

Q. I suppose dozens of trees in our district have been affected by them?—A. I wrote to a gentleman whose name was given me in Windsor, and asked him particularly for all information possible as to the extent of the injury, but I got no reply.

Q. About a foot in diameter is the size of a 15 or 20 year old tree?—A. There is nothing can be done except painting with an alkaline wash in the spring—the time the beetles occur so as to prevent the females from laying their eggs.

Q. The same wash you spoke of?—A. Yes; soft soap and soda.

Q. We put in a little coal oil?—A. I do not think that would have much effect. If you made any addition at all I think carbolic acid would be better. I say that coal oil would not have much effect for this reason: Where I have tried the ordinary kerosene emulsion for the peach bark-borer it had not the effect of keeping it away. The effect only lasted for a little while, the odour of the coal oil, seemingly, soon disappearing.

Q. I used a syringe to the hole?—A. Where you can find the hole you can get at it in that way. But that hole is merely where one insect has come out, and while you are syringing that, hundreds of other borers may be at work and you could not get at them. With apple borers you can detect their presence owing to the thinner bark of a young apple tree, but with this other borer you cannot see what is going on, owing to the thick, rough bark of the maple tree.

GRASSHOPPERS.

By Mr. Semple:

Q. Can you recommend anything to be done to check the grasshoppers which are doing a great deal of injury in Western Ontario?—A. We can adopt the methods which are pursued in the Western States where the grasshoppers occur every year. In Ontario we have not often had serious occurrences of grasshoppers year after year such as occur regularly in the Western States. Where we have them it will certainly pay us to follow the plan which they have in the West, and that is to make hopper-doers. These are light pans, containing at the bottom a coating of sticky material. These hopper-doers or pans are drawn over the fields before the young grasshoppers get their wings and gather them up by the bushful. The pans are very light and can be drawn over the field quickly by a single horse. In the States of Dakota and Minnesota they have to adopt this method of drawing pans or hopper-doers over their fields nearly every year, and they destroy the grasshoppers there by the thousands of bushels. In that way, only, have they protected their crops. On Sable Island, during the past summer, the injury was so severe that the government had, last autumn, to buy large quantities of hay—a thing they had never had to do before—on account of the grasshoppers having eaten all the vegetation, and particularly all the hay upon which the wild ponies would have subsisted during the winter. They had to buy, I think, 50 tons of hay to feed these animals during this winter. That is mentioned in my report for 1895, with a diagram of a hopper-doer. The only method of preventing grasshoppers is to take action early in the spring, say at the end of May, just at the time when the grass is beginning to shoot up, and the young ones first appear. You will then see large quantities of the young grasshoppers in the grass. The pans of which I have spoken can be drawn over the fields without any injury to the grass, and large numbers of grasshoppers and other insects injurious to grass will be destroyed. In vineyards and gardens such a method is not practicable. You can only poison them there with active poisons in the same way as you do other insects which bite their food. There is a mixture of bran and Paris green with sugar which has been used satisfactorily in vineyards in California. It is claimed the grasshoppers will eat it in preference to vegetation. The same remedy can be applied with more or less success in the case of the cut worm.

EXPERIMENTAL APIARY AT CENTRAL FARM.

At the request of the Chairman, I have brought with me to-day some honey produced at the Central Experimental Farm. The work carried on in the apiary has been done almost entirely by Mr. John Fixter, the Farm foreman, and it has been very satisfactory. He has carried out certain suggestions that I made, and that were made also by Mr. Holtermann, of Brantford, who has helped us in this work.