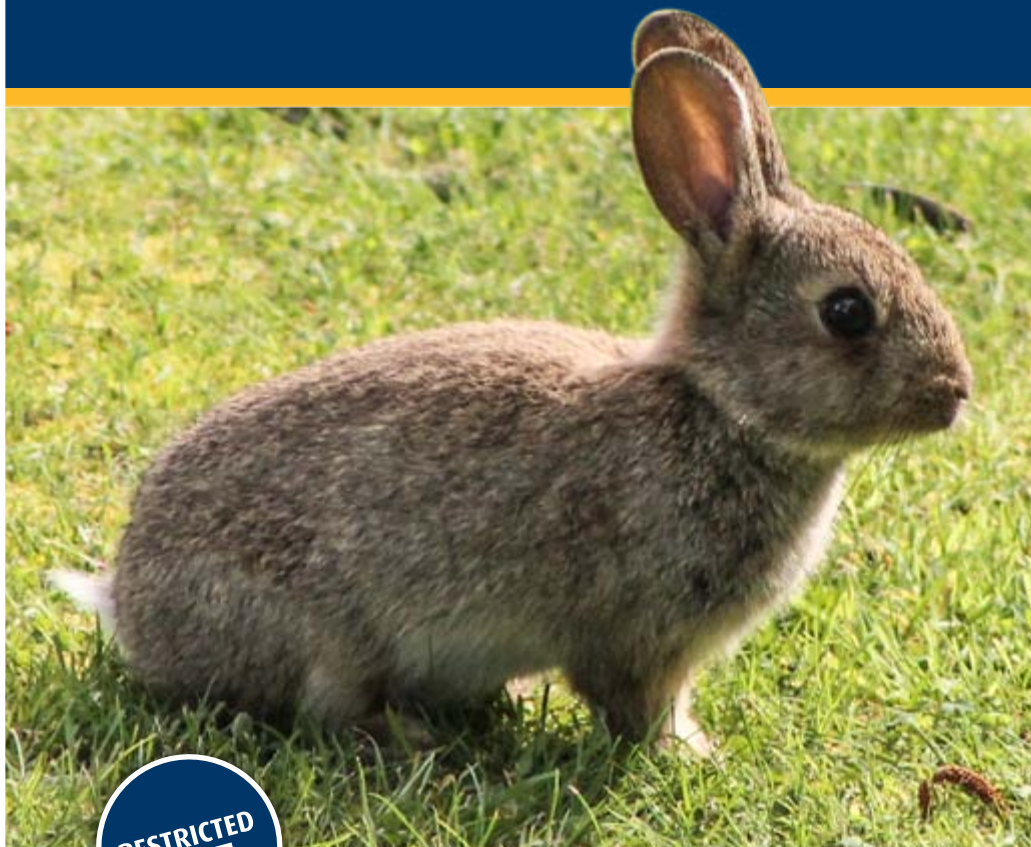


Rabbit control options



**RESTRICTED
PEST**

CONTENTS

European wild rabbit	3	Exclusion fencing	14
Description	3		
Origin	3	Repellents	14
Where are rabbits found?	3		
How do rabbits spread?	3	Habitat manipulation	16
Why are rabbits a problem?	3		
Status as a pest animal in the Bay of Plenty	3	Trapping	16
How do I get rid of rabbits?	4		
Damage caused by rabbits	4	Nightshooting and rifling	17
Rabbit signs	4	Suitable firearm	17
Commercial pest controllers	4	Suitable spotlights for nightshooting	18
		Techniques for nightshooting	18
Poison	5	Planning a nightshoot	19
Chronic poisons	5	Spotlight techniques	20
Acute poisons	5	Shooting techniques	21
Controlled substance licences (CSL)	5	Use of vehicles and motorbikes for nightshooting	21
General points to consider before poisoning	6	Vehicles	22
Poisoning methods	7	Motorbikes	22
Laying baits	8		
Practical control options for landowners	9		
Safety with rabbit poisons and fumigants	10		
Fumigation	11		
Suitable fumigants for rabbit control	11		
How to fumigate a rabbit burrow	12		



European wild rabbit *Oryctolagus cuniculus*



Description

Body: Small burrowing herbivore with long ears and hind legs.

Colour: Grey brown with a black rim on ears and brown eyes. Colour may vary if crossed with escaped pet varieties, usually black and white.

Size: Rabbits grow to a body weight of 1.3 to 2.1 kg (adult male).

Origin

Native to Europe, introduced into New Zealand in 1850s.

Where are rabbits found?

Rabbits can readily adapt to most environments, and readily take up residence in a wide range of habitats. They are generally found around farmland, coastal environments, urban gardens and parks.

How do rabbits spread?

Rabbits are very adaptable, are highly mobile and can breed at a young age. Females can be pregnant 70 percent of the time, meaning numbers can build quickly.

Why are rabbits a problem?

Rabbits are an agricultural pest affecting soils, availability of stock food in very high numbers and crop production.

They compete with stock for pasture and cause erosion through the disturbance of soil.

Status as a pest animal in the Bay of Plenty

Restricted Pest Animal (refer to the *Bay of Plenty Regional Council Regional Pest Management Plan*).

Landowners are not required to control rabbits on their property but are encouraged to do so.

Bay of Plenty Regional Council will offer advice and support to landowners to assist in controlling populations. Financial assistance may be available from Bay of Plenty Regional Council by way of approved programmes.

How do I get rid of rabbits?

- Poisoning
- Fumigation (of rabbit burrows)
- Exclusion fencing
- Use of repellents
- Habitat manipulation
- Trapping
- Commercial pest controllers

Damage caused by rabbits

Rabbit burrows are probably the most obvious form of damage noticeable. However, these are not always present or may be concealed under buildings or other cover. Rabbits will damage lawns by scratching soil or eating new plant growth, they will also browse the top of older plants. Freshly turned soil is irresistible to rabbits.

Small trees and shrubs may have the bark of their trunks and lower branches bitten (trees may be killed by ring-barking in severe cases) and their root systems may be exposed as a result of rabbits scratching around their bases.



Rabbit damage on plants and ground

Rabbit signs

Rabbits are generally nocturnal, but are frequently seen outside their burrows during the day, particularly dawn and dusk.

As well as the signs previously mentioned, rabbits leave droppings in small heaps or scattered throughout their feeding areas. Droppings are generally dark in colour, oval-shaped and approximately 8 to 10 mm in length.

Alternatively, a Bay of Plenty Regional Council Land Management Officer can verify whether rabbits are present or not.

Commercial pest controllers

If you have concerns about using any of the following techniques to control your nuisance rabbits, contact your local Bay of Plenty Regional Council Land Management Officer who will recommend a suitable pest control contractor.



POISON

Poisons offer a cost-effective approach for reducing medium to heavy infestations of rabbits. Low numbers of rabbits can also be effectively controlled with suitable poisons. Care is required with poisons. Indiscriminate use will not only fail to properly control rabbits, it may also endanger human life, domestic stock, pets and native wildlife.

Two types of poison are commonly used for rabbit control: chronic poisons and acute poisons.

Chronic poisons

These poisons are usually slow acting and have a cumulative effect; rabbits must consume several applications of treated baits over a number of days to acquire a lethal dose. Chronic poisons are relatively safe to handle and a Controlled Substance licence (CSL) is not usually required to purchase or use.

The most commonly used rabbit poison of this type in the Bay of Plenty is Pindone, though a CSL is not required to purchase or use Pindone in a baitstation, a CSL is required if using bait-mats or hand broadcasting pindone onto the ground.

Acute poisons

These poisons are fast acting and will kill rabbits after a single dose. Acute poisons are potentially hazardous and are controlled pesticides i.e. a CSL is required to purchase and use such poisons. Due to the requirement of a CSL, it is imperative that a qualified and experienced operator be engaged to carry out the work, to ensure it is completed safely and effectively.

Controlled substance licences (CSL)

A Controlled substance licence (CSL) is required to possess (purchase and use) certain explosives, vertebrate toxins and fumigants. To obtain a CSL you must complete the application form available on the Environmental Protection Agency (EPA) website, this includes the completion of an Approved Handler Certificate, a course required to be undertaken before obtaining a licence. For more information search the EPA website.

General points to consider before poisoning

1. Within rabbit habitats there are specific feeding areas, target these areas when undertaking control operations.
2. During the main rabbit-breeding season (late winter to early summer) bucks vigorously defend their territorial boundaries and young rabbits do not travel far from their burrows. It is not advisable to try poisoning during this time.
3. Prevent any hunting within the area to be poisoned for at least three months prior to the intended operation. A quiet rabbit population will generally accept baits more readily allowing a good kill to be achieved.
4. Before starting an operation test the rabbit acceptance of baits. For small poison operations, pre-feed baits (i.e. baits containing no poison) can be laid within one or two rabbit feed areas. Check baits over several days to ensure that rabbits are eating them.
5. Plan stock movements in advance to accommodate the intended poisoning operation. Where baits are in paddocks, it may be a month or more (depending on weather) before uneaten baits degrade sufficiently to be non-toxic to stock. If using baits on spits, stock still need to be excluded from the operation area for two to three weeks during the course of the operation.
6. In the North Island, late autumn and winter months are good times for poisoning. During this period, rabbit acceptance of baits is generally good.
7. Notify all adjoining land occupiers of the intention to lay poisons. It is possible that poisoned animals may die on their land and expose dogs to secondary poisoning risks, depending on the bait used this risk may be low.
8. Ensure that compliant warning signs are erected at all access points to the land being treated.
9. Consider the weather before laying baits. While rain may not completely wash baits out, it will affect the toxicity of poison baits. This may lead to rabbits eating sub-lethal baits, which often results in bait shyness.

Poisoning methods

HAND BROADCASTING (for CSL holders only)

This is the easiest and most common method of bait application but requires a CSL. Baits are scattered by hand at the appropriate rate over areas containing rabbit sign. This method is suitable for applying pellet and carrot baits and baits can be very targeted. Take care to avoid spreading or spilling poisonous baits outside the target area.

BAITSTATIONS (may not require a CSL depending on the type of toxin)

Rabbit specific baitstations are available for poisoning operations; a number of options are available. While baitstations may have an advantage of not requiring a CSL, generally rabbits are cautious about feeding from them. For this reason results when using baitstations can be quite variable.

SPITTING (for CSL holders only)

Spits are simply sods of earth upturned with a spade or grubber. The smell of freshly turned earth reportedly attracts rabbits. This is an ideal method for treating small areas, but can be used in larger areas if paddocks are needed for grazing. Compared with broadcasting, this method is labour intensive therefore is not commonly undertaken.

AERIAL APPLICATION (for CSL holders only, requires resource consent)

This option is generally only considered for landscape scale control, with high density infestations and difficult access, cost-effective control is normally achieved by using top-dressing planes or helicopters to apply baits. Before considering this option, discuss your rabbit problem with the local Bay of Plenty Regional Council Land Management Officer.

Bay of Plenty Regional Council Land Management Officers are available to assist with assessing rabbit infestation levels. They will offer advice on appropriate baiting methods and bait application rates, some bait (including Pindone) is available for sale at some Bay of Plenty Regional Council Offices.

Laying baits

1. Use good quality fresh bait. Rabbits are selective feeders and will reject stale or tainted baits, ideally order the bait immediately prior to the operation start. If using carry bags to transport bait ensure that they have been cleaned in fresh water. Do not use detergents as these are readily sensed by rabbits.
2. When using chronic poisons deploy ample bait. It is better to slightly over-feed than not to apply enough bait. Ideally it should take the resident rabbit population three to four days to eat all bait applied to feed areas. If all bait has been eaten within this time, the block has been underfed and the second feed should be applied at a higher application rate. If there is still bait remaining after four days, reduce the second feed accordingly.
3. Be thorough; ensure that all areas containing rabbit sign are treated with baits.
4. When applying baits in lighter rabbit infestations, it is better to lay more lines with less bait rather than few lines that are heavily baited. Coverage is very important to achieve a high success rate regardless of the level of infestation.
5. Where acute poisons are used, pre-feed baits must be available to the rabbits for at least one week. It is normal to apply at least two pre-feeds before the application of toxic baits when using acute poisons. Some individual rabbits may be hesitant feeders and must be given adequate time to accept baits.



Practical control options for landowners

USING PINDONE RABBIT PELLETS

Pindone is one of the more widely used poisons for rabbit control as while rabbits are particularly susceptible to Pindone, non-target species such as cats and dogs are five to six times more resistant and humans are 100 times more resistant. This makes Pindone, when used correctly, a safe poison to use in the urban environment. However, as with rat baits, which contain similar poisons, it is essential that the manufacturer's instructions are followed.

Like most anticoagulants, Pindone is slow acting and requires the rabbit to consume baits over several days to be effective, with this in mind it is considered to be a humane poison.

Should a domestic pet gain access to baits and accidental poisoning is suspected, the animal should be taken to a vet who will administer Vitamin K1, which is an effective antidote.

DIRECTION FOR USE WITHOUT BAITSTATIONS

First, read the instructions attached to the poison bag explaining the correct handling of Pindone poison.

A controlled substance licence is required to lay Pindone directly onto the ground.

Ensure that no domestic stock or pets have access to the treatment area. Thoroughly inspect your property to locate all rabbit signs as it is critical that all rabbit areas are treated. Apply two applications of bait at three to four day intervals, using one of the following methods:

- Using a spade or grubber, dig and upturn a sod of earth (spit) near rabbit droppings or scratchings and place 10 to 15 pellets on each spit.
- Lightly broadcast pellets on areas of rabbit sign.

If you have concerns about children or pets accessing baits during the day, apply the pellets at dusk and pick up any uneaten pellets in the morning.

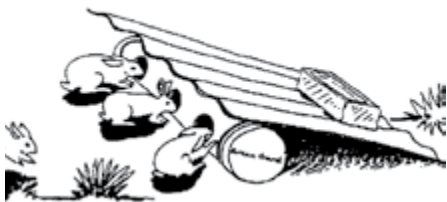
USING BAITSTATIONS WITH PINDONE RABBIT PELLETS

Baitstations can be used in situations where it is undesirable to have poison pellets lying on open ground.

Baitstations must:

- Be a rigid reusable device or container that physically contains the bait.
- Be positioned appropriately to minimise contact with humans.
- Minimise the ability for non-target animals such as dogs to access the bait.
- Protect baits from adverse weather.
- Not deter target animals like rabbits.

For baitstations to be successful, they need to be positioned correctly, like in rabbit feeding areas. For a large number of rabbits, increase the number of baitstations and spread them through areas containing rabbit signs. For assistance on correct bait station placement, contact Bay of Plenty Regional Council Land Management Officer.



Safety with rabbit poisons and fumigants

All pesticide containers are labelled with handling and storage instructions, poison symptoms and first aid treatment. Ensure you read and thoroughly understand these instructions before attempting to use any poisons.

The main points to consider are:

- Suitable storage in a lockable cupboard or shed. The storage area should be cool and dry and must not contain any foodstuffs, sprays or fuels to avoid contamination risk.
- Wear appropriate protective clothing while handling poisonous bait or material e.g. overalls, rubber gloves and boots.
- Remove protective clothing and wash hands before eating or smoking after handling poisons.
- Comply with handling instructions as stated on the poison container label.
- Dispose of empty poison bags or containers according to the manufacturer's instructions.
- Warn neighbours and the public of poisoning operations.

FUMIGATION

Contrary to popular belief, rabbits do not always live in burrows, they can be quite happy living under buildings or in patches of heavy cover. However, if you happen to see rabbits using a burrow they can be controlled by fumigation.

Fumigants are poisons used to kill rabbits in their burrows. When a fumigant is introduced to a burrow system it produces toxic fumes, which are inhaled by the rabbits causing death by absorption through the lungs.

The main advantage with using fumigants is that the operator does not have to rely on the rabbit eating poison bait. It is also a very effective method of controlling young rabbits which do not wander far from their burrows and are normally difficult to poison and shoot.

Fumigation is a labour-intensive control method and is best used to control medium to low density populations or in conjunction with methods such as night shooting or as a follow-up method after poisoning.

Suitable fumigants for rabbit control

The most commonly used fumigant for rabbit control currently is Magtoxin, which produces phosphine gas when exposed to moisture. After decomposition it leaves a grey-white powder, this is not considered to be a hazardous waste

While other fumigants are available, we do not recommend they are used if not an experienced pest controller.



How to fumigate a rabbit burrow

EQUIPMENT NEEDED

- Fumigant.
- Spade or grubber.
- Protective clothing such as overalls, rubber gloves.
- Respirator may be required when using some fumigants.

METHOD

Fumigation can be used to control rabbits in two ways: firstly to kill rabbits that are seen to run down a particular burrow, or block fumigation i.e. the fumigation of burrows that are encountered while systematically searching paddocks. When carrying out block fumigation, it is a good idea to use a dog to hunt the area first. This helps to drive rabbits into cover underground. It is essential that dogs in the vicinity are under good control and restrained before you start fumigating.

If you are dealing with only occasional rabbit burrows, check the surrounding area for other possible entrances once a burrow is discovered. Burrows often have more than one opening.

Next, using the spade or grubber, cut back the opening of the burrow so you have easy access to the burrow. Then cut a sod of earth the appropriate size to completely block the entrance and place it within reach of the entrance.

As you prepare to apply the fumigant to the burrow, ensure that you are

positioned so that any escaping fumes are blown away from you by the wind rather than toward you. Take the correct amount of fumigant (usually 1-2 tablets per burrow) from the container and immediately close the container.

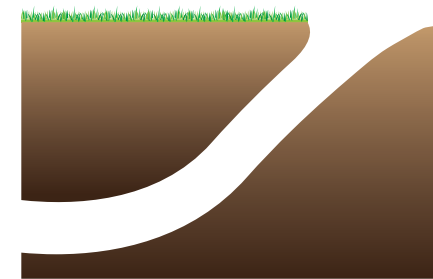
Place the fumigant tablets at least 30-40 cm into the burrow. Immediately seal the burrow by placing the sod of earth, grass side down (this prevents loose soil from falling onto the fumigant and burying it) into the entrance and stamping it in to make the burrow as air tight as possible.

Then back fill the entrance area of the burrow and try to level the ground off to remove as much of the entrance as possible. Systematically fumigate all burrow entrances found.

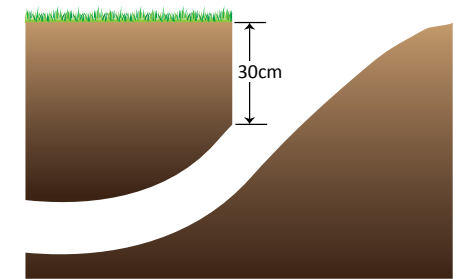
If you are using Magtoxin in very dry conditions, it is advisable to place a piece of damp paper or cloth down the burrow after the fumigant has been applied. This will speed the generation of phosphine gas.

If a burrow is discovered that is obviously not in use (cobwebs in the entrance are good indicators of this) there is no point in applying fumigant. However, ensure you properly block these burrows to prevent rabbits from using them in the future.

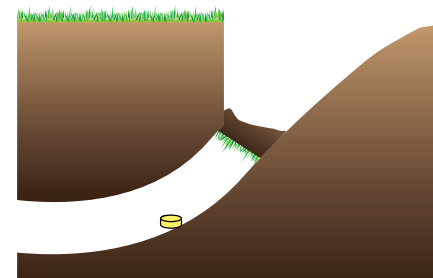
Method of placing fumigant in rabbit burrow



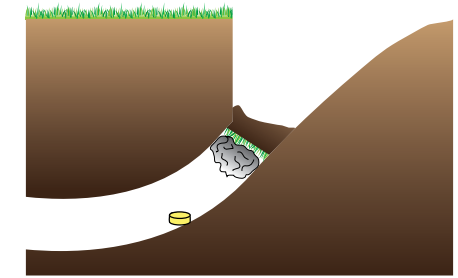
1. Original opening



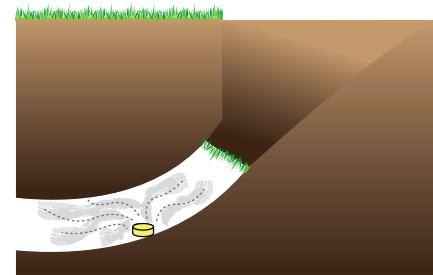
2. Cut back opening



3a. Placement of fumigant tablet and earth sod



3b. When using Magtoxin in very dry conditions - placement of fumigant and damp newspaper or cloth before the earth sod.



4. Filled in opening

EXCLUSION FENCING

Gardens and specific crops can be protected by preventing rabbits from gaining access to them. This is usually achieved by fencing.

To be effective, a rabbit-proof fence should be at least 80 cm in height and made from galvanised wire netting with a maximum mesh size of 3 cm.

As rabbits are capable of digging under fences, the bottom of the netting should be buried 20 cm into the ground or turned out along the top of the ground in the direction that the rabbits will attempt to enter. Gates through the fence must be close fitting,

preferably with a concrete sill under them to prevent rabbits from burrowing underneath.

Individual shrubs and trees can be protected by using rabbit netting cylinders, plastic sheaths or steel guards. Electric fencing can also prevent rabbits from damaging crops and gardens.

REPELLENTS

Repellent preparations are designed to render plants unpalatable and unattractive to browsing rabbits.

Repellents are generally applied as foliar sprays, which have to be reapplied periodically to treat new growth occurring within browsing range (40 cm–50 cm above ground level). Spray-on repellent solutions should not be applied to the point of run-off as with other garden sprays. Adhesives in repellent mixes can block plant stomata when heavy applications are used, especially on delicate or bipinnate foliage. A coarse droplet size and a 50% foliar coverage overall are adequate for repellent spray application.

The following commercial preparations are available through garden centres and agricultural merchants:

- 'Thiropsect' a thiram-based repellent.
- 'Treepel' an egg-based repellent.
- 'Plantskydd' a new product (has been tested successfully in trials). Available from Newfield Marketing, Christchurch.

If using repellents on a small scale, the following 'homebrew' options can also be considered.

EGG MIX:

4 size six eggs
100 ml water-based paint
900 ml water

Mix eggs and paint together, then add water. Pour through strainer into spray applicator. This mix does not persist as well as commercial egg preparations and usually has to be reapplied at three-weekly intervals.

THIRAM MIX:

50g thiram fungicide wettable powder
100 ml water-based paint
900 ml water

Mix thiram powder with a little water to make a paste, then add rest of water and the paint. Thiram provides good protection but remember it is an agrichemical – avoid skin and eye contact and inhalation of spray mist.

Note all label instructions regarding use and handling, as well as first aid information.

MUTTONFAT AND KEROSENE:

Mix one part kerosene to 10 parts soft (heated) mutton fat and allow to set.

Wipe on stems and foliage with rubber gloves or a cloth, leaving minimal visible fat. Apply sparingly because foliage, especially on broadleaf species, can be burnt if too much is used.

The following methods can also be considered:

- Spray the lower parts of the trees in spring with a strong lime sulphur wash.
- A strong solution of Jeyes fluid will give temporary protection if sprayed evenly around the plants.
- Sprinkle the garden with naphthalene moth balls or blood and bone fertiliser.



HABITAT MANIPULATION

Rabbits will generally only inhabit suitable territory. Habitat changes which make territory less desirable to a rabbit population will lead to reductions in the numbers of rabbits present in that territory.

This is termed 'habitat manipulation' and it can have a more permanent impact on rabbit numbers than control methods such as poisoning.

Unfortunately, gardens and lawns with short grass, variety of foods and cover in the form of garden sheds, wood piles, dense vegetation to live under, can offer rabbits a very good habitat.

Remove any piles of wood or rubbish that may be in the garden and ensure that any gaps under buildings and sheds are blocked to prevent rabbits

from gaining access. The low pruning of shrubs and hedges and the removal of other vegetation that offer rabbits protection from the weather and predators will make your garden less suitable to rabbits.

Maximising lawn areas will also make your garden less desirable to rabbits. The presence of a good hunting cat in your garden will keep your rabbit numbers to a minimum, but will also have a detrimental impact on any nesting birds in the garden area.

TRAPPING

Using traps and snares can be effective in reducing rabbit numbers in urban gardens. However this method can be time consuming. It also requires knowledge of correct trap or snare placement to prevent non-target captures and to be successful.

Trapping is not recommended unless you already have some experience in rabbit-trapping techniques. Before considering trapping as a control option, check with your local district council to ensure that the use of traps or snares is allowed under local bylaws.



NIGHTSHOOTING AND RIFLING

Nightshooting and rifling (stalking at dawn or evening) are probably the most common forms of rabbit control carried out in New Zealand. Nightshooting in particular, is an effective method of controlling light rabbit infestations. Nightshooting (spotlighting) involves searching for animal pests at night using a spotlight to locate pests while they are feeding, or are away from cover.

To be effective, a systematic approach is required by an experienced operator. Shooting to control medium or high rabbit numbers has limited effect on the population level and surviving rabbits become more wary. Poisoning is a appropriate and more cost-effective method for controlling medium to high levels of rabbits.

Best results from shooting operations are obtained on properties that have good access and little cover. A competent operator can shoot approximately 30 percent of the resident rabbit population in a single nightshoot. To achieve a significant reduction in infestation levels, three to four nightshoots need to be carried out.

Suitable firearm

To use a firearm, the operator must hold a current firearm licence or be working under the immediate supervision (within sight and hearing) of a licence holder. The operator must be fully conversant with the 'Arms Code' firearms safety manual issued by the New Zealand Police.

A .22 rimfire rifle fitted with a good quality telescopic sight is recommended for all night shooting. The use of sound moderators and sub-sonic hollow point ammunition is also recommended. Self-loading rifles are commonly used by professional operators, although all magazine fed actions are suitable. Rabbits are often encountered in small groups therefore single-shot rifles are not recommended for nightshooting.

While shotguns are effective for shooting rabbits flushed from cover, or in situations where safe range is limited, they are not generally recommended for nightshooting because their noise level will drive nearby rabbits into cover. Where shotguns are used, a 12 gauge bore is recommended using cartridges loaded with No 4 lead shot.

All firearms must be well maintained and the shooter must be totally familiar with their operation. Rifles should be 'sighted-in' periodically under range conditions to ensure their accuracy is maintained.



Left: Suitable firearms – Ruger 10/22 (self-loading), Ruger 77/22 (bolt-action), Winchester (lever action), Franchi 12G (self-loading). Right: Headband spotlight with battery pack

Suitable spotlights for nightshooting

There is a wide selection of spotlights available and new technology is being released on a regular basis. Historically, the recommended system used by most pest control operators is a helmet or headband mounted 12 volt 35 watt spotlight. A 35 watt light gives adequate illumination to cover the normal shooting range of a .22 rifle (i.e. 80 m). A 12 volt sealed lead acid maintenance free rechargeable battery, carried in a specifically designed backpack or hipbelt, is used as a power source.

High power LED torches, spotlights and headlamps are now available that provide adequate light over a greater distance and field. The advantage of these lights is they are compact, light, and easy to use and maintain. Headlamps can be difficult to use effectively with a scope therefore

are not the best option unless tested adequately to determine the best set-up. Powerful LED torches are easy to use and effective as an alternative to heavier battery powered spotlights particularly if rifle mounted. Though available, rifle-mounted lights alone are not recommended. This configuration requires the rifle to be pointed with the spotlight, which can be tiring and unsafe. A combination of LED headlamp and rifle mounted LED torch can be a very effective setup.

Techniques for nightshooting

Prior to carrying out a nightshooting operation, it is essential that the area to be nightshot be thoroughly inspected during the day. Look for rabbit feeding areas, normally indicated by shortly cropped grass with rabbit scratchings and droppings.

Also take note of potential areas of cover which the resident pest

population may be using. 'Runs' from cover to feeding areas may be evident. Predetermine your nightshoot route so you approach these areas between the rabbits and their cover. Take note of potential hazards and landmarks that will help you navigate at night.

A .22 rifle bullet can travel up to 3 km. It is essential you carefully consider your safe firing zones during the day, as your vision at night will be limited to the range of the spotlight!

It is important to consider farmed stock as they may hinder a shooting operation. Try to avoid heavily stocked paddocks, as these animals will probably frighten rabbits by moving ahead of you. Cattle can cause problems by following you. Paddocks containing horses and deer should not be entered unless absolutely necessary. These animals are easily frightened by spotlights and may injure themselves running into fences or other obstacles.

Planning a nightshoot

There are several factors to consider before nightshooting.

1. Weather: Heavy rain, frosts and strong winds affect animal pest emergence from cover and limit the effectiveness of the shoot. However, light rain tends to make rabbits 'sit' and become easy targets. Ideal conditions for nightshooting are warm, dry weather with little wind.

2. Rabbit behavior: Rabbits will feed voraciously early in the evening and then intermittently through the rest of the night. Dominant rabbits will usually feed first with younger rabbits occupying the feeding areas later. This means it is often worthwhile rechecking an area where rabbits were shot earlier in the evening.
3. Moon phase: Full moon phases are not generally good times for nightshooting. The bright conditions allow rabbits to detect the operator and this tends to make them 'flighty' and difficult to shoot.
4. Previous nightshooting: Ineffective nightshooting in the past may have produced rabbits that are "shy" of both lights and guns. The only way of overcoming this problem is to prevent any shooting on the block for several months to allow the rabbit population to settle down.
5. Predators: If rabbit feeding areas are checked with a spotlight and no rabbits are seen, predators may have scared them. Recheck these areas on another occasion.

6. Ensure you carry a torch, first aid kit and, if you are using a motorbike, a tool kit. Always inform someone of your intentions!

Spotlight techniques

The spotlight is used to identify target animals. Rabbits and other animal pests should be identified by both eye reflection and body shapes; do not shoot at silhouettes or reflections. If you notice an animal but do not see an eye reflection, ensure that you positively identify it as a target animal before shooting.

The following describes the eye reflection colour of various animal pests and other animals commonly encountered on farms:

PEST	EYE REFLECTION
Rabbits	pinky-red
Hares	similar to rabbits, but larger
Possums	red
Wallabies	greenish-yellow
Cats	brilliant green
Ferrets	brilliant green
Sheep	yellow-green
Cattle	pale green, large
Deer	bright silvery green, large
Pigs	red, small and often not seen

Successful nightshooting is reliant on good spotlight technique, so consider the following:

- If you are not using a headband or helmet-mounted light, ensure you

search with the light held directly below your eyes. This allows for animal eye reflections to be readily seen.

- Do not shine the light outside of effective gun range. This will result in rabbits being alerted to your presence before you are in a position to shoot them.
- Use steady side to side sweeps of the light while searching for animals. Jerky or erratic flashes of the light may frighten animals ahead of you. Sweep all the area twice.
- Always search from cover edges first and work towards feeding areas. Rabbits will often hesitate if you are between them and their cover making them easier targets.



Typical rabbit feeding area - shortly cropped grass with associated rabbit droppings.

- If a single rabbit is sighted, always presume that another is nearby. Once the rabbit has been shot, intensively search the surrounding area for its mate.
- Once a rabbit has been found, hold it on the edge of the light till you are ready to shoot. Rabbits (and most other animals) will sit quietly if the light is not shone directly at them.
- If two or more rabbits are sighted at the same time, shoot any moving rabbit first. If they are sitting, shoot any that are lying down with their ears held down first.
- If a rabbit runs, it will often stop at a fence or on cover edges and allow an easier shot.
- Running rabbits can sometimes be stopped by whistling at them.

Shooting techniques

Rabbits missed on a nightshoot will likely learn from the experience and become light and/or gun shy. Successful shooting requires practice, not just at stationary targets but also moving ones. Remember judging distances at night can be difficult so practice at night on targets at predetermined ranges.

Never attempt a shot at an animal pest unless you are confident of killing it and you are sure it is safe, be aware of the environment behind the target.

Consider the following points:

- Aim for the centre of the chest or shoulder for a clean kill. Head shots are easily missed.
- If a rest is available, use it. If no rest is available consider shooting from a sitting or kneeling position. Always try to make each shot as easy as possible.

Use of vehicles and motorbikes for nightshooting

It is illegal to carry loaded firearms (this includes a rifle with a loaded magazine) in a vehicle either on public roads or on private land!

To carry a loaded firearm in a vehicle or on a motorbike on private land, you must first obtain permission from a commissioned police officer. This permission can be applied for at your local police station and may be granted for a series of hunts, it may also have conditions attached to the permission such as calibre restrictions. It is illegal to shoot on or from public roads.

Vehicles

Vehicle nightshooting usually involves two people, one driving and one shooting. Both can use spotlights. As vehicle access over farmland is generally limited, it is essential that a battery pack or portable spotlight be carried on the vehicle, so that rabbit areas out of vehicle range can be hunted.

Coordination between the driver and shooter is needed in order to be successful and is usually achieved by a series of prearranged signals. The vehicle should also be fitted with a suitable support frame for the shooter and secure gun racks if possible. Needless to say, the driver needs to be a very competent cross-country driver and have a good knowledge of the property.

Motorbikes

Motorbikes, and more recently 4-wheel ATVs, revolutionised nightshooting in the 1970s and 1980s. They are maneuverable, quiet, economical and usually cover an area thoroughly and quickly. The rider should be experienced at cross-country riding and have a good knowledge of the property. Firearms are best transported in scabbards fitted to the front forks of the bike. Four-wheelers can be fitted with secure gun racks.



Helmet mounted spotlight. Operator demonstrating technique for shooting from a motorcycle

Night riding while searching for animals with a spotlight requires practice to become proficient. Until you have developed the necessary skills, exercise extreme caution, ride slowly and stay constantly alert for hazards. Do not be tempted to chase running animals! If you have an accident or drop the bike while nightshooting and you are uninjured, immediately unload and check your firearms for damage. If you have any doubts concerning the safe condition of the weapon, abort the shoot, and have the firearm checked by a gunsmith.



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