#### 1890. NEW ZEALAND.

# THE RABBIT NUISANCE

(ANNUAL REPORTS ON).

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

REPORTS forwarded by Inspectors and Sub-Inspectors to the Hon, the Minister of Lands (Stock Department) in reply to the following circular:

(1.) What means have been adopted for destroying rabbits?

(2.) Have you any recommendations to make?

(3.) What progress has there been made?

(4.) How many tenders have been accepted?(5.) What did the whole of them amount to?

(6.) Number and description of reserves you will require to deal with, and the approximate area of such available for grazing purposes?

(7.) What quantity of phosphorus was used for Government purposes?

(8.) What quantity was sold to private individuals?

(9.) What was the quantity on hand on the 31st March, 1890? (10.) Number of prosecutions?

(11.) Number of convictions?

(12.) Number of dismissals?(13.) Names of owners of properties dealt with under section 11?

(14.) Number of ferret-breeders?

- (15.) Have any ferrets been turned out by Government; if so, how many, and with what results?
- (16.) Have any ferrets been turned out by private owners; if so, about how many, and with what results?

General Remarks:

### AUCKLAND DISTRICT.

Sheep Inspector's Office, Auckland, 3rd April, 1890. Sir.—

I have the honour to forward herewith the annual rabbit report of the Auckland District for the year ended the 31st March, 1890, together with replies from myself and Sub-Inspectors to the queries referred to in circular.

It is a most difficult question to decide how best to deal with this nuisance here, for on Native lands poisoning cannot be undertaken, and public opinion is adverse to the liberation of the natural enemy; so that, until the Native lands become occupied or the property of individuals and natural enemy; so that, until the Native lands become occupied or the property of individuals and not the common property of a tribe, and public opinion reconciled to the presence of the natural enemy, the means adopted as the most useful in the rest of the colony are actually prohibited here, so far as the greater area of rabbit-infested country—the King-country—is concerned. These rabbits appear inclined to spread to the east of the Waikato, between Cambridge and Oatu. At present very few can be seen. The owners here will be induced to take the most effective means of destroying rabbits during the coming winter. I propose to watch the work and the condition of the nuisance; for it is said by many here that rabbits are not increasing. The wet spring may have some effect; but my own opinion is that, unless great efforts are made, the pest must become here, as elsewhere, a serious nuisance. No harm can come of the course suggested—viz., owners immediately east of Waikato to be induced to take effective means, condition of pest carefully watched, the bonus to Natives in King-country to be continued. I have condition of pest carefully watched, the bonus to Natives in King-country to be continued. I have not been able to attend to this as much as I should have liked: the Miranda infected sheep have occupied a great deal of my time, and, besides, I have to learn the country. I have, &c., E. CLIFTON, Inspector.

The Hon. the Minister of Lands (Stock Department), Wellington.

(1.) Trapping, shooting, digging out, and fumigating burrows. (2.) That Crown should acquire the Native lands known as King-country, and encourage settlement there. (3.) Rabbits are nowhere in this district in destructive numbers, but the infested area is slowly increasing. (4.), (5.) Nil. (6.) In Waikato, fifteen, besides the infested Native lands in King-country; infested area H. 9.—1.

estimated at 300,000 acres. (7.), (8.) Nil. (9.) 8lb. (10.), (11.), (12.) Nil. (13.) Three—in Waikato. (14.), (15.), (16.) Nil. General Remarks.—The bonus of 3d. per skin to Natives in Kingcountry is answering fairly well, but the purchase and settlement of these lands is most desirable.

### From Sub-Inspector G. S. Cooke, Whangarei.

(1.) to (16.) Nil. General Remarks.—It is only lately that rabbits have shown up, in small numbers, over the Kaipara Parish and Matakana. Being of the large grey sort, once tame, they do not increase fast; however, I have served notices to destroy them on all owners of land where I

### From Sub-Inspector H. Oldham, Hamilton.

(1.) Trapping, shooting, digging out, and fumigating burrows. (2.) No. (3.) Crown lands have been well attended to, and rabbits well kept under; private properties have also been well attended to, with the exception of two or three cases which have just come under my notice, and will have my immediate attention. (4.), (5.) Nil. (6.) Fifteen, including Native reserves, varying from 15 to 800 acres; none available for grazing. (7.), (8.) Nil. (9.) 1 jar and 2 tins. (10.), (11.), (12.) Nil. (13.) Jackson and Russell, Dr. Willis, and James Allen. (14.), (15.), (16.) Nil. General Remarks.—The destruction of rabbits has been carried on vigorously during the last twelve months, and is still being continued, by which rabbits have been greatly reduced in numbers in the Alexandra district. These have been a slight increase on the Hamilton Numbers. numbers in the Alexandra district. There has been a slight increase on the Hamilton, Ngaruawahia, Taupiri, and Oxford-Cambridge Roads, which is now being attended to.

### NAPIER DISTRICT.

Sir,-Sheep Inspector's Office, Napier, 1st May, 1890.

I have the honour to forward herewith the annual rabbit report of the Napier District for the year ended the 31st March, 1890, together with my replies to the queries referred to in circular. The Hawke's Bay Rabbit Board have during the year continued the rabbit-fence, which will be completed in about a month's time, ending at the Tiraumea River, above its junction with the Manawatu. The Board is making inquiries as to the work done by stoats and weasels, with a view to getting a shipment if it is thought advisable. I regret to say that rabbits have made their appearance in several places north of the fence. Mr. Crosse, the southern Inspector, reports that he has seen traces of rabbits at Maharahara. At Mangatoro, between Danevirke and Wainui, over 200 rabbits have been killed; and about Wainui, Tautane, and Wangaehu, 160. The ferrets turned out along the rabbit-line are spreading, and lately a stoat was found on the west side of the Manawatu River, though none have been turned out in this district. Mr. Sheath, the northern I have, &c., R. C. Pasley, Inspector, reports that the settlers are working satisfactorily.

The Hon. the Minister of Lands (Stock Department), Wellington.

Inspector.

(1.) Rabbiting, fencing on southern boundary, shooting, hunting with dogs, poison. (2.) No. (3.) The Inspectors of the Rabbit Boad report that the settlers have worked fairly satisfactorily, but that in the southern portion of the district rabbits have made their appearance in several places. (4.), (5.), (6.), (7.), (8.), (9.) Nil. (10.), Two. (11.) Two. (12.), (13.), (14.), (15.), (16.) Nil. General Remarks.—This district, or rather that part of it where there are rabbits, is under a Rabbit Board, which has done good work, having continued the rabbit-fence through to the Tiraumea River. It is unfortunate that the country was so heavily timbered, as otherwise the fence would have been erected in a much shorter time.

### Wellington-West Coast District.

SIR,-Sheep Inspector's Office, Wellington, 6th May, 1890. I have the honour to forward herewith the annual rabbit report of the Wellington-West Coast District for the year ended the 31st March, 1890, together with replies from myself and Sub-

Inspectors to the queries referred to in circular.

The past winter and summer have been unusually favourable to the increase of the pest, as, owing to the extremely light rainfall, no sharp floods have occurred, with the result that the destruction of the rabbits has been dependent entirely on human energy and agency. I believe a sharp flood or two during the spring is a most material assistance in preventing any heavy increase during the year. Rabbits are still numerous in places throughout the district; but, taken as a whole, I am of opinion that the numbers have decreased considerably since last year. I consider every encouragement and assistance should be given to the introduction of natural enemies, that rabbitproof netting should be made a legal fence, and that the import duties on all material and plant used in getting rid of the pest should be reduced to a minimum.

I have, &c.,
J. Drummond, Inspector.
The Hon. the Minister of Lands (Stock Department), Wellington.

(1.) Phosphorized grain, shooting, killing with dogs, trapping, digging out, breaking up warrens and holes, ferreting out burrows, fumigating the warrens with bisulphide of carbon, burning and clearing the bush and scrub, &c., erecting rabbit-proof fencing. (2.) To encourage the introduction of the natural enemies in large numbers. (3.) Very good, taking the district on the whole; on some properties they have increased a good deal since poisoning, more especially in the northern portion of the district, in spite of the great number of prosecutions, as the mild winter, with exceptionally low rainfall, and dry spring and summer, have been greatly in favour of the pest breeding. (4.) Fifteen. (5.) £447 10s. (6.) No reserves. Crown lands: approximate area 80,000 or 90,000 acres, mostly burnt bush, and very rough and broken country, and about 20,000 acres available for grazing. Every summer a great portion of the bush is burnt. About 50,000 acres requires poisoning; Native land requiring great attention, about 15,000 acres. (7.) 249lb. (8.) Nil. (9.) 20lb. (10.) Sixty-two. (11.) Fifty-three. (12.) Seven; withdrawn, two. (13.) Nil. (14.) Only a few persons breed ferrests in small numbers, mostly for their own use. (15.) Nil. (16.) Only one runholder; about 150, on 18,000 acres. The number being so small to the area downwards are the reserved time. formers will a great many raphite and every energy and every energy and every energy area. impression on the pest; at the same time, ferrets kill a great many rabbits, and every encouragement should be given to persons to breed. General Remarks.—In addition to the remarks made last year, report (H.-13, p. 3) to which I refer you, I should wish to add that I consider trapping, very large packs of dogs, and bisulphide of carbon are all very destructive to the natural enemies of the rabbits, and ought to be discouraged as much as possible where those enemies are known to exist, unless used only by trustworthy men. Landowners ought to encourage the working of tame

#### From Sub-Inspector R. K. Simpson, Marton.

(1.) Shooting and hunting with dogs and poisoning was tried last winter with good results.

(2.) I would recommend that a practical man be employed during the coming winter to poison, and show the settlers how to do the work of poisoning. (3.) Fairly good. (4.), (5.) Nil. (6.) I only know of a small railway reserve of some 600 acres near Foxton. (7.) 15lb. (8.), (9.), (10), (11.), (12.), (13.), (14.) Nil. (15.), (16.) No. General Remarks.—After the poisoning was completed in Horowhenua last winter, I carefully examined that part of the district, and failed to see a single rabbit. I am informed that a few have again made their appearance there. North of Rangitikei River rabbits appear to be slightly on the increase. I would strongly recommend the employment of a good man for the winter months, who would show the settlers the way to do poisoning.

#### From Sub-Inspector John F. McClean, Wellington.

(1.) Shooting in nearly all parts, and poisoning in those places were rabbits were thick enough. (2.) None. (3.) In places where rabbits were numerous, and where poisoning was properly carried out, good results were obtained. (4.), (5.), (6.) None. (7.) About 8lb. (8.), (9.) Nil. (10.), (11.), (12.), (13.), (14.), (15.), (16.) None. General Remarks.—Rabbits are thinly scattered all through this district, but, except in few places, do not appear to make headway, owing, no doubt, to the constant visits of the town sportsmen. In those places, however, further away from town, as the Pakuratahi, they are becoming a nuisance, and will require careful looking

#### MARLBOROUGH-NELSON DISTRICT.

Sheep Inspector's Office, Blenheim, 19th May, 1890. I have the honour to forward herewith the annual rabbit report of the Marlborough-

Nelson District for the year ending the 31st March, 1890, together with replies from myself and

Sub-Inspector to the queries referred to in circular.

Nearly all the rabbit-infested country is under the jurisdiction of the Awatere Rabbit Board. Very good work was done last winter on most of the runs, but not sufficient summer work. Trapping and shooting for the factories is now going on, and rabbits are not so numerous as they were at this time last year. Poisoning on nearly all runs has commenced, and some low country that was trapped for the factories last year has been poisoned this year first.

I find there is a far greater extent of unoccupied Crown lands in the district than I was aware of last year. There is one block of 115,000 acres, one of 22,600 acres, and several smaller blocks, or a total of about 140,000 acres, that will require to be patch-poisoned every year, the land having lately been put up for lease and passed in without a bid. Several miles of wire-netting fencing have been erected, and 956 ferrets and 1,081 stoats and weasels have been liberated by the I have, &c., T. G. Richardson, Inspector. Awatere Rabbit Board.

The Hon. the Minister of Lands (Stock Department), Wellington.

(1.) Phosphorized grain, trapping, and shooting. (2.) Nil. (3.) Very good work was done on most stations, and rabbits are not so numerous as at this time last year. (4.) One. (5.) £83 10s. (6.) Three blocks—viz., South Slopes, Tapuenuka, 22,600 acres; 115,000 acres between Tarndale and Hillersden Runs; about 1,200 acres Wairau River-bed of no value for grazing purposes. (7.) 51lb. (8.) None. (9.) 27lb. (10.), (11.), (12.), (13.) None. (14.) Six. (15.) None. (16.) 956 ferrets and 1,081 stoats and weasels have been turned out by the Awatere Rabbit Board.

#### From Sub-Inspector A. K. Blundell, Nelson.

(1.) Phosphorized oats, hunting with dogs and ferrets, shooting, trapping, and digging out burrows. (2.) Nil. (3.) On the whole, the district is in a satisfactory state, and I can safely say there is no increase of rabbits, but, owing to the exceptionally dry season, there have been an unusual number of young ones to contend with. (4.), (5.) Nil. (6.) Three small blocks, containing, in all, about 450 acres of very poor land. (7.) 4lb. (8.) 16lb. (9.) 33lb. (10.) One. (11.) None, (12.) One. (13.), (14.), (15.), (16.) Nil.

#### CANTERBURY-KAIKOURA DISTRICT.

Sheep Inspector's Office, Christchurch, 26th April, 1890. Sir,-

I have the honour to forward herewith the annual rabbit report of the Canterbury-Kaikoura District for the year ended the 31st March, 1890, together with replies from myself and

Sub-Inspectors to the queries referred to in circular.

The absence of floods or continual rains during the past year has been very favourable to the increase of rabbits. I have the satisfaction, however, of being able to report that in Canterbury there is no appreciable increase. The few rabbits that exist are chiefly confined to river-bed gorse and gorse fences, where, being of the semi-tame breed, they are not allowed to permanently increase.

In Kaikoura district I have to report a further decrease, owing, I think, mainly to the number of ferrets which have been liberated. There is a general wish in this district that ferret-breeding under Government supervision should be continued.

In East Amuri there is no material difference; silver-grey rabbits are scattered over the

district, but they are in no place numerous.

In West Amuri, outside the rabbit-fence, the heavy fall of snow early in June put a stop to poisoning operations, and rabbits have increased in consequence, the natural enemies-stoats and weasels—not being in sufficient numbers to check their increase. Poisoning on a larger scale will be commenced earlier this season.

In South Canterbury, outside the rabbit-fence, rabbits still continue to increase; it is expected, however, that the reletting of the runs on fixed tenures will induce owners to take more vigorous measures than they have in the past. Much of this country is so inaccessible that rabbits can only

be dealt with by natural enemies, such as stoats and weasels.

Rabbit-fences.—The South Canterbury fence continues to prove an effectual barrier to travelling rabbits; it is believed that none have passed the fence, and no repairs have been required. There have been 3,282 rabbits killed in the vicinity of the fence, all but a few odd ones of the semi-tame breed, on the outside of the fence. The Hurunui Board's fence is also effective, with the exception that some rabbits were allowed to get through the flood-gates at the Clarence end. These are being dealt with, and measures have been taken to prevent a recurrence of this. It may now be considered as beyond doubt that these fences, with strict supervision, will save Canterbury from I have, &c., R. Foster, Inspector. the rabbit-pest.

The Hon. the Minister of Lands (Stock Department), Wellington.

### From Sub-Inspector J. Moore, Kaikoura.

(1.) The ferret, poison, shooting and ferreting with nets, and trapping. (2.) Encourage the breeding of ferrets, put down trapping. (3.) Very satisfactory. (4.), (5.) Nil. (6.) Native reserve, Mungamaunu, frontage South Bay, foreshore North Bay to Waipapa boundary; unavailable for grazing. (7.) 22½lb. (8.) 12½lb. (9.), (10.), (11.), (12.), (13.), (14.) Nil. (15.) Four hundred and fifty; most satisfactory results. (16.) Eight hundred; satisfactory result.

## From Sub-Inspector S. R. QUARTLEY, Waiau.

(1.) Winter poisoning, dogging, shooting. (2.) That every encouragement be given to the erection of wire-netting fences. (3.) With the exception of the St. Helen's and Tarndale Runs, satisfactory work is being done, the feed everywhere being abundant. (4.), (5.), (6.), (7.), (8.), (9.), (10.), (11.), (12.), (13.) Nil. (14.) Four. (15.) Nil. (16.) About 600 have been turned out; results good. General Remarks. — Rabbits in this district are chiefly confined to the St. Helen's and Tarndale Runs, and most of this country is completely blocked with snow in the winters; it has therefore been deemed expedient to try early winter poisoning, which it is hered winter; it has therefore been deemed expedient to try early winter-poisoning, which it is hoped will give satisfactory results. Wire-netting fences to divide the large blocks are greatly needed to make rabbit work here a success.

#### From Sub-Inspector H. S. Thomson, Pukaki Ferry.

(1.) The use of phosphorized grain in winter, dogging, digging out, and shooting during summer. (2.) The importation of more stoats and weasels, timed to arrive in New Zealand not earlier than October nor later than January. (3.) No perceptible increase on Canterilly side of rabbit-fence, but more rabbits appearing along the fence on Otago side. Rabbits still spreading over a larger area between Ohau and Pukaki Lakes, though not more numerous on ground previously frequented. (4.) Nil. (5.) See "Remarks." (6.) Tasman Park Reserve, islands in Tekapo and Pukaki Rivers, and, if not re-leased, Run No. 88, 65,000 acres, and Run No. 93, 200,000 acres. (7.) 70lb. (8.) Nil. (9.) 140lb. (10.), (11.), (12.), (13.), (14.) Nil. (15.), (16.) None. General Remarks.—Though not properly coming under the heading "Tenders accepted," there were determined in the destruction of rabbits on unoccupied Crown lands, by day-labour—At head of Lake Ohau, 176; west side of Tasman River, 198; on islands in Takeno River, 190, on islands in Pukaki. £176; west side of Tasman River, £28; on islands in Tekapo River, £40; on islands in Pukaki River, £3: total, £247.

# OTAGO DISTRICT.

SIR,-Sheep Inspector's Office, Dunedin, 8th May, 1890.

I have the honour to forward herewith the annual rabbit report of the Otago District for the year ended the 31st March, 1890, together with replies from myself and Sub-Inspectors to the queries referred to in circular.

Mild growing weather continued up to the first week in June of last winter, when hard frosts set in, and continued almost without a break up to middle of August. So severe were the frosts, with

5 H.—9.

occasional slight falls of snow, that the phosphorized grain froze to the ground as soon as laid, and for some weeks good work could only be done on the sunny faces in high country. As the spring advanced, and there being no heavy rains to drown the young rabbits in their nests, or clear the banks of rivers, a wonderful increase of the pest was noticed by Christmas, and great pressure had to be put on landowners in order to keep it in check. Some 103 summonses were taken out, the fines inflicted, however, being in nearly every case the lowest allowed by law. Although rabbits increased so rapidly in the low country and along banks of rivers and bush-lands, there has not been a similar increase on the hills, and many people attribute this to the natural enemies. The return of rabbit-skins exported show a decrease of 2,641,466 for the year.

During the season 2,230 ferrets have been purchased by Government, and turned out principally on high country. About 5,000 ferrets have also been liberated by private individuals. Several runholders, who had made proper arrangements for breeding large numbers of ferrets, turned out all or most of their breeding-stock when they found that the Government had stopped all con-

tracts, objecting to having to bear all the expense themselves.

No weasels or stoats have been liberated in Otago during the year, but several of those (or their progeny) which were turned out at Lake Wanaka some five years ago have lately been seen in various places, one having been killed at mouth of Okuru River, on West Coast. Mr. Symons, of Makarora Station, reports that the natural enemy is now keeping the rabbits well down on his country without any summer assistance. The Wallace district still continues in a very satisfactory condition, and Sub-Inspector Miles states that the ferrets are doing excellent work in the very rough country between Molyneux River and Blue Mountains. Sub-Inspector Fullarton also speaks hopefully of them in Catlin's district.

I desire to again call attention to the very serious spread of gorse and broom on river-banks, mining reserves, public roads, and unoccupied private lands. It is only indirectly that owners can be compelled to clear land of gorse under Rabbit Nuisance Act, and it is next to useless trying to get public bodies to enforce cutting back gorse on road-lines, so many of them being personally interested. I regret having to state that the use of grain steeped with strychnine for the destruc-

tion of small birds is also killing numbers of cats.

I have, &c.,

ALFRED Douglass, Inspector.

The Hon. the Minister of Lands (Stock Department), Wellington.

### From Sub-Inspector W. MILLER, Oamaru.

(1.) Phosphorized grain, shooting, digging out, hand-working ferrets, and liberating ferrets.

(2.) Would recommend that the liberation of the natural enemy be continued. Considering the difficulties of dealing with the rabbit-pest on high back country, am of opinion that upset rentals should be fixed very low. (3.) Successful poisoning during winter months, but, owing to an exceptionally dry summer, a decided increase is noticed in certain localities. Throughout the district, generally, however, there is a marked improvement. (4.) Two. (5.) £55. (6.) Seven reserves, 6,853 acres; 43,000 acres Crown runs: total, 49,853 acres: about 40,000 acres fit for grazing. (7.) 224lb. (8.) 16lb. (9.) 280lb. (10.) Two. (11.) Two. (12.), (13.) Nil. (14.) Three. (15.) Two hundred and fifty; reported doing well. (16.) About 200; so far, doing well. General Remarks.—Landowners in the Waitaki district appear to adopt a better system of dealing with the rabbit-pest than formerly, and, consequently, more effectual work is done. Preparations are now being made for a thorough poisoning during the forthcoming winter.

#### From Sub-Inspector R. Hull, Palmerston.

(1.) Poisoned grain, trapping, dogging, shooting, digging out and fumigating burrows, ferrets and nets, and flooding by water-races where practicable. (2.) That wire netting be made a legal fence; that the continued turning out of the natural enemy be encouraged by granting a bonus; that stoats and weasels be procured for Crown lands; and, if possible, some restriction be placed on the sale of rabbit-skins, to prevent the farming of rabbits. (3.) The good work done in the winter has been almost nullified by the unprecedented dryness of the season, which has enabled the young rabbits to survive. On the whole, rabbits are not quite so numerous as last year, as much better work has been done during the summer. (4.) Three. (5.) £17. (6.) Ten river-mining and commonages; about 1,400 acres altogether, about half of which is available for grazing. (7.), (8.), (9.), Nil. (10.) Twenty-one. (11.) Twenty. (12.) None; one case withdrawn. (13.) Nankeville and Son, H. Benjamin. (14.) Two. (15.) None turned out by Government. (16.) Very few. General Remarks.—It is impossible to estimate the progress made in the destruction of rabbits this year, as such a dry season was never known before, which doubled the difficulty of suppressing the pest. I should say, however, that quite twice the number of rabbits have been killed during the summer in this district than there were last year. One of the greatest evils to contend with is the desire some owners have to save the rabbits till the winter, when the skins are more valuable.

#### From Sub-Inspector R. Corbett, Clyde.

(1.) Poison, trapping, shooting, ferretting with nets, digging out, and flooding out. (2.) That cats, stoats, weasels, and ferrets be turned out in large numbers, and that trained ferrets and shooting and digging out take the place of trapping, and that hunting with packs of dogs should not be permitted. (3.) Fair. Owing to the very dry season, settlers have been hard pushed to cope with the pest, chiefly along the banks of creeks. (4.) Seven. (5.) £610. (6.) Hunter country, about 30,000 acres; grazing, about 15,000 acres: Cromwell Commonage, about 9,000 acres, all grazing; Clyde Commonage, 5,700 acres, all grazing; Hawea Hundreds, about 12,000 acres, all grazing; Hawea Bush Reserve, about 2,000 acres. (7.) 10lb. (8.) 40lb. (9.) 100lb. (10.) Ten (11.) Ten. (12.) Nil, (13.) Clyde Cemetery Trust and Vincent County Council. (14.) Nine.

(15.) Four hundred; only turned out lately. (16.) About 2,500; they are spreading over the country, but are not in sufficient numbers for their work to be traced. General Remarks.—I should like to see every encouragement given towards the erection of rabbit-proof fences. The railway freight and cartage to this district is a great check to the use of wire netting. Rabbit-proof fencing, if well looked after, in low country is, I consider, the most effectual way of dealing with the pest, and for high country the natural enemy.

### From Sub-Inspector W. A. Scaife, Outram.

(1.) Poisoning, shooting, dogging, trapping, some cases working ferrets, and turning out the natural enemy. (2.) That, owners having had ample time to be thoroughly conversant with the working of the Rabbit Act, the notice required under section 8 should be dispensed with, and Inspectors be allowed to deal summarily with negligent owners. (3.) The poisoning during last season was very satisfactory, but, owing to the extremely dry and favourable summer, the rabbits are again rather plentiful. (4.) Two. (5.) £35 10s. (6.) Seven thousand three hundred; about 3,700 acres available for grazing. (7.), (8.), (9.), (10.), (11.), (12.), (13.), (14.), (15.) Nil. (16.) About 150, by Gladbrook Station; results not visible. General Remarks.—Ferrets seem to be increasing about the district, but, where trapping is used to destroy the pest, the ferrets are continually being caught and destroyed.

#### From Sub-Inspector B. Fullarton, Balclutha.

(1.) Poisoned grain in winter, trapping and fumigating where ferrets not turned out, dogging, digging out burrows, and working ferrets by hand. (2.) I recommend that more of the natural enemy be turned out along the bush-land, where it is difficult to cope with the pest by other means. (3.) Fair progress has been made considering the favourable season for breeding. Owing to the exceedingly dry spring and summer, no young rabbits having perished from wet weather, a larger number of rabbits have been destroyed than usual in summer. (4.) One. (5.) £15. (6.) Twenty-four reserves; about 4,000 acres rough pastoral land, unsold land about 90,000 acres, mostly dense bush-land. (7.) 59lb. (8.) None. (9.) 61½lb. (10.) Four. (11.) Four. (12.), (13.) None. (14.) Four. (15.) One hundred; result good. (16.) One hundred and fifty; result not yet known. General Remarks.—The ferrets turned out by the department on unoccupied Crown lands, especially on sandy open ground and along edges of bush near the mouth of the Catlin's River, Glenoamaru district, have had good effect in keeping down the young rabbits, as, when going over the ground during this summer, I observed exceedingly few young rabbits. Ferrets evidently thrive well along the bush-country, as all seen by the settlers are strong and healthy.

### From Sub-Inspector T. J. Miles, Lawrence.

(1.) During winter months, poisoning; remainder of year, trapping (in places), shooting, dogging, digging out, "Torpedo Rabbit Exterminators." Ferrets in hand extensively used, and ferrets turned out. (2.) Would strongly recommend the turning out of the natural enemies—viz., ferrets, stoats, and weasels—in large numbers; that wire-netting fences be included in the Fencing Act, and made a legal fence; and that where practicable the rough country be netted off from the low ground; also, that the gorse question be dealt with. (3.) Very fair; rabbits are less numerous now than at this time last year, notwithstanding the dry weather during the breeding-season, the high ground especially being very free from rabbits. (4.) Two. (5.) £75 10s. (6.) About 30,000 acres mining, bush, and unsold sections; about one-third available for grazing purposes. (7.) 1951b. (8.) Nil. (9.) 1651b. (10.) Thirty-four. (11.) Thirty-four. (12.), (13.) Nil. (14.) Two. (15.) About 825, with good resuts. (16.) About 500; owners well satisfied with results. General Remarks.—Owing to the dry winter and spring, and through the whole of the breeding-season, the rabbits increased very rapidly, and, as owners were very backward in endeavouring to keep them in check, I had to take legal proceedings against a great many settlers, both large and small, which had the desired effect, not only with those who were summoned, but throughout the district. The high ground is very clear, and at present the rabbits are confined to the low ground and riverbanks. The ferrets, where turned out in sufficient numbers, have done excellent work, and I would strongly recommend that they be bred and turned out in larger numbers than at present. The effect of the ferrets can be seen in my district on Siberia, portion of Mr. MacKellar's run on the Molyneux River, where, during the last three years, I have turned out about 1,500 on the river-banks; and all I find it necessary to do there now is poisoning in the winter. Where ferrets have been turned out, it is absolutely n

### From Sub-Inspector J. M. Scott, Queenstown.

(1.) Phosphorized grain, trapping, ferreting with nets, digging out, and fumigation. (2.) Nil-(3.) Fairly good, considering the dry spring and summer. (4.) Four. (5.) £60. (6.) Fourteen—mining, agricultural, and bush; 18,750: Crown Runs 455 and 36; with the exception of about 5,000 acres, all fit for grazing. (7.) 90lb. (8.) 40lb. (9.) 310lb. (10.) One. (11.) One. (12.) Nil. (13.) Twenty-six. (14.) Three. (15.) Yes; 298 ferrets. I think, with good results. (16.) Yes; about fifty. I think, with good results.

### From Sub-Inspector Hassall, Lumsden.

(1.), (2.), (3.). Having just taken charge of district (1st April, 1890), cannot say. (4.) One. (5.) £15. (6.) About 100,000 acres, of which about 10,000 acres is open pastoral country; the balance is bush reserve. (7.) 38lb. (8.) 20lb. (9.) 2lb. (10.) Nineteen. (11.) Eighteen, and one under section 12 paid into Court. (12.) Nil. (13.) School Commissioners of Otago (six cases),

C. G. Thurston. (14.) Eleven. (15.) Yes; 192. (16.) About 400; cannot say definitely, but have always found them of great service. General Remarks.—I should strongly favour a scheme of supplying proper poison to small landowners at a minimum cost; the further liberation of ferrets, or any natural enemy, in the most favourable season—namely, spring. Cats do grand work in suitable country; and I would like to see more attention paid to the liberation of them.

### From Acting Sub-Inspector Bree, Gore.

(1.) The use of phosphorized grain in winter and systematic trapping in spring and summer are the two great factors in rabbit-destruction in this district; fumigating, and the use of dogs, ferrets, and bisulphide of carbon, are also resorted to as adjuncts in suitable localities. (2.) Continued attention to liberation of the natural enemy in suitable places, and greater inducements being given to use wire netting by making it a legal fence. (3.) Progress continues to be satisfactory, and, though the natural increase during the past breeding-season, owing to the exceptionally fine and dry summer, has been phenomenal, the efforts of landowners generally has been attended with satisfactory results. In very few places is there cause for complaint, and the ensuing poisoning-season should remedy these. (4.) Nineteen. (5.) £179 3s. 6d. (6.) Roughly speaking, 124,000 acres bush-country, which requires constant care as regards the frontage, and about 15,000 acres open land, the greater portion of which is fair pastoral country. (7.) 225lb. (8.) 115lb. (9.) 298lb. (10.) Eleven. (11.) Nine. (12.) One dismissed and one struck out. (13.) School Commissioners of Otago (four cases), the Colonial Investment and Agency Company. (14.) Twelve. (15.) None this season; those previously turned out in back country have done well. (16.) Very few; where suitable localities have been selected, I have found them to be of great service. General Remarks.—I am satisfied that the partial failure of the general poisoning is owing to the inferior quality of much of the poison laid. The small settler, as a rule, has very primitive appliances for mixing, and less knowledge of how to do it. I would suggest that dépôts be established in central positions, where landowners could obtain properly mixed poison at primary cost. I am strongly of opinion that the liberation of the ferret should be undertaken in the early spring and summer, instead of the autumn. In the former seasons there are many young rabbits about, and the doe ferrets would teach the

### From Sub-Inspector H. Hull, Thornbury.

(1.) Phosphorized grain, working ferrets, shooting, a little trapping, and a few small packs of dogs, also fumigating along railway-lines. (2.) Legal authority to be given to Inspectors to order occupiers of land, when necessary, to cut and trim all line fences that are likely to harbour rabbits. (3.) This district continues in a very satisfactory state, though there has been a slight increase of rabbits in patches, owing to a large number of ferrets having died last winter. A careful poisoning this winter will, I think, keep them down. (4.), (5.) Nil. (6.) There are a large number of small reserves in Aparima Subdivision, none available for grazing licenses; also extensive bush reserves. (7.) 24lb. (8.) Nil. (9.) 100lb. (10.), (11.), (12.), (13.) Nil. (14.) Nine. (15.) Yes; 165. Very satisfactory. (16.) Yes; 1,089. Very satisfactory. General Remarks.—That poisoning can be carried on during the summer months by laying the poisoned oats on turned up sods during cold or showery weather.

#### From Sub-Inspector J. McKellar, Invercargill.

(1.) Phosphorized grain principally; trapping, and working ferrets. (2.) Professional rabbiters to cease; power to be given to compel owners of gorse to keep same within certain limits. (3.) The season being favourable, the rabbits increased during spring, but have since been reduced. Good poisoning this season will reduce them to a minimum if weather favourable. (4.) Four. (5.) £53. (6.) Principally bush reserves; about 4,000 acres available for grazing purposes, principally in Campbelltown and Oteramika Hundreds. (7.) Contractors bought their phosphorus from outside the Government. (8.) None. (9.) 130lb. (10.) Two. (11.) Two. (12.), (13.), (14.) (15.) None. (16.) None, so far as I am aware. Ferrets previously turned out have done good work where not disturbed. General Remarks.—If weather favourable in the month of January, I believe in poisoning with phosphorized grain, at a strength of 1lb. of phosphorus to 50lb. of oats, and adding thereto 1lb. of sugar or ½lb. of salt before taking out of the mixer, by laying in small quantities on a newly turned-up sod or plough furrow. I am also of opinion that the poisoned grain laid for the destruction of the small birds is the means of killing a good many ferrets and cats.

APPENDIX.

COMPARATIVE STATEMENT of the Number and Value of Babbit-skins exported from the Colony during the Years ended the 31st March 1884 to 1890

COMPARATIV	NE CL	Comparative Statement of the Number and Value of Kaddif-skins exported from the Colony during the Years ended the 31st March, 1884 to 1890.	the Numb	er and Val	ue of Kabb	nt-skins exp	ported from	the Colony	auring.	tne rears	ended th	ne 31st M	larch, 18⊱	4 to 1890	·
7					Number.							Value.			
District.		1884.	1885.	1886.	1887.	1888.	1889.	1890.	1884.	1885.	1886.	1887.	1888.	1889.	1890.
									બર	લર	43	43	43	بن	c <sub>1</sub>
Auckland	:	:	:	229,000	•	1,468	3,336	5,309	:	:	2,182	:	12	83	46
Wellington	:	706,894	889,436	1,240,223	544,712	337,988	313,441	583,198	7,901	9,220	12,550	4,825	3,428	2,671	4,299
Blenheim	:	:	68,736	:	:	87,716	460,479	700,471	•	848	:	:	972	5,228	7,474
Lyttelton	:	1,745,954	1,525,730	2,308,650	3,689,382	762,556	198,876	37,848	16,491	15,738	22, 252	24,544	6,147	1,253	331
Oamaru	:	:	24,534	121,135	17,170	52,700	57,240	152,550	:	256	1,009	163	440	480	1,339
Dunedin	:	6,514,884	7,014,993	4,787,600	4,376,228	9,986,752	10,801,641	7,929,493	67,055	79,242	42,217	35,875	85,842	81,795	66,256
Bluff	:	924,609	345,636	205,764	272,600	896,691	750,448	876,820	9,230	3,346	1,637	1,839	11,388	6,141	7,416
Other ports	:	:	:	:	:	:	7,716	9,528	:	:	•	:	:	31	57
Totals	;	9,892,341	9,869,065	8,892,372	8,900,692	12,125,871	12,593,177	10,295,217	100,677	108,640	81,847	66,246	108,229	97,632	87,218

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