

moderately deep trenches into which the army worm would fall when travelling across the ground—a mechanical method of fighting the pest. These suggestions on the part of the department have been found very helpful. We have also done excellent work in connection with the testing of various insecticides. As I have pointed out, the results in connection with the grasshopper work have been very satisfactory. It is estimated by the department that we have saved the farmers over \$400,000 during the past season by suggesting cheaper remedies that were just as efficient as those that were used the year before. We are also carrying on inspection of nursery stock. We have fumigating plants at various points throughout the country—Vancouver; North Portal, Saskatchewan; Winnipeg; Windsor, Ontario; Niagara Falls; St. John, New Brunswick, and St. Johns, Quebec. All nursery stock coming from the United States must pass through these ports and is thoroughly fumigated before being released, our object being to prevent the introduction of the San Jose scale from the United States.

In connection with the botanical side, we are studying roots, vegetables and grains which are subject to the attacks of various fungi, and are disseminating such information in that regard as we are able to obtain from time to time. With regard to the increase of \$10,000 this year, it is required to meet the re-classification, to provide for additional travelling expenses, additional expenses at our laboratories throughout the country, and also to carry on the corn borer work—of course, we cannot tell ahead of time how much this work will cost. The increase is necessary also to cover any emergency that may arise during the coming year.

We have been doing excellent work in combatting the cabbage maggot and the rose midge. All who are interested in agriculture know what a considerable amount of damage is done by the cabbage maggot. Shortly after the cabbage is planted it wilts and falls over, the result of the work of a little maggot which attacks the root, cuts off the stalk and ultimately destroys the plant. We handle that pest successfully by using a one to one-thousand solution of bichloride of mercury, or common corrosive sublimate. We estimate that we have saved the cabbage growers and rose growers of Canada during the past year over \$100,000 by suggesting these remedies. We have also done good work in experimenting with and then advocating the use of dust applications to overcome

these parasites, instead of the ordinary old-fashioned sprays. The dust applications are more efficient and cost less.

Mr. ROBB: Did I understand the minister to say that in certain sections of country where they were purchasing bran for mixing, to be used in the destruction of grasshoppers, the bran contained a very large percentage of sawdust?

Mr. TOLMIE: No, I said that by experiment we had discovered that we could fool the grasshoppers by substituting fifty per cent. sawdust, making a substantial saving.

Mr. GOULD: This question has been one of particular interest to the people of my district since 1918. In that year the southern part of the district was invaded by grasshoppers and for miles from the international boundary the crop was totally destroyed. Just about that time the Winnipeg strike was on, and we were therefore unable to secure supplies of arsenate of lead and Paris green for the purpose of destroying or preventing the spread of these insects which were coming into the district from North Dakota. We also found when we began to seek ways and means of combatting this evil that our departments in Canada were not as well advised of the necessary measures to adopt as were the experimental farms in North Dakota. As a matter of fact, two weeks before the information reached us from our own Department of Agriculture we got from the state of North Dakota and put into application the method of distribution of poisoned feeds over the affected areas. That is one reason why we are interested in seeing that means are provided whereby our scientific research department here may be able to carry on its work and find out the means of fighting these pests which attack our crops in the West. I myself am particularly interested because I have been affected to the extent of the loss of some thousands of dollars during the last three years. I have, however, much praise for our department on account of the hearty cooperation they gave the provincial authorities last year in combatting these evils. The increase of \$10,000 in the Estimates this year should be commended by the committee. I brought this question up a few nights ago because I thought that the sum of \$8,000 in the preceding item meant an increase in salaries for those who were devoting their time to research matters. I support the view that the policy of the Government should be one of retrenchment; yet after listening to the frequent declara-

[Mr. Tolmie.]