Control of Hares

Introduction

The European brown hare was introduced into New Zealand in 1851 and has now spread through most of the country. They are present throughout the Bay of Plenty with the highest numbers found in the eastern and central areas.

Hares live in grassland or open country, cropland, pasture, coastal sand dunes, swamps and open areas in forest or bush.

Hares are sometimes mistaken for rabbits, though they have several distinguishing features. The European hare is mainly yellowish-brown in colour, with the top of the head being a mottled black and fawn. The belly is white and the tail is white underneath and black on top. The ears have light edges and black tips. Hares run with their tail held down. It has relatively long legs and weighs 3–4 kg, about the size of a domestic cat.

Rabbits are usually grey/brown in colour. They do not have black tipped ears and run with their tails up. Averaging 1.5 kg in weight, rabbits are less than half the size of hares.

Hares do not dig burrows or scratch like rabbits do. While hare droppings are similar to rabbits, they are normally slightly larger and flattened. They are usually lighter in colour and have a higher fibre content than rabbit droppings. This is a reflection of the difference in diet between the rabbit and hare.

Damage

Hares can be a problem in horticultural and forestry blocks. They can also cause damage to vegetables, flowering trees and shrubs.

Newly planted shelterbelt trees and seedlings can be bitten off at a 45° angle. The bitten piece can also be chewed even further and be scattered at the base of the tree. Other plantings such as poplars or willows can have bark stripped and any small branches or new growth nipped off.

Citrus trees can have low branches nipped off and bark bitten off the trunk. Young cuttings or new growth is nipped off and often not eaten. In most instances all the bark is removed.

In the case of pip and stone fruit, large areas of bark are often bitten from trees less than one year old. Low branches and in some instances small trees can be bitten off at a 45° angle.

With berry fruits, any new growth on canes or young vines are often nipped off in 10–12 cm pieces and left at the base of the vine. Flowering trees and shrubs such as camellias and rhododendrons also have their branches nipped off and left at the base of the shrub.

Hares can cause extensive damage to forestry plantings.

Hares will also attack vegetable crops. Asparagus spears get bitten off and left at the plant base. Cabbages, cauliflower, lettuces and other market garden crops are commonly grazed, along with corn, wheat and maize. An individual hare can cause major damage in a single night.

Control methods

Any hare control work should be carried out well before any planting is done. As hares are reluctant to accept baits, poisoning is not an effective method of control. Shooting is the most effective control method but must be carried out at regular intervals to ensure numbers are kept low. Shooting techniques described in ***Sustainable Options PA04*** **Effective Nightshooting to Control Rabbits** also apply to shooting hares.

Plants can be protected from hare damage by using specifically designed fences, while the use of repellents will minimise hare damage.

Exclusion fencing

When establishing a small horticultural block or nursery within an area containing a relatively high infestation of hares, the most cost effective way of preventing hare damage will be exclusion fencing.

Hare damage to small horticultural blocks and nurseries can be prevented by excluding hares. Specifically designed netting and electric fences are suitable.

Netting fences using mesh 8–10 cm in diameter are effective. Fences need to be at least 1 m high and must be tightly stretched and

pegged to the ground to ensure there are no gaps. All drains and depressions must be netted as well. Gates into the block must also be netted and close fitting, preferably with a concrete or timber sill. Gates must be kept shut at all times.

Electric fencing is an effective method of excluding hares. If possible a mains powered energiser should be used. If using a battery unit ensure that it is checked regularly and that the batteries are kept fully charged. Fence lines need to be checked regularly, especially during spring and autumn, to ensure that vegetation is not shorting the lower wires.

The lower four wires on the fence should be about 10 cm apart and should be alternating live and earthed wires. Wires can be fitted to electric fence battens or to posts and insulators. If hare numbers are high, it is advisable to fit an additional live wire about 10 cm above the ground and 10–15 cm out from the base of the fence.

Electric rabbit netting is ideal for providing temporary protection and can be easily moved when plants are well established or no longer need protection.

Use of repellents

Repellent preparations are designed to render plants unpalatable and unattractive to browsing hares or 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 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:

'*Thiroprotect*' – 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 last 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.

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

Environment Bay of Plenty assistance

Environment Bay of Plenty pest animal officers are available to offer advice on hare control and will assist in identifying hare damage if required. Suitable spotlights, batteries and battery chargers can be purchased from Environment Bay of Plenty offices.

Environment Bay of Plenty
REGIONAL COUNCIL

For further information and advice, contact your local pest animal officer at Environment Bay of Plenty:

Telephone: 0800 ENV BOP (368 267)
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