

COMMITTEE ROOM 46,

HOUSE OF COMMONS,

WEDNESDAY, 1st April, 1896.

The Select Standing Committee on Agriculture and Colonization met this day, Mr. Sproule, Chairman, presiding.

Mr. JAMES FLETCHER, Entomologist and Botanist to the Dominion Experimental Farms, was present by request, and, on invitation, addressed the committee as follows:—

Mr. Chairman and Gentlemen,—The annual appearance before the Committee is always one of the pleasant features of our work, because we find it is very useful as members of the Experimental Farm staff to come into direct communication with the Members of Parliament from all parts of the Dominion. In that way, we have opportunities of making our departments useful to the constituents of those Members. Naturally, if a matter is brought before the attention of members at the meetings of this Committee, they remember it, should occasion arise; whereas if we had not the chance of meeting the members, many opportunities for useful work would be lost. The different officers of the farm staff naturally consider that their own particular work is the most important to the country. With regard to my own, I know that it is, but I want to lose no opportunities for making this fact known to the public at large. The correspondence with all of the divisions of the Farm is very large, and we are frequently able to trace the influence of Members of Parliament through many of the letters that we receive, from the fact that many of the farmers, when writing, seem to think they are under an obligation to us when receiving information, and they mention the fact that they have been told to write by their Member of Parliament. We wish it to be widely known that the more the farm is made use of, the better we are pleased. We wish to be referred to, and we wish the farmers of the Dominion to make use of the information that has been gathered by the members of the farm staff. I state this now, because the matter has been mentioned to me by one of the members of the Committee, and I am glad to have an opportunity of drawing attention to it.

INSECTS INJURIOUS TO FRUITS, AND THE REMEDIES.

The work in my own department during the past year has been carried out on very similar lines to those of previous years. There are to be recorded some triumphs in the way of practical remedies for some of the injurious insects. We are able now to speak definitely of many matters concerning which there was some doubt previously, as a result of experiments carefully carried out and compared with the accumulated experience of previous years. The work in the entomological division during the past year has been very largely with regard to insects injurious to fruits. This, I think, does not indicate that the injuries to fruit have been more serious than to some other crops, but that more attention has been paid to the matter of destroying injurious insects by the fruit growers than in some of the other branches of agricultural industry. The fruit growers of Ontario and Nova Scotia, particularly, have adopted very largely the improved methods of "spraying" with insecticides and fungicides to protect their crops against insect and fungus enemies. This simple and cheap operation has given such good results, that the work of a few has acted as an object lesson for the rest in the different districts where it has been conducted. Good careful work by a comparatively small number has convinced the rest of the fruit growers in the districts of the efficacy of treating their trees in this manner. There is now nothing indefinite or doubtful about the effects of the use of some of the arsenites or compounds of arsenic for treating biting insects, that is those which bite their food.

All insects for economical purposes come into two large orders, those which bite their food, and those which suck the juices out of it. For those which bite their food, and eat the substance of the leaves, poisonous materials placed on the surface are effec-