

PART I.

BRITISH COLUMBIA ENTOMOLOGICAL
SOCIETY

SECOND MIDSUMMER MEETING, 1914



THE second midsummer meeting of the British Columbia Entomological Society was held at Kelowna, B.C., on August 20th, 1914. The First Vice-President, Mr. Lionel E. Taylor, was in the chair.

Mr. Taylor: If the meeting will now come to order, we will begin the business of the day. It gives me a great deal of pleasure to welcome you to-day to the Kelowna District, and I hope the fruit-growers of the district in general will profit from the discussions that I am sure will follow each of the papers on the programme before us. I have been requested to give an outline on the problems, entomological and pathological, that require solution in our orchards at the present time.

Mr. Taylor then proceeded to address the meeting on the lines he would suggest as liable to render the most aid to the fruit-grower in his locality. He dwelt on some of the problems of the plant pathologist that require solution, in particular referring to the diseases known as pear-wilt, water-core, fruit-pit, and other conditions directly and indirectly resultant from irrigated conditions affecting fruit-trees. He also touched on the insect troubles of obscure origin, mentioning the blight-carrying proclivities of insects, the apple-blotch mite, tarnished plant-bug, tree-cricket, and locusts. Mr. Taylor also mentioned the methods that would appeal to him in instructing the fruit-grower as to his insect and fungous troubles, and condemned the principle of short daily meetings, and advocated meetings more of the short-course nature. He also suggested that a chart be drawn up and circulated among the fruit-growers showing the sporing periods of fungous diseases and the hatching periods of insects.

Mr. J. W. Eastham: In regard to Mr. Taylor's suggestion that fruit-growers be advised as to dates of spraying, it is needless to say that the time to apply depends on the condition of the crop plant at the time, and this in a large measure determines the date in a locality. Take, for instance, the peach-leaf curl. We say spray before bud-scales are open, and this necessarily depends on the season. Given a very early season, growers may not be prepared. To give the farmer dates of sporing of his fungous diseases would be useful, no doubt, but it is not a main consideration. It would be a poor guide and growers might be misled. In regard to the more obscure troubles of the orchard, the blotching of apples is caused, according to Mr. Brittain, last year, by a species of mite. We have not found this mite this year, although the same conditions are noted. Lime-sulphur as a control does not work as well as might be supposed or hoped. The Kootenays have the same condition. As regards the disease termed "pear-wilt," we have no opinion to offer. It is a new condition to me. We hope to work on it this coming year. Fruit-pit and water-core are physiological diseases and control is difficult. It might be interesting for you to hear that watered core can be restored to normal condition, provided the water has not reached the seed-cavities. Apples may be picked and stored and the water absorbed.

Mr. Treherne: In regard to the point raised as how to assist the farmer in his troubles, I need hardly say that it is one of the prime objects of the meetings of this Society in the summer-time to work with and help the fruit-grower to the best of our ability. It is a disappointment that more do not come to these meetings if there are complaints as to instructional work. We are trying to develop our own literature, especially relative to our local conditions, but this takes time, and we are a young Society and entomology in the Province is young. There is plenty of literature from outside sources which approximate our conditions, and those insects which are to-day causing most loss in this valley are already well studied. We have several, however, which are peculiar to this country which require study, but study of this kind necessarily takes time for sound results.

Mr. Hereron: What we need is compulsory spraying. All fruit-growers should spray. Mr. Treherne is quite right; available literature is to be had.

Mr. Crease: Occasionally we have sudden outbreaks to meet which require special treatment on the spur of the moment. We cannot always foretell outbreaks. Many of you know we have had a great deal of trouble with grasshoppers, especially in the Glenmore orchards. The ranges have dried up and the insects are undoubtedly hungry. I can inform you that Bordeaux mixture 4-4-50 will control grasshoppers absolutely.

Mr. Cunningham: I have been impressed with the points raised. One point in particular should be carefully considered. Why are we not succeeding better in the matter of the control of our orchard troubles? In the early history of this Province fruit-growers had to work out their own troubles and conducted their own business. Farmers' institutes now do the work, and the fruit-growers have become dependent. Poultry, live stock, etc., are all mixed up, instead of settling on horticulture and giving all our efforts to horticulture. I hope we will be able to draw a distinction between fruit-grower and farmer; there is a difference. Mr. Crease is quite right about the grasshoppers and deterrents. Arsenicals are not so good. Heavy rolling of adjacent lands in spring will destroy grasshoppers. In regard to the pathological diseases, irrigation has a most direct bearing.

Mr. Tom Wilson: Grasshoppers this year are a burden. In the Similkameen country the crops are eaten off. Patches of cabbages, etc., are being protected by trapping. This has given good results, for when in numbers many are killed. They are appearing in clouds and clover lands are bare. All this is due to climatic reasons and drought. I have also noted that many trees around Armstrong and Enderby have had their twigs injured. It is a mechanical injury.

Mr. Taylor: Rolling grass for grasshoppers is good. Locusts in South Africa are destroyed that way. When eggs are observed being laid in the soil a report is sent to the Bureau of Agriculture, where a map is being kept showing every farm where eggs have been laid. These eggs will hatch out next year after a rain. Weather reports are kept, and as rain falls men are sent out to get the locusts. The locusts advance in millions, and the men go ahead of the horde with a water-cart and spray a width with arsenite of soda and sugar. All are killed. The locusts are gathered for poultry-feed or are made into flour for food by the Kafirs. As regards farmers institutes, it is my conviction that they are of little value. They may be good lecturers, but the time is too short and the average farmer has no knowledge to take all issues in. Take, for instance, a lecture on fertilizers. Unless one knows chemistry the lectures are of little avail. I advocate short courses for fruit-growers. Even if you only get six to ten men interested, they would impart information and the locality would be helped.

I would like to say, before closing the discussion, that previous to the meeting I met the Hon. Price Ellison, and he wishes me to convey to you all his best wishes for your success, as he is entirely in favour and appreciates the value of our work as a Society. (Applause.)

I will now call on Mr. Ruhman to present his paper. Mr. Ruhman has been appointed assistant to Mr. Eastham in the Pathological Laboratory at Vernon.