

sulphate of iron—material?—No; it is very cheap. The sulphate of iron is worked into the ground.

179. *Hon. Mr. Duncan.*] With regard to the Otahuhu orchard, was it not a committee of fruit-growers that recommended this orchard to be taken?—Yes.

180. They selected it as the worst to deal with?—Yes.

181. And it was handed over for the Government to experiment with—to show what could be done with the pest?—Yes.

182. Mr. Bollard put some questions as to the financial aspect of the matter. Was it an orchard, in the first place, that you would class as suitable for the best results in the way of profit?—Decidedly it was not.

183. Where did you consider it should have been different? Was it in the class of fruit produced, the way in which the trees were planted, or the way they had been attended to up to the time you took the place over? In which way was it not, in your opinion, what it might have been?—It was the class of trees, and the way in which they had been attended to up to the time of my taking the orchard in hand.

184. Were they the most profitable class of trees that you would expect to grow fruit from for sale in the Auckland market?—No. One variety is fairly profitable.

185. What proportion did that variety bear to the number of trees in the orchard?—I could not tell you that without working it out.

186. How many trees are there in the orchard altogether?—I have the number here—229 altogether.

187. Were there forty of these that you would class as a suitable sort for producing apples for sale, out of the whole lot—I do not want the exact number?—It would be about one-third.

188. If the orchard had contained a better class of trees, would the results now have been very much better than they are, or would they have been worse?—If the orchard had contained different varieties and a more profitable class of apple the results would have been far better.

189. Do you think the orchard as it is would pay for keeping—as a paying orchard?—Well, not under present conditions. The trouble is this: With our summer apples—and the larger number of trees at Otahuhu produce summer fruit—we have to meet in occasional seasons excessive supply, and the price of clean fruit during a season when the glut is excessive is really not remunerative at all.

190. What would be about the best-paying size for an orchard if a man had a family, or if he had not a family, to help work it?—From 15 to 20 acres.

191. How many men would be required to attend to an orchard of, say, 20 acres during the summer?—A man could manage a 20-acre orchard most of the season by himself, but during the gathering season it would be necessary for him to employ extra labour.

192. Would you prefer keeping an orchard in grass, or delved with a horse-hoe?—Decidedly under cultivation.

193. Under any circumstances you do not think this orchard at Otahuhu would be a paying orchard?—I consider that last season we made a fair profit, but that is not to be relied upon during a number of seasons on account of the varying prices in the markets. If we had anything like a reliable market from season to season money would be made from that orchard; but the prices next season, say, may be next to nothing.

194. Do you know anything about the orchards north of Auckland?—Yes; I have visited all through the Auckland Province.

195. Have you been at Port Albert?—I have.

196. Have you been in an orchard there belonging to Mr. L. P. Beecroft?—Yes.

197. What is your opinion on the proportion of fruit that that orchard carries as against the one you are operating on?—I have not been there at the time they gather the fruit.

198. Have you not been there when the trees were in bearing?—No.

199. Are you aware of the size of the orchard?—I could not tell you now what size it is. I visit so many places that it is practically impossible to bear in mind the acreage of the different orchards.

200. Would you suppose it is 15 acres, or more?—Yes, I believe it is about that.

201. Have you had any conversation with Mr. Beecroft about the codlin-moth or about the Bill?—I know that he is in favour of the Bill, and that he considers it would be extremely beneficial to the whole of the Auckland Province.

202. *Hon. the Chairman.*] We have some interesting information in last year's report about this parasite that destroys the codlin-moth egg. There is some evidence by Mr. Boucher in it, and I want to get it in in connection with his evidence now. You know your evidence last year in this respect, Mr. Boucher?—Yes.

203. Your statement here in this report showed the result of the investigation that you made, as you were asked?—That is so.

[Extract from Report of Government Biologist, Mr. T. W. Kirk, 1902, produced, as follows.]

CODLIN-MOTH PARASITE.

Last year a great deal was said in Auckland about a natural enemy of the codlin-moth in Mr. Parr's orchard. Mr. Boucher, who made the discovery, gave a very full account of the matter in last year's annual report.

The parasite was discussed at some length at the Horticultural Conference. I mentioned that, Mr. Boucher having procured some specimens for me, I, knowing that Professor L. O. Howard, of Washington, had paid particular attention to the possibility of fighting the codlin-moth by means of parasitic insects, sent them to him, and received the following reply: "The parasite which you sent, raised from eggs of the codlin-moth, is apparently *Trichogramma pretiosa*, Riley. This is the same parasite which has been reared from the eggs of the codlin-moth, in New York State, by Mr. M. G. Slingerland."

I repeat the warning so often given, not to rely too implicitly on natural enemies. If the Americans, with their magnificent advantages, had not been able to derive any substantial assistance from the cultivation of parasites, it was not likely we should.