

RABBITS AND THEIR CONTROL

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All farmers are aware of the damage done by rabbits on New Zealand farms and sheep runs. These pests make their presence felt most seriously in sheltered waste areas such as river-beds and on the warmer winter blocks in the high country where conditions of temperature and feed supply are suitable for their rapid reproduction.

Not only are they destructive feeders but they materially assist in accelerating erosion in hill country and their presence, where burning of tussock is practised, makes them a real menace.

Extermination of rabbits is the aim of every farmer but under conditions existing today his main efforts are directed towards some form of control. This is particularly true of the back country where there is abundant natural cover for rabbits and where labour, adequate for their destruction, is not available, and where rabbit fencing is impossible.

Nature plays an important part in control where snow lies on the ground in a frozen condition and covers the food supply sometimes for weeks in winter. Heavy rains during the breeding season may fill the burrows with water and drown litters of rabbits too young to escape. Combined with these influences which are effective only on rare occasions there is the constant work of natural enemies of the rabbits such as stoats, ferrets, cats and hawks.

It is the purpose of this bulletin to outline some of the methods that may be used in the control of rabbits.

Fencing

Where rabbits are to be controlled or exterminated it is desirable that the boundary fences should be rabbit proof so that reinfestation from

neighbouring areas is prevented. In attempting to clean up a large area it is necessary to tackle one block at a time.

Encouragement of the Natural Enemies

Stoats, ferrets, wild cats and hawks concentrate on rabbit infested areas, and destroy large numbers of rabbits in maintaining themselves and rearing their young. A mature stoat will destroy on the average one rabbit a day while a cat rearing a litter of five kittens has been known to destroy up to four young rabbits a day. It is, therefore, to the benefit of the farmer to encourage the activities of these predators. Unfortunately, there is a high market price existing for skins of cats and ferrets and the professional rabbitier takes every advantage of these high prices. His main idea is to make money and to ensure that there will be rabbits for him to catch the following year. To reduce the destruction of these natural enemies it would seem a step in the right direction if the sale of ferret and cat skins were prohibited.

Trapping

This method is popular because it enables the rabbitier to sell the carcass as well as the skin. The successful trapper must have a sound knowledge of the habits of the rabbit and this knowledge is only acquired by actual experience in the field. In some seasons the rabbits are more easily trapped at burrows while on other occasions better results are obtained by setting the traps at places where they set or scrape, or at tracks in grass and holes in netting fences. A man is fully employed to set 120 traps a day on hill country or 160 on flat country — allowing for the time

spent in taking his catch to a depot for collection. As a general rule a trapper can catch more rabbits over a year than a poisoner can obtain by poisoning alone, but when the ground becomes frozen, trapping in the high country becomes difficult or impossible.

Poisoning

During the winter months poisoning is the best method of destroying rabbits. Good results can only be obtained with poison if the normal food is in short supply, because then, and only then, can the rabbits be tempted to take bait; hence the practice of poisoning in June, July and August, and in some cases during a very dry autumn.

The area to be poisoned should not be disturbed prior to baiting and all sheep should be removed from the area; operations should commence not earlier than the month of May. The lines along which the bait is to be spread are sometimes ploughed with a hillside plough, but if the rabbits are really hungry this preparation is of doubtful value—merely spreading the bait along a line being sufficient. The distance between the lines should be about 100 yards.

The baits commonly used are turnips, carrots, and oats and are usually prepared as follows:—

Turnips should be cut with a hand operated turnip cutter into pieces ranging from 2in. to 3in long, one third inch wide and about a quarter-inch thick.

Carrots: These should be sliced with a knife as the rabbit rides along—pieces about the same size as for turnips.

Oats should be fed in the dry state or after soaking in water for 24 hours. In certain districts it may be advisable to sweeten the oats and water mixture with 2lbs. of molasses or treacle added to each 15lbs. or kerosene tin of the mixture and boil until soft.

The first bait should be spread at the rate of a small handful every three yards and should not be thrown on dung heaps or on wet shady areas. A good load for a horse carrying a rider is about 8 kerosene-tins-full of turnip or carrot and for the same area two tins of oats will be required.

The rabbit must not be discouraged if all the bait is not eaten the first night as it sometimes happens that the rabbits will wait for

periods of up to a fortnight before taking the bait; it is essential to wait until all this first bait is eaten before continuing with the second, and the second must be eaten before the third is put out. If the bait is eaten one night and left the next the rabbit must exercise patience, and wait until the rabbits become sufficiently used to the bait to eat all of it each night for three nights in succession and then he will be able to poison. These considerations apply equally in the feeding of turnip, carrot and oats and neglect to observe them will give disappointing results. Once a failure in taking the poisoned bait has been sustained on a particular area there is little chance of success at a later date that season.

Poisoning of the Bait

Strychnine powder is commonly used and is most effective. It is used at the rate of 1oz. per kerosene tin full of prepared turnip, carrot, or oats. The bait is spread on a sheet and the strychnine powder sprinkled over it, then the whole mass is stirred up and again sprinkled with powder. This process is repeated until all the powder is used and evenly distributed over the bait. When turnips are used for this purpose the skins must be removed before cutting so that any poisoned bait not eaten by the rabbits will decompose quickly and not remain to be a danger to sheep when they return to the area. Dry oats should be wetted by immersion in water for a few minutes before treating.

Amount of Poisoned Bait to Use

One kerosene tin-full of the poisoned bait will be sufficient for an area on which the rabbits were eating an amount equal to 8 kerosene tins full of unpoisoned bait. Where rabbits are very numerous a good kill per ounce of strychnine used should be about 300 and variations from this figure are usually due to under-feeding of the rabbits when baiting, feeding fresh bait before all of the previous bait has been eaten, or poisoning before all of the unpoisoned bait has been consumed.

It is worth while noting that poisoning on snow is not possible as the rabbits will not attempt to eat bait which is thrown out on snow even if they are starving.

Precautions

Saddle pack bags used for carry-

ing bait must be clean. Bags used for collecting dead rabbits must not be used for carrying bait. Separate bags must be used for carrying the poisoned bait and should be destroyed at the end of the season. During the whole period of baiting and poisoning, and for a week afterwards, sheep should be kept off the area. All poisoned rabbits should be "gutted" and the viscera buried because the liver and stomach are poisonous to dogs although the carcass is not. The poison should not be put out until nearly sundown because, if rabbits are poisoned before nightfall, the skins are often ruined by hawks. The rabbitier must exercise great care when handling strychnine or the poisoned bait and must wash his hands thoroughly when the work is completed. Tins of strychnine should be clearly labelled as to contents.

Fumigating

This method is practised on farms where it is possible to fumigate all the burrows with a poisonous gas. Proprietary materials are obtainable with a full list of instructions for their use and the most effective are those producing cyanide gas or sulphur dioxide gas. The rabbits are driven into their burrows by dogs wherever possible, then the material which gives rise to the gas is placed in the burrow, the entrances to which are carefully blocked with soil. The success of this method depends largely on the complete sealing of the burrows and the best time for the use of gas is after rain when the wet soil prevents an escape of gas by diffusion into the soil air spaces.

Having obtained the rabbits by the methods outlined as well as by ferreting, shooting, etc., the rabbitier must then skin them and prepare the skins for market.

Skinning

It is in the interests of the rabbitier to remove as much of the skin as possible. He must skin the hind legs right out to the pads of the feet and remove the skin as far up the neck and close to the head as possible. An experienced man should be able to skin 120 rabbits in an hour.

The next operation is the removal of fat from the skin for if this is not done there will be a reduction in price. Fatty skins become dam-

aged due to the melting of the fat when passing through tropical areas on their way to overseas buyers. After the fat has been removed the skins are stretched on wires which have the shape of a hairpin, the arms of which are about a foot in length. The skin is pulled over the wire so that the neck-edge fits tightly over the apex of the bend. One leg of the skin is then pulled and threaded onto one wire end and the overlapping piece wound around the wire. The other leg is pulled down and threaded onto the same wire end. The tail, still on the skin, will be against the other end of the wire. If the skin is stretched in this way it will not slip up the wire and will dry so that a maximum of skin area is exposed. After threading one skin on the wire another skin is placed over the apex and another wire threaded through the loop of the apex and the second skin stretched on the second wire as with the first skin. This enables the skins to be suspended in pairs along a fence for drying. When dry, the skins are removed from the wires, packed into bundles of 100 and sent to auction.

With the subsidy applied during the breeding season rabbit skins are worth at the present time, about £4 per hundred and in the winter they reach as much as £9 per hundred after the 20 per cent Government levy and Social and National Security tax have been deducted. In the autumn of this year rabbits sold to freezing companies returned 3/6 a pair to the trapper and a man, by hard work and long hours, setting 120 traps a day was able to earn about £7 per day.

It has been suggested that with existing prices rabbit farming instead of rabbit extermination should be the farmer's aim. Certainly, in the rabbit infested back country sheep runs where there are serious snow losses in the sheep flocks, rabbit farming would be attractive if the high demand and high prices for carcasses and skins remained steady over a period of years. There would be no capital required for stock, the cost of production of skins and carcasses would be low and that constant fear of ruin by a bad snowfall would no longer exist. However, the main objective should be extermination of rabbits in New Zealand and to that end attempts to farm rabbits must be discouraged. Isolation of the suggested rabbit farms

would be impossible in the back country and rabbits from these areas would be a constant menace to farms where extermination is being attempted.

Summary

To ensure security from reinfestation of the farm by rabbits from neighbouring farms it is essential that the boundary fences should be rabbit proof.

The natural enemies of the rabbit—stoats, ferrets, cats and hawks should be encouraged in their work of rabbit destruction.

Trapping is the most effective method of destruction during the late spring, summer and autumn where rabbits are very numerous.

Poisoning should be attempted

only when ordinary rabbit feed is in short supply if best results are to be obtained—during the winter period, June, July and August, or during autumn under very dry conditions.

When rabbits have been reduced in number the area should be cleaned up by fumigating burrows, ferreting and dogging.

Careful attention to preparation of skins for market is necessary if highest prices are to be obtained.

Having commenced his rabbit extermination campaign the farmer should aim at continuous effort over the whole year or years. If he relaxes, the rabbits will increase in numbers during the resulting period of freedom and his efforts will result in some degree of control, not in extermination.

Copies of this Bulletin may be obtained from the Secretary, Canterbury Chamber of Commerce, P.O. Box 187, Christchurch.