Landcare Notes

Rabbits: methods of fumigating rabbit burrows

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This Landcare Note describes methods of fumigating rabbit warrens.

Introduction

"two or more control measures used together ensures a longer term effect on rabbit numbers and is better value for money than one method used alone"

Fumigation of rabbits in burrows is an important part of rabbit control. Fumigation usually takes place after ripping, which is about 3-4 weeks after poisoning. Fumigation is an essential follow up technique to ripping and poisoning.

Basic knowledge for fumigation

"fumigation works when the burrow is sealed"

- select a fumigant
- read the label
- find all active burrows
- ensure all rabbits are in the burrows
- locate all entrances/exits to the burrows
- seal all exists to that burrow
- cut the burrow back using a shovel to get easy access to the burrow entrance
- check to find the tunnel rabbits are using
- apply fumigant well into the burrow
- seal the burrow
- treat every burrow individually
- re-check all treated burrows, 2-5 days later

Steps in fumigation: -

1. Identify all burrows, warrens and surface harbour

Identify all areas with warrens and rabbit activity. Record this information on a farm plan that shows all areas of harbour, and feeding grounds.

2. Remove surface harbour

"leave no home for the rabbit"

Identify all areas of above ground surface harbour. Above ground surface harbour can prevent access to rabbit burrows and/or provide safe refuge for rabbits when you are fumigating burrows. All weeds (blackberry, boxthorn, furze/gorse, briars, and thistles), bracken ferns, fallen timber, logs, and stumps will prevent access to the burrow. Above ground surface harbour helps in the survival of the rabbit on your land.

3. Put the rabbit in the burrow

Fumigation will only be effective on those rabbits that are in the burrow when it is fumigated. Use dogs to roam the area to be fumigated, make lots of loud noise (stones in tins), and sheep rattles etc. force the rabbits into the burrows.

4. Dig burrows back

Find the shallow openings to the burrows, (the ones that usually cave in when you stand on them) and then dig the openings back to solid ground. This helps make a proper seal during fumigation with less chance of the rabbits escaping.

5. Select the fumigant

Read the product label carefully before using any pesticide and follow all label instructions.

There are two chemicals that are the active ingredients for registered fumigants in Victoria; chloropicrin and aluminium phosphide. Chloropicrin is a colourless oily liquid with a sharp penetrating odour. Upon contact with air it forms a gas. Because the gas is denser than air it is able to penetrate the burrows. Aluminium phosphide comes in the form of tablets, which are activated by moist air to form phosphine gas.

6. Fumigation with aluminium -phosphide

Read, understand and follow the instructions given on the label

Most rabbit fumigant products are poison schedule 7 chemicals. All persons using schedule 7 fumigants must have an Agricultural Chemical Users Permit or be under the direct supervision of an ACUP permit holder.

When fumigating with aluminium phosphide tablets damp soil conditions give the best results.

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The use of an "*Echo Smokey*" to create a signal smoke will show burrow exits and will help you locate all the holes to a burrow/warren system. This greatly increases your success in fumigation. If you are not using a Smokey/signal device treat each hole separately.

Eleven steps in aluminium phosphide fumigation

1. **force all surface rabbits into burrows**
2. **locate burrow entrance**
3. **seal all exists**
4. **wrap two tablets in moist newspaper/paper towel**
5. **put the tablets well into the burrow**
6. **place an old bag/newspaper in the mouth of the burrow to stop any soil falling on the tablets**
7. **seal burrow entrance (s)**
8. **treat each burrow in the warren individually**
9. **revisit the site each day for the next few days to check for entrances that have been opened**
10. **look for sources of re-infestation (weeds, logs that might harbour rabbits)**
11. **re-fumigate all active burrows and destroy / rip / dig out all non active burrows**

7. Fumigation with chloropicrin

Read, understand and follow the instructions given on the label. Only experienced operators should use this product

Fumigation with chloropicrin can be achieved with a handgun or a power fumigator.

Hand gun

Chloropicrin can be applied with a specialised handgun. The fumigant is squirted into the hole and the burrow is immediately sealed. This is repeated until the whole warren has been treated with chloropicrin and all burrows sealed. Chloropicrin used in this way takes about an hour for the gas to penetrate the whole warren.
It is important not to cover the chloropicrin up with soil as you fill the hole in.

Power fumigator

The most effective and efficient way to fumigate rabbits is to use a power fumigator. There are two types of power fumigators that may be available from NRE or Landcare/Rabbit Action Groups. One is the conventional model, which needs to be transported by a vehicle, and the other is a lightweight model that can be carried by hand. Both use small horsepower motors and a blower driven by the motor to blow smoke and the fumigant into the burrow. The method of operation is to drip oil/diesel onto the hot exhaust of the fumigator to produce a signal smoke. Then using the blower to force the smoke into the burrows. This shows all the interconnected holes. All of these holes except the one furthermost downwind of the fumigator should be sealed. Seal these exists with soil until no smoke comes out.
The chloropicrin is then turned on and blown into the burrow system at the rate as the label. Follow label instructions turning off the chloropicrin tap and seal the hole furthermost from the fumigator that was left open. Turn the fumigator off and withdraw the hose and seal this last hole. If the warren still has unfilled holes that no smoke came out of, they must be treated as separate unconnected burrows and the power fumigator should be moved around until all holes are fumigated and closed. Power fumigation is far superior to other fumigation methods because the gas is forced through the whole warren.

8. Safety: chloropicrin

Only experienced or trained operators should use this product. Chloropicrin is a dangerous gas that can affect humans. The liquid chloropicrin becomes a deadly gas immediately upon contact with air. Respirators should be worn when using chlorpicrin. It is most important to use the respirator while filling or draining the chloropicrin tank.

Monitoring your efforts

"Money for old rope"

Warrens must be checked for re-opening within 1-3 days of treatment, any re-opened burrows should be re-treated and then destroyed.
Spotlight the treated warren(s) and surrounding areas, as this will give you an idea of any remaining rabbits. Take immediate action to control those rabbits and remove above ground harbour they may seek as cover.

Protect your investment

"Have a goal: aim for rabbit free!"

Check the rabbit prone areas, by spotlighting, monitoring warrens for active burrows, and looking for rabbits 2 hours prior to sunset at least 4 times a year, early summer, autumn, mid winter and during spring. All land managers can protect their investment by monitoring rabbit populations and taking immediate action as soon as rabbits are found. Controlling rabbits when populations are low saves pasture, native vegetation and money!

Further information

Your Catchment Management Officer from the Department of Natural Resources and Environment will help you with any further information you may require.