1886. NEW ZEALAND.

RABBIT NUISANCE THR

(ANNUAL REPORT ON), BY THE SUPERINTENDING INSPECTOR.

Presented to both Houses of the General Assembly by Command of His Excellency.

Mr. B. P. BAYLY to the Hon. the COLONIAL SECRETARY.

Colonial Secretary's Office (Stock Branch), Wellington, 29th May, 1886. Sir,-In furnishing my annual report on the steps taken for the extermination of rabbits, and the results obtained, I regret to be compelled to state that matters have not progressed as

satisfactorily towards the destruction of the pest, nor is the outlook as favourable, as has been

the case in previous years.

An unprecedentedly hot and dry summer, during which there was no rainfall sufficient to destroy the "stops" or to a certain extent check the increase, has been attended with very unsatisfactory results—in fact, during the last three months the increase has been far in excess of anything experienced during previous seasons.

No doubt the winter poisoning will again reduce the numbers, but the question asises, Where

is this annual tax to end?

I am still of the opinion I held three years ago, that no scheme has yet been propounded that effectually deals with the question; and I adhere to the suggestion I made in 1883, that a reward should be offered sufficiently large to induce scientists to give the matter their attention. In these days of enlightenment and research it is more than probable that a disease peculiar to the rabbit, or some other means, might be discovered which would furnish a wholesale yet inexpensive method of destruction. Some time ago I observed that the South Australian Government had sent to Germany for the purpose of introducing rabbits infested with a species of scabies peculiar to them, and which is said to destroy great numbers of them, and, from its debilitating effect, reduces their breeding power enormously. It is something in this direction that should be sought after. Even if a poison were discovered that could be freely used in summer a great stride towards keeping the pest in check would be attained; nor do I see why the difficulties here should be insurmountable.

Let an experimental branch be established, for one year, under the charge of a thoroughlyqualified chemist, and assisted by men practically acquainted with the rabbit. It is quite evident that to obtain permanent relief a different procedure is required from what is at present available. Why should not this be attempted? Surely the chance of something beneficial being

obtained should be possible.

That the natural enemy is helping considerably in checking the increase of the rabbits, and in some places keeping them completely within bounds, is undoubted. Their adoption as one means of destruction is rapidly gaining ground, and is favourably reported upon; but they require to be turned out in large numbers and the ground worked systematically before they become effective: even then the transition stage must necessarily take a long time prior to a balance

being attained.

Ferrets have this year again been turned out in considerable numbers, and are becoming widely spread throughout the whole rabbit areas. In Marlborough alone some thousands are used. The great drawback to success is the want of method in dealing with the rabbity ground. Except in the poisoning season, no established rule seems to be adopted. Some persons turn out a few ferrets, whose number are totally inadequate to cope with the number of rabbits on the area to be dealt with, and because the rabbits do not decrease ferrets are condemned.

Dogs, fumigating, and other means are resorted to as well, which at once insures the

destruction of the natural enemy.

The supply of ferrets should be kept up annually, nor should any be turned out until the pest has in the first instance been greatly reduced in numbers. Even as far south as the Waiau, in Southland, they are doing well, and as many as were procurable have been placed on waste lands in that locality. All young and healthy ones which were offered for sale to the department have been purchased and utilized in a similar manner in other localities.

It may be interesting to record the results obtained from the first shipment of weasels which arrived here in 1884.

They were turned out on a peninsula containing about eight thousand acres at the Wanaka Lake. Shortly after their release a diminution of the rabbits in the neighbourhood was apparent. Last year only a portion of this peninsula was poisoned, and this year the rabbits are reported to be still fewer. It is proposed not to poison at all on this block this winter, and watch Where the weasels were originally placed scarcely a rabbit is to be seen until the extreme end of the ground is reached, or the furthest point from where they were released. In this case, should the result be satisfactory, it means that an area of badly-infested country eight thousand acres in extent has been permanently cleared at an expenditure of about £500.

In other localities where these animals have been liberated the same conditions do not exist. They were neither turned out in a large number at one spot, nor were they, as on the peninsula, confined to certain limits; consequently the results have not been so manifest: but, at

the same time, rabbits killed by them have been found repeatedly.

During the year one shipment of 82 stoats and 126 weasels were landed to the order of the Government, and distributed as follows: Part on Wilkin River, at the head of Lake Wanaka; part on the east side of Makarora River; another lot on the Naumann Range, head of Lake Ohau; remainder on the Waitaki River-in equal portions at each place. Two other shipments, consigned to private individuals, were introduced during the last twelve months, numbering, respectively, 116 weasels and 32 stoats, and 167 weasels and 55 stoats. The former were distributed partly in Marlborough and West Wairarapa, and the latter in West Wairarapa, on Messrs. Riddiford's station. I hear that rabbits destroyed by these animals have been repeatedly found, but sufficient time has not yet elapsed since their liberation to speak definitely as to the result.

This year I again visited the head of the Wanaka, and Haast Saddle, and there is no doubt that the rabbits have increased since last year, especially towards the saddle; but on both runs near it—lower down the lake—they have been reduced considerably. Considering the large extent of high, rough, and unstocked lands which exist here, I fully anticipated to have found the pest even worse than it was. All the low-lying lands can be effectually dealt with during the winter by poison, but there will still remain vast wastes where nothing but the natural enemy can be of any service.

Having heard that rabbits were making their appearance on the Dobson River, at the head of Lake Ohau, I proceeded there. The eastern side of the lake and the Dobson River may be considered as almost free; but the pest is undoubtedly established on the western side of the river to its junction with the Hopkins River; and on the north side of Hopkins River they are very few, from that towards the Gorge. I do not think they could ever get back in any number towards Mount Cook, as the country is principally birch bush, and beyond that glaciers and rapid rivers. Under these circumstances they can never swarm the country at once, as has happened elsewhere. Between Ben Ohau and the junction of the Hopkins with the Dobson River floods at any time may spread them on to the adjacent country east of the Dobson. This I consider the key to the whole of the McKenzie Country, and consequently of South Canterbury. This point requires closer supervision than any other part of the southern districts. rabbits on the Hopkins River must have come in from the head of the Hawea Lake and Hunter River. Here, unfortunately, a large block surrounded by high, rough, unoccupied country has been thrown up, and has become overrun with the pest. The department will poison it this winter by contract.

In the Amuri District, between Canterbury and Marlborough, on the Guide and Acheron Rivers, an increase of the pest threatening serious consequences to a large area of pastoral country has occurred.

This influx has been of the most sudden nature, and, the area infested being comparatively great within a very short period, leads me to the conclusion that it has been in a great measure attributable to the numbers of ferrets that have been liberated on the Clarence River and in that direction during the past two years. The rabbits found here are reported to be principally silver greys. This unmistakably proves that the majority of them are from the Kaikoura direction.

Some two months ago a small colony of rabbits were known to be on the Amuri side of the Clarence River. Steps were taken at once, and they were supposed to be checked. The country adjoining has been twice visited this year, and nothing reported to arouse suspicion. This is undoubtedly a case of great import, and one that requires specially to be dealt with. From the formation of this country steps to check the pest not available in other localities are possible here. Rubbit-proof fencing has been found to afford a certain amount of protection where an influx of this description impends, and a line of considerable length could be erected here on the margin of the threatened country, and which could extend outside the line of their advance. If not a complete bar, it would at least hinder the pest from making a rapid advance, and thus facilitate their destruction at the boundary.

With this fencing, aided by the breeding and liberation of the ferret in as large numbers as possible, I am strongly of opinion that here decided and prompt action may be attended with

a reasonable hope of success, and the further encroachment of the pest at least stayed.

Having referred to rabbit-proof fencing as an adjunct to keeping the pest within bounds, I may mention that many persons hold the opinion that this description of fence should be

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legalized, and the Fencing Act amended in that direction. If such were done numbers of persons who are precluded from using this means of protection through not being able to recover from the owners adjoining them would at once adopt it, and thus be able to protect their ground from being re-infested from other holdings, and with the certainty of being able to keep down the rabbit on their own properties.

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No fresh methods have been reported as having been used during the year. One is now being brought under the notice of the department by a resident in Otago, who claims to have discovered the means of poisoning the rabbit with phosphorized grain as effectually during the

summer as in the winter months; even if so, this cannot be tested for some months.

There is no doubt that phosphorized grain in winter, together with the natural enemy, are the most efficacious means yet attempted, and, failing any further importation of weasels and stoats for the inaccessible country, I would strongly recommend that two ferret-breeding dépôts be established, one to be situated at the head of Lake Wanaka, so as to supply the Haast country and between that and Hawea; and the other one on Lake Ohau station, to supply the country on the west side of Dobson River; and, further, that the Government continue to offer such a price for breeding them as will induce persons to go largely into it, the whole number so procurable to be released throughout the Crown lands of the colony, and specially on the rough and unoccupied areas.

Although last year has been a disastrous one, yet I do not think that the rabbits have actually increased in numbers. I know positively myself that in some places they are less numerous than they were previously, but undoubtedly the general effect of the past season's work is less apparent,

and this winter's poisoning will again reduce them within certain limits.

That no actual increase occurred is proved by the sheep returns, which in the infested districts show a considerable increase again this year: this could not be the case had the rabbits become as numerous as formerly. The great difficulties we have to deal with are the vast areas of waste lands, commonages, reserves, and several other descriptions of lands which are thrown upon the department, and which could be let for grazing purposes, and the Government relieved of this burden. Some uniform system should be initiated throughout the colony, so that waste lands, &c., should be dealt with similarly to private lands, and thus give relief to those persons whose properties adjoin these areas.

Statistical information will be appended when returns come to hand.

I have, &c.,

BENJN. P. BAYLY,

Superintending Inspector.

The Hon. the Colonial Secretary, Wellington.

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