

cent. at least. The reduction would vary of course according to the circumstances of each case, and the means taken for suppression. It must not be taken that, because the carrying capacity has been reduced from two sheep to one, the reduction is 50 per cent. That is not the percentage at all, because the return to the owner from the 50 per cent. left may be very different from the half of the former return.

181. How far has the capacity to carry increased, where rabbits have ceased to be a nuisance?—The carrying capacity has increased, as the rabbits lessened, in the same proportion as the capacity decreased as the rabbits first became numerous.

182. Has the natural pasture been permanently injured by rabbits?—I am able to give a very pertinent answer to that question. About four years ago I happened to pass over a part of the district that was very well naturally grassed, and able to carry two sheep to the acre if fenced. Ten days ago I passed over the same ground, and literally there was not a vestige left of anything in the shape of vegetation except a little moss. There was literally nothing of the tussock, and even the cabbage trees had been gnawed right through.

183. Then the natural pasture there was permanently injured?—It was wholly destroyed. There was nothing left.

184. *Hon. Mr. Menzies.*] Do you know of any country where the vegetation was destroyed and sprung up again when the rabbits were thinned?—I knew some land up the Ruamahunga that had a good deal of longish grass on it when I first knew it, but rabbits brought it almost to the same state as the land I have just spoken of. About two years ago the rabbits were so much reduced as to give the grass a chance. I passed over the ground the other day, and the grass was not by any means so good as formerly.

185. In this case, after two years elapsing since the rabbits were destroyed, the pasture is not nearly so good as it was before the rabbits came?—Decidedly not.

## APPENDIX E.

TUESDAY, 19TH JULY, 1881.

Mr. JOSEPH WARD (of the Wairau, near Blenheim), examined.

186. *The Chairman.*] What experience have you had of the rabbit pest?—I saw them first turned out at Kaikoura, and since then I have known as many as 90,000 killed in a single season on two runs, and some adjoining land that was not runs. On one run known to Mr. Collins, they completely destroyed everything. That run used to keep 10,000 or 12,000 sheep, but I heard only the other day they had all been boiled down—all but two. Now the rabbits there have been headed by poisoning, and turning out ferrets. Some years ago I knew that ferrets would be the best if they could be obtained, and a lot of us sent Home to England and got 600 sent, but only three ferrets and two weasels were landed, so it was a rather expensive affair. There are a great many there now.

187. You have not the ordinary wild rabbit there, as in Southland?—No, the silver grey.

188. That has a more valuable skin altogether?—Yes. I said at the time they were turned out I thought it would be a very foolish thing, but Mr. Keene said they would do no harm, and would only give a little sport.

189. You have not the ordinary wild rabbit there yet?—No, I think not; chiefly the silver grey. A run in which I am interested, in the Wairau, thousands upon thousands were killed on it. On the Vernon Run, 4,000 or 5,000 acres of the best land was swept clean like a floor by them. The first season, the poison was used without any ill-effects, but the next season—that was last season—1,600 sheep were poisoned. Sheep take very readily to it after they once begin. Sheep must be in inclosures while poison is laid where rabbits are most numerous. This season is the best we have had. We poisoned with phosphorus and oil of rhodium. We mixed the poison with wheat at first, but most of the sheep were killed with poisoned oats. I believe sheep would take the wheat. When once they get to know it they take up every grain.

190. Have you used any other means except poison?—Before we began to poison we trapped and shot them, and turned out what ferrets we could get, but we made no impression on them until we got the poison. Now, since the ferrets have got numerous, the rabbits do not trouble us. My own impression is that poison is the best remedy, and, when poison has reduced their numbers very much, ferrets, weasels, or stoats should be had to keep them down.

191. Would you recommend the introduction of weasels?—I would. As far as my knowledge goes, they are most active, destructive little animals.

192. Any other natural enemy?—The stoat.

193. That is a stronger variety of the weasel?—My impression is that the stoat is the smaller of the two. I should have said that on an adjoining run 2,000 sheep were lost by poison. It requires the greatest care, or you may have great losses.

194. *Hon. Mr. Peter.*] How did you lay the poisoned grain?—In little heaps. I do not think the manner of laying it makes much difference; because in a stubble-field sheep will pick up every odd grain. They were merino sheep killed on both runs.

195. *The Chairman.*] Then these two cases of poisoning sheep have come under your own notice?—Yes. I have known of other cases also, where sheep have been lost. At Kaikoura some were poisoned.

196. Can you give any estimate of the cost of poisoning, say, the 1,000 acres?—No. It varies in every instance. We gave the poison and supplied the men with food, and the men had the skins. We calculated the cost to us was about 1d. per rabbit. Mr. Carter was giving at the rate of 1s. a rabbit.

197. In Southland, we have the ordinary wild rabbit, and you have the silver-grey; so that the cost to you would be less, the skin of that species being more valuable?—Yes; the skin is more valuable.