

User Guideline for Rabbit Control with Pindone Pellets in Marlborough

Version 3
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The material in this guideline has been sourced from the Awatere/Medway Rabbit Focus Group with support from Marlborough District Council.

TABLE OF CONTENTS

Definitions	3
Objective	3
1. Identifying the Problem	3
2. Poison Operation Planning	5
3. When to carry out control?	6
4. Carrying out the Poison Operation	6
5. Secondary Control	10
6. Other Important Notes	10
Take Home Messages	11

DISCLAIMER

This document is designed as a hands-on guide. It does not replace the legal requirement for reading the product label instructions carefully and ensure all safety precautions are followed.

take place within 60m of public roads. This requirement is no longer apparent in the new HSNO or ACVM legislation. However, such caution can still be used and if required, hand laid toxin can be used in such buffer areas.

- Currently, the hand application of vertebrate toxic agents on all land, and aerial application on private land is a Permitted Activity under the Wairau Awatere Resource Management Plan. Application to water is not a permitted activity. In some cases, Resource Consents have been obtained to safe-guard the potential issue of application to water.
- There are cases where the landholder can operate as the Controlled Substance Licence (CSL) holder. There are some basic obligations when acting as the CSL holder:
 - Ordering the product under the CSL.
 - Ensure the product is securely stored.
 - Ensure appropriate signage is in place.
 - Be on-site during the application of the product (to ensure all legal requirements are being met).
 - Ensure the signage remains in place for the specified duration.

Take Home Messages

1. Getting a high quality job carried out on the first hit is very important for the long-term benefit. A sub-standard poison job will require addressing far sooner and will be far more costly, for example, over a ten year period.
2. Approach Council Biosecurity staff with any questions and/or queries regarding rabbit control. Alternatively, there are some experienced landholders in the community that can be approached.
3. As is well known, rabbits have huge breeding potential given the right conditions. It is far easier (and cheaper) to respond to an increase from a low population base than respond to a huge boom in numbers from a high population base.

Neophobia

- Rabbits can get wary of new things in their environment – termed neophobia. As a result, using the same **bait** product repeatedly may be only controlling those that are not neophobic. This could in turn be selecting for neophobic rabbits in the population.
- Avoid frequent and repeated use of the same bait product. No more frequent than once every 5 years (similar caution to using 1080 toxin).
- Mix-up control techniques on any remaining pockets. Shooting, fumigation, gun and dog and using an alternative bait i.e. carrot/oats are all possibilities for smaller pockets.

5. Secondary Control

- Secondary control (or follow-up control) is as important as or even more important than the initial knock-down. Secondary control is the period where you extend the long-term benefit of the knock-down poison operation.
- It is important to wait a minimum of 1 month after the final application before beginning shooting in the poison block. This is to let the poison do its job and let any remaining rabbits settle before 'getting in there'.
- Control methods can include most commonly shooting but also patch poisoning areas that may not be conducive to shooting. Pindone pellets can be used again but be aware that using another bait (such as carrot with liquid pindone) may be suitable with only small-scale follow-up jobs.

6. Other Important Notes

- **This document is designed as a hands-on guide. It does not replace the legal requirement for reading the label instruction carefully and ensure all safety precautions are followed.**
- When loading large numbers of bags for an aerial job, it is recommended to burn the empty bags on-the-spot.
- The now superseded Pesticide (Vertebrate Pest Control) Regulations 1983 did specify that application of toxins could not

Definitions

ACVM Act 1997 - Agricultural Compounds and Veterinarian Medicines Act 1997 (administered by NZ Food Safety Authority).

HSNO Act 2001 - Hazardous Substances and New Organisms Act 2001 (administered previously by ERMA but now by the newly formed Environmental Protection Authority).

Objective

The objective of this Guideline is to provide detailed information for landholders and contractors who are looking to manage rabbit populations with pindone pellets and to ensure the control is carried out to the highest quality. This in turn will provide both sustainable control and lower long-term costs associated with rabbit management.

Whilst pindone pellets are not the only tool available for rabbit control (i.e. liquid pindone or 1080 on carrot bait), it is currently the most readily available in Marlborough. A benefit of using pindone is the faster return time of stock to the block.

To make this guideline read as easy as possible, information has been broken down into the crucial phases of a poisoning operation. Important points are highlighted in the shaded boxes.

1. Identifying the Problem

- A block or area may be identified by Council inspectors as requiring control because populations are present above the Maximum Allowable Level (see next point) or a landholder may observe populations increasing. The way to assess rabbit levels is by using the Modified McLean Scale. This scale is a nationally accepted measure to assess rabbit levels.

Using Pindone Pellets for Rabbit Control - Guidelines

Scale	Feral Rabbit Infestation
1.	No sign seen. No Feral Rabbits seen.
2.	Very infrequent sign seen. Unlikely to see Feral Rabbits.
3.	Sign infrequent with faecal heaps more than 10 metres apart. Odd Feral Rabbit may be seen.
4.	Sign frequent with some faecal heaps more than 5 metres apart, but less than 10 metres apart. Groups of Feral Rabbits may be seen.
5.	Sign very frequent with faecal heaps less than 5 metres apart in pockets. Feral Rabbits spreading.
6.	Sign very frequent with faecal heaps less than 5 metres apart over the whole area. Feral Rabbits may be seen over whole area.
7.	Sign very frequent with 2-3 faecal heaps often less than 5 metres apart over the whole area. Feral Rabbits may be seen in large numbers over the whole area.
8.	Sign very frequent with 3 or more faecal heaps less than 5 metres apart over the whole area. Feral Rabbits likely to be seen in large numbers over the whole area.

- The Marlborough District Council Regional Pest Management Strategy rules require rabbit levels to be kept at or below Level 4 in the Upper Awatere and Level 3 for the remainder of the district.

IMPORTANT	Rabbits do not understand property boundaries. For best results, you should work with neighbours to both reduce control costs and avoid re-infestation.
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- Shooting can be a very valuable tool at low levels. However, when numbers get up to or above Level 4, and there is plenty of scrub cover, shooting on its own should not be seen as a primary control tool.
- At those low-moderate levels where shooting is used, persistent, low profile shooting will ensure the rabbit do not become fractious and give a false sense of success.

IMPORTANT	Shooting 100 rabbits out of a total population of 5,000 is merely target practise. Shooting 5 rabbits out of a population of 50 following a poison operation is more worthwhile.
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Using Pindone Pellets for Rabbit Control - Guidelines

- In the unfortunate event of a rain event coming through soon after an application, consider that application a failure and reassess the job. Re-application should be held off for a minimum of 14 days.

IMPORTANT	A final decision on application rates can be made on the day. This is where the combined experience of the aerial operator, contractor, and landholder can play an important role.
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The Application (Ground)

- Application via ground methods could include direct application using hand tools or the use of a specific delivery trailer. The method of application will depend on the nature of the block and the size of the control area.
- Small isolated pockets may be more suitable to hand application, whereby a larger area that is easily traversed with a quad bike may be more suitable with a trailer.
- Hand application may include the use of earth spits. A sod of earth is overturned with 10-12 pellets placed per spit. Spits can be placed every 2-3m in a line through the target area. This is suitable for a medium rabbit density. Pellets can also be lightly broadcasted through areas showing the greatest degree of sign and feeding activity. Target those feeding areas **NOT** areas of harbour/warrens.
- Application rates can be hard to estimate using ground application methods. If using a trailer, it can be calibrated to apply approximately 4 kg/km of line. This rate would be suitable for Level 4 rabbits. The lines can be run through open feeding areas at a spacing of 40m. A trailer may also be fitted with a tine to disturb the ground on the first feed which can help bring the rabbits to the line.
- The same principles apply with Ground applications in terms of suitable conditions, signage, and monitoring bait take.
- Take the bait to the rabbit. Rabbits do not have large foraging distances so target those feed areas.

The Application (Aerial)

- If using a helicopter, the pellets can be moved to a handy or central location for loading. This eliminates the need to fly over non-target areas with a loaded bucket.
- The standard rate of pindone pellets is **two** applications at approximately 4 kg/ha based on Level 4 McLean rabbit infestations. If dealing with very high rabbit densities (McLean Scale 6+), this rate can be increased to 5 or 6 kg/ha. Conversely, with lighter infestations, the rate could be brought back down to nearer 3 kg/ha.
- The two applications are ideally carried out 10-14 days apart. The product specifies 7-10 days but local experience has shown a slightly longer period can also be effective if required.
- There is degree of variation in terms of actual flight lines and swath widths used when aerially applying pindone pellets. However, it is common best practise to concentrate the bait into 'feed lines' leaving gaps in-between. Such examples include a 90m swath, 110m flight spacing (20m gap) down to 20m swath, 80m flight spacing (60m gap). At this stage, there is no empirical evidence suggesting one approach provides superior control over the other.
- This approach of bait application has the aim of concentrating the pellets into 'feed lines' to ensure any rabbit does not have to forage too far for their quota of pellets. As a result, a more concentrated feed line has the theoretical advantage of reducing the forage time of the rabbit.
- By monitoring bait take, the application rate for second feed can be adjusted accordingly. The goal is to have some, not a lot, of pellets still on the ground 2-3 days after the second feed. If both feeds disappear, target those areas with a possible third feed.
- With the use of GPS, the second application can be run in-between the lines used for the first application.
- More so in winter than late summer/autumn, the application can be more targeted following specific landscape features. For example not applying over heavy scrub, bush or cold shady faces. Conversely, bait can be targeted to sunny, high activity faces and likely habitat. This can be more easily achieved when using a helicopter.

2. Poison Operation Planning

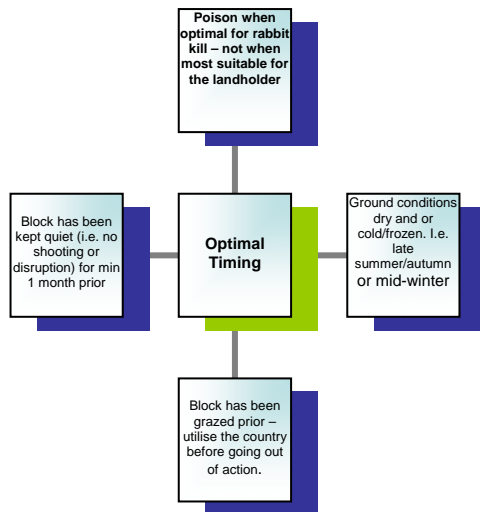
- Once you have an area identified, you will then need to calculate the number of hectares that require treatment (the Council can assist with mapping). If the country is relatively steep, you will need to add 10% to the area calculation to allow for topography. This is where you will determine bait application rates keeping in mind this may vary (see following sections).
- Choose your bait/poison product - for the purposes of this guideline, it will be pindone cereal pellets.
- Order the product well in advance and ensure you add a contingency amount. You will not want to find you run short on the application day. Left-over pellets can be stored correctly and used for some patch, mop-work at a later date.
- For example, calculate the amount of product (P) :

$$P = Ha \times 4kg \times 2 \text{ applications}$$

$$P = Ha \times 8kg (+10\%)$$

IMPORTANT	<p>If storing pellets for any length of time either before a large job or for small-scale use you must ensure:</p> <ol style="list-style-type: none"> 1. The plastic wrap (if any) is removed off the stack of bags 2. The bags are loosely stored in a cool, dry, well ventilated, rodent free and secure area. Any concrete lined area is ideal. 3. The pellet quality is being maintained – check a random bag periodically to make sure the pellets are still dry and in good condition. 4. The maximum recommended storage time from the manufacturer is 12 months from the date of manufacture. <p>Letting the product degrade is both a waste of money and can seriously compromise the success of the poison job – again, costing money in the long-run.</p>
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3. When to carry out control?



- The timing of a poison operation relies on aligning a number of environmental and operational factors.
- In late summer/autumn, ground conditions can burn off with little or no fresh pick. In winter, grass growth can taper right off (coupled with hard frosts) with rabbits looking for other food sources.
- Grazing the blocks out will have the target of removing the bulk of herbage and force

rabbits to more readily accept alternative food sources i.e. bait.

- Deciding on the final go-ahead will depend on the local weather conditions. A period of good weather during application and post-application is important for success.

4. Carrying out the Poison Operation

Notification and Signage Requirements

- If planning to poison aurally, public notification must be carried out. ACVM Act Condition 48: "...public must be given sufficient notice prior to the application...". To meet this requirement, it is recommended public notification be carried out ideally 2 weeks and no less than 1 week prior to application.
- The notice must include: a) what is being used; b) when it is to be used; c) where it is going to be used; d) the responsible person; and e) appropriate warnings in regard potential harm (dogs should be kept out of the area). You cannot poison before the stated date but must carry out the job within 2 months of the notification.

- Multiple properties can join together for the public notification to save on costs.
- Before the poison is applied, appropriate signage must be in place. Signs must be posted in prominent places around the perimeter of the treated area. If the treatment area is landlocked within a property, signage must still be displayed.
- The signs must remain in place until monitoring confirms that the product is no longer present. Without monitoring, a minimum of 8 months.
- Signs must state: a) that it is an offence for any person to remove the sign(s) prior to clearance of the area; b) that it is an offence for any person (other than the applicator) to remove/move baits from the area; c) Warning of potential harm to dogs.
- In addition to the signage restrictions put in place by ACVM Act 1997 the HSNO Act 2001 also states:
 - (4) The signs must remain until—
 - (i) in the case of ground-based application of the substance—
 - (a) 2 months after the substance has been retrieved from the place; or
 - (b) if the substance is not retrieved, 8 months after the last application of the substance; or
 - (ii) in the case of aerial application of the substance, 8 months after the last application of the substance.
 - (5) Signs must be removed at the later of
 - (a) when they are no longer required to remain under subclause (4); or
 - (b) in the case of signs that include information to which a legal obligation applies that requires the signs to remain in place for a longer period of time, the expiry of that longer period of time.
- Templates for signs can be found at the EPA website: http://archive.ernanz.govt.nz/hs/industry/VTA/signs_warning.html. Alternatively, contact Council for an electronic copy of the template. These can be taken to a printer to get copies made on suitable material.

IMPORTANT

In essence, ensure signage is displayed a minimum of **8 months** after the last application.