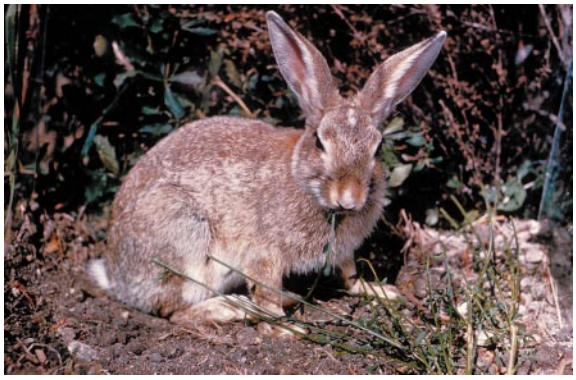
ANIMAL PEST CONTROL

ANIMAL PEST
Hares: *Lepus copenus europaeus*

Introduction
The European brown hare was introduced into New Zealand from Britain in 1851. Hares inhabit grassland or open country, also cropland, pasture, coastal sand dunes, swamps and open areas in forest or bush.

Hares have spread throughout most grassland areas, competing with stock for food and damaging crops, orchards and plantations. Even low numbers of hares can cause severe damage to shelter belts, young trees, cuttings, vegetables or plant nurseries. A pair of hares can destroy up to 100 trees in a night.



Hares run with their tail held down

Hare damage to a pine seedling. Note the 45o angle cut

Description
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 weighing 3-4kg is about the size of a domestic cat.

Breeding starts in late June, with a 42 day gestation, and an average of two or three young or leverets in each litter. Females can have four or five litters a year.

Unlike rabbits, hares do not dig burrows or scratch. While hare droppings are similar to rabbits they are normally slightly larger, flattened, lighter and have more fibre. Hare droppings are distributed at random, rather than in heaps like rabbits. Pellets are most likely to be found in feeding areas.

Hares are nocturnal, feeding in the afternoon and at night and lying up in the daytime in long grass or shelterbelts. They can travel up to four kilometres to feed on a wide variety of shrubs, herbaceous plants and field crops.

Damage
Hares can also be identified by the damage they cause. Newly planted shelterbelt trees and seedlings can be bitten off at a 45o angle. The piece bitten off is often further bitten into 10cm lengths, while the side growth on the tree is usually left intact. Other plantings such as poplars or willows can have bark stripped and any small branches or new growth nipped off.

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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.

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.

What is the best way to control hares?
Any hare control work should be carried out well before any planting is undertaken. Once an area has been developed and planted, it is virtually impossible to control the area.

As hares are reluctant to accept baits and browse a large area when feeding, poisoning is not an effective method of control. Nightshooting is the most effective control method but must be undertaken at regular intervals to ensure numbers are kept low.

Planting older trees in preference to younger smaller trees may minimise the chance of damage.

Fresh soil such as a plough furrow will attract many pests, particularly hares and rabbits. Using a post digger to dig planting holes rather than digging a furrow may reduce 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.

Netting Fences
Mesh 8-10cm in diameter is effective. Fences need to be at least 1m 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. Dynex plastic seedlings and pole protectors are an option and are available from the Regional Council at cost.

Electric Fencing
Hot-wires along trees or low along fences is an effective method of excluding hares. The later in winter a tree is planted the less chance hares will attack them as for the most part hares only attack trees from May to August. 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 also 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 10cm 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 10cm above the ground and 10-15cm 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 require protection.

Use of Repellents
Repellent preparations are designed to render plants unpalatable and unattractive to browsing hares or rabbits. See the Environment topic on Use of Repellents for Animal Pest Control for further information on the use of repellents.

Acknowledgments
Photos and information supplied by Taranaki Regional Council and Environment Bay of Plenty.

For further information
For further information on animal pests or the Regional Pest Management Strategy, please contact the Biosecurity Animal Pest Officers at the Hawke's Bay Regional Council.

Wairoa	06 838 8527
Napier	06 835 9200
Waipukurau	06 858 8636
TOLL FREE	0800 108 838
www.hbrc.govt.nz	