

and that of producing a bad apple?—The difference is *nil*; but if you do not produce a fruit which will carry green or can, or dry, you lose the extra profit found in growing such.

136. In fact, it is quite as cheap to grow a good apple as a bad one?—Yes.

*Mr. Moeller*: I should like to say in regard to what *Mr. Grapes* has stated as to the auction sale of fruit in Wellington, that I was at the sale, and that the apples he refers to as scarlet pearmain were really beautiful apples, and you could not get their equal in New Zealand. The cases were large, holding 50 lb. or 55 lb., and there was full measurement in every case. They were fetching as high as 11s. to 12s. a case. I question if Sturmers or Cambridge pippins would fetch 9s. a case. The fact is our growers will not fill the cases. In my opinion second-class apples are only worth 6s. a case.

*Mr. Grapes*: *Mr. Moeller's* statement has but further emphasized the pressing necessity for a thoroughly workable Pest Act, and confirmed my evidence in its favour.

From *Mr. D. H. WILLIAMSON*, Wanganui, in reply to an invitation to give evidence on the Bill in writing.

The CHAIRMAN Joint Agricultural, Pastoral, and Stock Committee.

SIR,—

I am strongly of opinion that it is urgently necessary that a Bill should be passed this session to check the spread of several of the most pernicious insects which are established in the colony and injurious to the progress of the fruit industry, as well as to prohibit the sale of plants or fruit so infected, also to prohibit the introduction into the colony of plants or fruit without careful fumigation or other means of cleansing.

The worst orchard-pests we have to contend with upon this coast are the codlin-moth, apple-maggot, and various kinds of scale. The codlin-moth first came under my notice in February, 1884, in an orchard four miles from Wanganui; the trees were completely thick with fruit all full of moths. I recommended the owner to use bandages in the forks of the branches, which I had seen recommended in an American paper; this he did, and was so successful that in a few years his orchard was what he thought perfectly free from the moth. However, he let his orchard, and through neglect the moth again took possession. But there is little doubt in my mind that proper attention with bandages and spraying with Paris green, properly prepared and used, at proper seasons, the moth can be reduced to a minimum. I consider some of the scale species worse to deal with than the moth, as they adhere so closely to the bark it is difficult to get at them, and are as destructive in their way, though *Mr. Wheelband's* specific spray has proved very effectual by those who have used it here.

But perhaps the worst of all the insects we have to deal with is a fresh introduction, and is most destructive to the orchard; it is called the apple-maggot of America, scientifically called *Trypeta pomonella*. It is a two-winged fly, the larva of which enters the side of the apples when they are half-grown, and tunnels through the fruit in all directions. This insect increases faster than the moth and flies much further. The devastations of the insect-pests are making such strides and serious havoc amongst the fruit that if steps are not taken by the Government to compel orchardists to keep down the ravages of several of the worst insects, clean orchards and sound fruit will shortly be a thing of the past.

D. H. WILLIAMSON, Wanganui.

TUESDAY, 9TH AUGUST, 1898.

*Mr. W. BARKER*, Waikonini Orchard, examined.

1. *Hon. the Chairman.*] What is your profession?—Fruit-growing is my chief profession but I have other means.

2. What district do you come from?—From Peel Forest, South Canterbury.

3. Have you read the Bill which is before the Committee?—Yes.

4. Will you please explain what experience you have had in fruit-culture?—I commenced about 1884, when I put in a thousand trees. I put in 1,800 trees in 1893, and about seventy-five since then.

5. What experience have you had in dealing with fruit-pests, and especially with the codlin-moth?—I have had no experience with the codlin-moth; I only know of that by report.

6. Will you tell the Committee what your experience with other pests has been?—Most of my experience has been with apple-scab, pear-slug and pear-phytoptus, mussel-scale, and black-scale.

7. What means have you taken to get rid of these pests?—I used Bordeaux mixture for the first. That is an almost certain cure if carefully applied. Some years ago I lost annually the product of a number of trees through that pest, but of late years I have tried washing with Bordeaux mixture, and I find that the blight is easily kept down. The pear-slug I have had no trouble with, hellebore being a certain cure. The pear-phytoptus is very difficult to deal with. I have tried several things with that, and it was only last year that I succeeded in dealing with it successfully. I commenced rather late, when the pear-trees were in blossom, but by carefully syringing them with lime, salt, and sulphur—the Government recipe—I have succeeded in getting rid of the pest. I think that lime and salt and sulphur is a good mixture for it. For the mussel-scale I also used lime and salt and sulphur. I have treated them with that, and we find it very satisfactory in South Canterbury. I have mentioned black-scale, but I may say that it is very exceptional down our way. I have only found it once, on a nut-tree, and by an application of Bordeaux mixture we got rid of it altogether. I have not seen it again until this year, and then I saw it on some orange-trees which were imported from the North Island. I brought them down simply as an experiment for ornamental purposes. I noticed the scale on them next season, but whether it came from the North Island or not I cannot, of course, say for certain. As regards the American blight, I cannot understand how any one has any difficulty in keeping it under. It is very easily got at if it is up in the trees, but if it gets into the roots it is a different matter, though if you persevere with summer treatment in time you exterminate it at the root, as it only winters there. With us, latterly, in the South, we have found that the “lady-bird” (*Coccinella 11-punctata*) has been a great help to us—the eleven-spot one. I have counted as many as a hundred or two on a tree. It winters under the moss or lichen, called