the rabbits are feeding and their density to establish the amounts of bait required.

Free feeding, or laying unpoisoned baits on two or more occasions can greatly improve the success of a poisoning program. Free Feeding helps the rabbits acquire a taste for the bait.

Free feeds are useful to estimate the quantity of bait required and if necessary adjust the quantity and the placement of baits and also to assess risk to non-target species.

Notify neighbours, as appropriate. Erect appropriate warning signs prior to laying bait.

Trail laying

A furrow that is approximately 10cm deep and 12cm wide is cut into the ground. The trail can be cut by hand using a hoe; a disc pulled behind a vehicle or a specifically designed baitlayer. Bait (cut carrots / oats) are placed into the trail firstly as free feed (unpoisoned bait used to get rabbits accustomed to the bait) and later as poisoned bait.

Bait laying equipment for a poisoning program can be obtained or hired from most Landcare groups, some equipment hire firms and some pest control contractors.

Bait stations

Are used to reduce the risk of non-target animals taking the bait. Small handfuls of bait are placed in areas where rabbits have been seen to be feeding, in structures that allow rabbits to feed but restricts other animals from accessing the bait.



Monitoring

On each day of the control program, the baited area and surrounding areas must be thoroughly monitored. Rabbit carcasses must be collected and properly disposed of to lessen the risk to non-target species.

More details on this activity are given in Landcare Note: Rabbit control using Pindone poison, found at www.dpi.vic.gov.au

Fumigation

Fumigation of rabbits in burrows is an important option in rabbit control. It is a follow up technique to ripping and poisoning.

Before using a fumigant always read the label thoroughly and then follow the instructions carefully.

When fumigating burrows:

- Ensure all rabbits are in burrows;
- Treat every hole of every burrow;
- Seal each hole securely;
- Ensure all seals are air-tight for maximum effectiveness.

Nearly all rabbit fumigation products are Schedule 7 poisons and all persons using a Schedule 7 poison must have an Agricultural Chemical Users Permit (ACUP) or be under the direct supervision of an ACUP permit holder. (See Agriculture Note AG0626: Agricultural Chemical Users permits (ACUP) and chemical control areas(CCA).)

More details on this activity are given in Landcare Note: Rabbits: Methods of fumigating rabbit burrows, found at www.dpi.vic.gov.au

Wire cage trapping

Trapping is not a recommended method of control as it is a slow, long term process with variable results. It is inefficient, taking only a low number of rabbits and is costly in the purchase or hire of traps.

The advantages of trapping are that non-target species caught can be released, and that no poison is used. Trapping is therefore more acceptable to some people.

Ferretting

Ferretting is a useful means of control if rabbit numbers are fairly low and done in conjunction with other methods, but can be time consuming and inefficient when rabbit numbers are high.

Leghold trapping

Small leg hold steel jaw traps have no place in urban or semi-urban areas. They cannot be used unless done so in accordance with the Prevention of Cruelty to Animal Act 1986 and the Code of Practice for the use of Small Steel-jawed traps.

Under the Act the use of small steel jawed traps:

- is prohibited on Crown land
- is prohibited in “an urban area that is not predominantly for agriculture”.
- is prohibited except in if done so in accordance with the Code of Practice and with the consent of the owner or occupier of the land.

Traps should be inspected regularly for rabbits or other animals

MONITORING RABBIT POPULATIONS

Going out once a month with a spotlight allows you to monitor the numbers and location of rabbits. Any residual population has the breeding potential to restore rabbit numbers back to previous levels very quickly if not controlled. Remaining rabbits must be eradicated to safeguard the invested time and money spent on control.

CONTRACTORS AND SUPPLIERS

There are a range of contractors who can carry out rabbit control programs. Consult the yellow pages of the local telephone directory.

For other materials eg fencing refer to the yellow pages of the local telephone directory under Farm Supplies.

FURTHER INFORMATION

The Department of Primary Industries (DSE), local Landcare Groups and/or Rabbit Action Groups may be able to provide additional information to help plan your control program.

DSE Pest Animal Landcare Notes can be found at www.dpi.vic.gov.au

CREDITS

Information used in this information sheet has been obtained from Department of Natural Resources and Environment Landcare Notes on Rabbits.

Middle Yarra Region Rabbit Action Group's brochure “Controlling Rabbits in Urban Areas”.

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