

clover at is half of that. Clover ranges at from \$3 to \$9 at different times of the year for seed. We will put it at \$4, at which price, five years ago, we got \$340,000 for our produce. Now there is not a bushel of clover seed raised in Canada. I will not say that; but I think I may say that last year, owing to the presence of a small insect which has come here and developed itself, and is now one of the most important pests we have to fight against, there was hardly a bushel of clover seed raised in Canada. By correspondence with practical farmers, and with the Master of the Grange, a large and influential organization, which has cordially met my views and has given me every assistance, I find that by a slight change of only a fortnight in cutting the clover, or rather of pasturing it until the middle of June, instead of cutting it at the beginning of June, a great increase in the product this last year was the result. This is in the report I mentioned. In that report I have made a special investigation of certain insects. It will be distributed by the Minister, separate from his own report, and will be sent among my correspondents, who now number about 400. If any gentleman here hears of any important pests attacking our farm crops, he will confer a great favour upon me, and possibly a great advantage upon the country, by letting me know about it. In such a large country as Canada it is almost impossible for any one man to do any appreciable amount of good; but if we cannot take the whole loaf we must take the half. But so far as I am concerned, I shall do what I can. I have taken the study up as a hobby, and, if the Government thinks it is a good thing, they can get a learned man who has made it a special study to continue the investigation, and I have no doubt at all, that the most important results will be the consequence. A low estimate places the insect injury to the crops at 15 or 20 per cent. But it frequently happens that the whole of the clover seed crop is swept out entirely. That is 100 per cent. We know, too, that in certain parts of Canada the wheat, our most important crop, has been injured; and one reason why I wished to come before the committee was that I might point out the importance of entomology with reference to that crop. We have in the North-West the best country in the world for hard wheat. It produces the finest wheat in the world. The only country that is at all comparable to it is western Siberia. Wheat, I say, is a staple crop. We have not suffered in that country from insect pests; we have not, in the new country, the pests they have in the old countries. If, therefore, we can by any means disseminate information among farmers in advance of the arrival of those pests, let us do so, in order that when they come they may nip them in the bud. It has been said that every plant has six insect pests. I am sure there are nine; but at the very least there are six different kinds of insects which attack plants.

*By Mr. Trow:*

Q. Are there not more than one on gooseberry and currant bushes? A. Several; but they are all of a nature that can be easily kept in check.

Q. Fruits? A. I know of no insects—except one or two—which have been experimented with, that cannot be kept in check.

*By the Chairman:*

Q. You believe all insects can be kept in check? A. Yes; chiefly by studying their life history and discovering their most vulnerable points and the best period at which to attack them.

*By Mr. Trow:*

Q. What about the plum? A. The curculio is increasing, I believe; but it can be kept in check, undoubtedly, by the process advised by the Ontario Government and the Entomological Society of Ontario. They want constant attention during three weeks in the year, which is all the time they are laying the egg.

Q. Are the cherry trees subject to the same insect? A. Yes.

*By the Chairman:*

Q. Have you found the farmers willing to co-operate with you in your work? A. Yes; my relations with the farmers have been most satisfactory. They have come forward in a manner which shows that they appreciate the value of entomological studies.

The committee adjourned.