



Rabbit warren and harbourage destruction

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If correctly and appropriately undertaken, the destruction of rabbit warrens, or the modification of the habitat so it becomes less favourable to rabbits, can be an important and effective part of reducing the impacts of rabbits. Although many rabbits may live and shelter above-ground (under bushes, in scrub), destruction of warrens, where they occur, can improve the overall effectiveness of rabbit control programs. If undertaken properly, the ripping of rabbit warrens can often provide a relatively permanent and long-term benefit. Similarly, removing or modifying other forms of rabbit-harbourage (for example removing rock piles) can also help, particularly in semi-urban areas or on smallholdings.

Caution: It is illegal to destroy native vegetation, including ripping warrens, without first obtaining the necessary approvals from the relevant authorities (for example, local council, Department of Environment and Conservation). It is your responsibility to ensure you have the necessary permits/approvals before ripping any warrens in native vegetation, including bush remnants.

Warren ripping

The ripping of warrens can provide relatively long-term respite from rabbit impacts. Although a number of implements are commonly used for ripping rabbit warrens, the effectiveness of ripping is directly related to the depth of soil disturbed. Hydraulic-controlled tractor-mounted rippers with single, double or triple tines are the most effective ripping implements as they are usually capable of penetrating the soil to a depth of 60 cm or more. This depth is generally required for effective warren ripping. If a plough is used in place of a ripper, then it is important to maximise the ploughing depth.

In general, to maximise the effects of ripping, warrens in clay should be ripped when the soil is damp, and those in sandy soils when the soil is dry. This increases the chance of the tunnels collapsing, and enhances the overall effectiveness.

Two sets of rips must be done at right angles to each other. If the warren is located on sloping ground, then the first set should run up and down the hill so that the final set is at right angles to the slope. This will help to minimise the risk of soil erosion.

Start and finish each ripping run at least two metres beyond the outermost burrow of the warren. This allows the ripper to get to maximum depth before the warren is reached. It also increases the chance of ripping any tunnels outside the visible warren area. Subsequent rips are made parallel with the first run until the whole warren system has been covered. Space the rips no more than 60 cm apart, with tines set at about 60 cm depth. Repeat this procedure at right angles to the first set of rips so that the entire warren is ripped in two directions.

If parts of a warren cannot be ripped because of obstructions such as trees or fences, then fumigate all un-ripped burrow entrances.



Figure 1: Tractor-mounted ripper (photo: R. Knox)

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Once ripping is complete, it is important to ensure the soil around the ripped-warren is thoroughly compacted using the tractor (or similar heavy vehicle). This is particularly important where ripping depth is less than the recommended 60 cm. If soil erosion is a concern, the ripped area can be lightly 'ploughed' using a scarifier, harrow or similar implement. If appropriate, the treated area can then be re-seeded to pasture.

Remember to inspect the treated area periodically so that any re-opened burrows can be quickly dealt with by re-ripping or by fumigation. If ripping has been successful, most traces of the warren should have disappeared by the following year. Warren ripping can be relatively expensive, so thoroughness and attention to detail is essential to minimise the overall cost. Rabbits can quickly re-open warrens which have not been ripped/destroyed properly, again negating some of the initial benefits.

Harbourage destruction

Harbourage destruction aims to reduce the available shelter for rabbits, and is particularly relevant to small holdings/areas. However, the appropriate approvals must be obtained before any native vegetation can be destroyed. Derelict farm buildings, rubbish tips, wood heaps, timber windrows from clearing, rock piles and abandoned farm machinery are all examples of places where rabbits may take refuge and/or establish warrens. For such problem areas, destruction or removal of the harbourage is often the only really satisfactory solution to eliminating a rabbit problem.

Again, after obtaining any necessary permits, and provided it is safe to do so, old wood heaps, windrows and other rubbish can be burnt. If burning is not appropriate, then relocate the offending material to areas less suitable for the establishment of rabbits (rabbits are less inclined to live in very rocky or lateritic soils). If safe, shooting may be an option to remove a small number of rabbits.

Fencing

A rabbit-proof fence erected around a small area of potential harbourage can often be a cheap and effective option to restrict rabbit numbers. Good quality, rabbit wire-netting will keep out all but the most persistent rabbits. To be effective, the fence must be at least one metre high; with the bottom either turned outward as a 30 cm apron, or buried at least 15 cm below ground level. The actual mesh-size should not be greater than 3.5 cm. If possible, reduce the number of rabbits present before, or immediately after, erecting the fence. Depending upon your circumstances, poison-baiting may be an option for this purpose. However, an application to use 1080 must be completed and provided to the nearest Department of Agriculture and Food Office, to enable a risk assessment to be carried out. If approved, an authorisation voucher is issued to allow the pickup of the 1080 baits from the S7 retailer. Pindone-bait can be purchased from rural merchandise suppliers.

Where it is not possible to remove rabbit harbourage or to use rabbit-proof netting, shooting, fumigation and poison-baiting may provide adequate control, but these methods may need to be repeated routinely to remain effective. Rabbits can reinvade harbourage, and return to their previous levels relatively quickly if left unchecked.

The best rabbit control program is one which is coordinated with your neighbours so you deal with the largest area possible. This approach also helps to reduce any reinvasion by rabbits.

Conservation areas

Clearing permits are required before native vegetation can be destroyed. Rabbits often use native vegetation on and around farms for shelter. However, clearing or ripping warrens in such areas is not usually recommended because it will often destroy the native vegetation. Areas of bush are usually left on farms for a good reason - for example, in light soils, clearing or warren ripping can lead to severe soil erosion. The ripping of uncleared road reserves and other conservation areas is not usually allowed, and it often encourages invasion by grasses and weeds. This can increase the fire risk and degrades the conservation value. Ultimately, this can result in better habitat for the rabbits.

Poisoning, fumigation, rabbit-proof fencing, or a combination of these techniques, are available as alternative approaches in the above situations.

Further information

Contact your local Department of Agriculture and Food or telephone Freecall 1800 084 881 or email info@agric.wa.gov.au. Additional publications on control of rabbits can be obtained by visiting the Department's website at: www.agric.wa.gov.au