

Mr. WEIR (Melfort): That comes not under the vote under discussion but under the entomology vote passed the last night we were in committee. Continuous studies are being made of the habits of various insects and it is only by such study that means of combating their spread and preventing constant damage can be evolved. There were men in the field practically all last summer, or at least during the period it was necessary for them to be there studying the life habits of those insects. From their observation and the knowledge gained, invaluable information will be given to the provincial authorities who, under the direction to a certain extent of our entomological specialists, will take all steps to avoid the damage which is anticipated this year.

Mr. WEIR (Macdonald): I realize that the item for the Destructive Insect and Pest Act was passed the other night, but this is really experimental work. Since that vote was passed, I have noticed a dispatch sent out from Ottawa with respect to the grasshopper situation in Manitoba. I have had two or three questions asked me by people in my constituency regarding this matter. The article before me is dated at Ottawa, and I suppose it came from the Department of Agriculture. It is as follows:

Ottawa, Feb. 28.—The prairie provinces are facing invasion. In Manitoba, particularly, will the brunt of battle be felt this summer. The enemy forces in that province alone will number at least 4,356,000,000,000. To combat that force "munition factories" in Manitoba are working day and night and a conference between provincial and federal strategists will be held in Winnipeg, on March 2, when the most intensive plan of campaign ever drawn up in Canada will be decided, it was announced by the Department of Agriculture Monday.

The enemy? Just the humble but destructive grasshopper. The munitions? Technically they are known as "bait," a combination of "half and half" sawdust, bran and sodium arsenite. The conference? Leading entomologists headed by Norman Criddle.

The war will be waged against a new army but it really is but a continuance of battles which have been carried on for some years against the pest. Last year the invaders claimed 20,000 acres of grain crops but the defenders protected and saved 1,000,000 acres through their preventive measures.

This year Manitoba is preparing for one of its worst invasions in certain areas. It will cost the province in the neighbourhood of \$150,000 to wage a battle in an infested area estimated at 1,000,000 acres.

Incidentally the introduction of sawdust in the bait is a Canadian discovery which saved \$40,000 last year and which is now accepted in all parts of the continent.

A word about the enemy. One grasshopper lays about 200 eggs at a time, repeating the process four or five times during the season. The eggs are sheltered in "pockets" which con-

[Mr. W. G. Weir.]

tain from 20 to 65 eggs each and it is estimated that from 100 to 100,000 eggs per square foot will be found over the infested area. It takes a grasshopper about 40 days to mature during which time it changes its coat five times before sprouting wings. Another month or two completes its life span unless it falls prey to the bait. Last year 140 bushels of grasshoppers were killed by this bait to one acre.

To provide the bait, 70 machines are in operation in Manitoba which turn out 100 pounds of bait every five minutes. Some are in operation day and night.

This report comes from Ottawa. I know that the province of Manitoba is expecting to spend \$150,000, and local people are working day and night on their machines to save their crops. The question I should like to ask is: How much does the Dominion government pay towards such a campaign?

Mr. WEIR (Melfort): Nothing, so far as the material is concerned.

Mr. WEIR (Macdonald): What does the Dominion government really contribute? I think the minister must realize that the grasshopper invasion is really a calamity to the area affected, and my submission is that the dominion should come in and play a greater part than they do at the present time. This year I am afraid it will be far beyond the ability of the province or the municipalities to deal with the area which will be affected.

Mr. WEIR (Melfort): I think the hon. member will agree, that when he suggests the dominion is not making a contribution he has lost sight of the fact that it is perhaps making the greatest contribution, because were it not for the specialists from the entomological branch who have made such a thorough study in the laboratories and fields and are able beforehand to advise provincial government authorities of the danger, the location of it, when to expect it and its extent, those provincial authorities would be powerless. The policy which has been adopted for some time, and which in my view is a fair one, is that that is our contribution, but that the responsibility of supplying material and the necessary workers to do the actual labour is that of the province and the municipalities.

Mr. WEIR (Macdonald): I appreciate what the minister has said. I know of the very good work that Norman Criddle of Treesbank, Manitoba, is doing, because that gentleman happens to be in my constituency. I know he is cooperating with the provincial Department of Agriculture. Probably the minister can defend his position by saying that the dominion department is attempting to do scientific work. I submit, however, that when