

always located on the farm. In the case of Fredericton, for instance, it is down in the city; at Agassiz it is located on the farm. The work is not confined to any one province, but is done all over the Dominion, wherever you find insect pests.

Mr. GARLAND (Bow River): What was the nature of the work done in connection with the University of Saskatchewan? I think about \$17,000 was spent there.

Mr. MOTHERWELL: That was in connection with fungus diseases. At the University of Saskatchewan it was the rust proposition.

Mr. GARLAND (Bow River): How much was spent in each province last year on the administration of this act?

Mr. MOTHERWELL: I have not the figures on the basis of provinces, but on the basis of the work done by the laboratories, which are made the centre of the operations.

Mr. GARLAND (Bow River): Then let the minister give the total amount spent in each laboratory in the different sections of the country, so we can discover whether the act has been administered properly, and whether this amount is necessary.

Mr. MOTHERWELL: I have not the totals here, but I will try and get them for my hon. friend during the dinner hour.

Mr. MacKELVIE: Can the minister tell us what has been done in the direction of eradicating the codling moth in British Columbia?

Mr. MOTHERWELL: That is a rather persistent disease. It affects our apple orchards, and it requires eternal vigilance to prevent the spread of the infection. A good deal can be done by the fumigation of empty cars that have brought up American fruit from the south, and every precaution is taken in that direction, as well as certain treatments in the orchards. But it is a very persistent pest, like some of our weed pests. I do not know whether we will ever get rid of it, but by keeping close watch on it we can curtail its ravages. The thing is to localize it; to exterminate it, is not an easy matter. I have here a memorandum on the codling moth, as follows:

Originally a native of southeastern Europe, the codling moth has now become nearly cosmopolitan. Early records in Ontario indicate that this insect was present in destructive numbers in 1868, so it must have been in the province many years before that time. At present it is particularly destructive in eastern Canada, with limited infested areas in British Columbia. It is recorded as causing an annual loss in Ontario of about \$2,000,000. The adult moth lays its

[Mr. Motherwell.]

eggs on the leaves and the caterpillars on hatching enter the young apples usually at the calyx end. The remedy is to spray the trees with an arsenical mixture such as lead arsenate at definite periods, the first application to be made when 75 per cent of the petals have fallen.

That is, just after the blossoming period. I do not know what would happen if we did not keep after this pest.

Mr. MacKELVIE: Has there been any decrease in the infested area during the past year?

Mr. MOTHERWELL: I fear not; it is holding its own. If we want to eliminate it more rapidly we would have to increase our staff, I presume, and we have limitations in that respect.

Mr. FANSHER: Does the minister consider the European corn borer a very destructive pest, and if so, how destructive?

Mr. MOTHERWELL: It is destructive in this way; it honeycombs the stalks to such an extent that they fall over in the wind, and that makes it very difficult for the binder to cut them. I have not been down here long enough to say just how much it interferes with the crop, but the stalks I have examined would be perforated all the way up with little holes about the size of a darning needle, and would blow over in the wind, making it very difficult for the binder to cut them. The hon. member for Welland, as well as others informed me during the first of the session that the farmers in Essex county are beginning to handle this pest in such a way that they are ceasing to be alarmed about it; they can control it, and it is not nearly such a terror to them as it was when it first visited the country. They are doing that by local methods.

Mr. FANSHER: How destructive is the corn borer in the country from which it comes?

Mr. MOTHERWELL: I understand that in the country of its origin it has a parasitic enemy which limits the extent of its depredation. Without that enemy its ravages become pretty extensive and pretty rapid.

Mr. FANSHER: Why is the parasite not brought here?

Mr. MOTHERWELL: We are introducing it artificially just as we are doing with the parasites of other pests, and as we are doing in connection with the spruce budworm.

Mr. MacLEAN (Prince): I understand that under regulations that came into force in