

FIFTY YEARS OF PLANT QUARANTINE LEGISLATION AND ACTIVITIES IN B.C.

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Agriculture means so much to Canada today that any regulatory measures that will provide added protection against foreign pests and diseases are readily complied with by the importing public. But I can remember the time when these import restrictions were not accepted with the same good grace, and a quarantine officer was apt to become as popular as a skunk in a parlor if his middle name was not "Diplomacy." The people of British Columbia should be very grateful to those early quarantine workers who, even at the risk of this unpopularity, had vision enough to establish rules and regulations for this purpose and, as this is a Jubilee meeting commemorating history and progress of our Society in all its various phases, it would seem appropriate that we remember them in these records.

In 1893 the Government of the Province of British Columbia passed what was known as the "Horticultural Board Act." Members of this Board were the Hon. J. H. Turner, Minister of Agriculture; Jas. R. Anderson, Deputy Minister of Agriculture; R. M. Palmer, Thomas Cunningham, and Thomas G. Earle. Many of you will remember some of these men and their sterling qualities.

At a meeting of this Board held December 7 of that year R. M. Palmer was recommended for the position of inspector of fruit pests and, in the following year, he assumed the office and held this position until 1902, when Thomas Cunningham succeeded him. Cunningham was the inspector of fruit pests until March, 1916, when W. H. Lyne assumed charge and was responsible for this work from then until July 31, 1933, at which time all plant quarantine activities then supervised by the Provincial Department of

Agriculture were transferred to the Division of Plant Protection, Dominion Department of Agriculture. This, then, is the record of those early appointments. In 1894 rules and regulations made and published under the authority of Section 7 of the Horticultural Board Act constituted the first provision for the inspection and treatment of imported nursery stock and horticultural plant products.

Plant quarantine rules and regulations have undergone many revisions since that time. This was to be expected. The international picture of pest and disease problems is more readily available today. International conferences held over the years have brought about a better understanding of the quarantine regulations and requirements of the various countries with general co-operation resulting.

ACTIVITIES

There has not been much change over the years in the principle of plant quarantines in Canada, but the scope of such activities has naturally been broadened to meet the new problems as they arise. In the early years of plant quarantine work in British Columbia most of the activities were tuned to cover the inspection and certification of imported plants and plant products, but Canada today is an exporting country as well and, naturally, the protection of our foreign trade in horticultural and other agricultural products is just as important as the protection of Canadian agriculture from foreign pests and diseases.

Many of our members are conversant with the work of this Division but, for the benefit of our visitors, the following might be recorded as some of the activities carried out in British Columbia:—

1. *Imports of plants.* I have not the figures of some of the early years covering the amount of imports in this

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connection, but the growth in this trade has expanded with the growth of Canada's population and improved standard of living. This year (1950-51) over 9,000,000 plants were imported into British Columbia. During the examination of this nursery stock some 33,000 plants were intercepted and treated or destroyed on account of pests or diseases.

2. *Inspection of passengers' baggage.* This activity applies mainly to the examination of the baggage of passengers arriving via ship and airliner. It will not be surprising to learn that the greater number of passengers are now travelling via air and that we have lost some of our palatial ships which used to ply between the Orient and Vancouver, as well as "down under."

3. *Introduction of live insects, plant disease organisms, etc.* This is a phase of our work which needs watching very closely, for live insects as a whole are not permitted entry unless for special scientific reasons. Most of this is for investigational and experimental purposes, and it covers not only all stages of insect life, but bacterial and fungus cultures as well. Import permits from this Division are required, and all importations are screened by collaborators.

4. *Imports of plant products.* This type of work is made much easier now due to the fact that by the use of fumigants, we are able to safeguard the country from inroads of certain pests that are found on such imports. We know more of insecticidal gases today, and their effects on various plant products. Stored product inspections and related investigations are carried on by this Division.

5. *Export of plants and plant products.* You will not be interested in figures on export of plants and plant products, but it will be sufficient to say that this work is gradually growing. Canada, as an exporting country, is finding a market in foreign lands and all exports of this type must be certified to comply with regulations of the

importing countries. Previous to the war, 209 countries and their protectorates required certification, and it will be interesting for you to know that there were 84 different types of certificates to be made out to meet stipulated requirements of these countries.

6. *Bulb certification in British Columbia* is a new feature to our general work. The British Columbia Bulb Growers' Federation asked for an inspection service to cover the production of tulips, narcissi, iris, and hyacinths, which service has been provided since 1949.

7. *Ship inspection.* In line with the promotion of Canada's exports, all ships' holds which may be carrying grain or cereal products from Canada are examined prior to loading in accordance with regulations under the Destructive Insect and Pest Act and, if necessary, the ship is treated, either by fumigation or spraying. During the past fiscal year 505 ships were examined in Vancouver and New Westminster, of which 71 were fumigated and 54 sprayed. Canada is the only country in the world which provides a special service of this nature.

8. *Field projects.* Oriental fruit moth survey work has been carried on in the Okanagan Valley during the past several years. There is still no record of an outbreak of Oriental fruit moth in this province.

Inspection of fruit has also been a feature of our work. In the Okanagan the San Jose scale has created a condition whereby certification for export to certain countries might be prohibited. The British Columbia Fruit Growers' Association and the Provincial Department of Agriculture contributed financially to an annual survey supervised by this Division.

Finally, there is our general nursery inspection. This is done as an additional check to locate outbreaks of insects or diseases on our home grown stock. Such inspection, however, does not constitute the only basis of our certification work for the export of

such products. Each consignment is examined when exported, but those early examinations of our nurseries do give us a lead on some of the problems that we might expect.

9. *Seed potato certification.* The only officially recognized seed potatoes in

Canada are those duly certified from crops examined by inspectors of the Division of Plant Protection. In British Columbia, which ranks third in production by provinces, the work is carried out under the direction of H. S. MacLeod.

THE 1951 STATUS OF OUR KNOWLEDGE OF THE INSECTS OF BRITISH COLUMBIA

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When putting in a plea several years ago for further collecting to be done in all Orders in this Province, I outlined before this Society, an approximate estimate of the numbers of species recorded up to that time. It seems in order now to take stock again and to record as far as one can, what half a century's collecting has produced in this Province which contains a larger and more varied insect fauna than any other part of Canada.

There are three ways in which fairly correct estimates can be made of the known British Columbian insects:—(1) by searching all published records, (2) by working over the material in the Canadian National collection, where material collected by officers in British Columbia of the Division of Entomology has been sent for many years and (3) by arranging, identifying and listing, collections now existing in this Province.

In the list of references, I have assembled all records of collections, but until an Entomologist is sent from this Province to spend many months going over the National collection and noting all British Columbia records, it will be many years before the lists can be compiled from that source. In the case of even one genus or even one family, one of the systematists at Ottawa might have time to write out the records, but to get these records in all Orders, would be a great task.

The best that I can do at this time, is to go down the list of Orders and

to indicate what effort has been put on each one.

THYSANURA. Bristle-tails. Our indigenous fauna has distinctly separated, coastal and dry belt species which do not overlap. In all, I had some seven species which were sent to Dr. Silvestri at Portici, Italy, before the second world war. Correspondence before, during and after the war, failed to get identifications and now that that great man is dead, collections of Thysanura will have to be made all over again and submitted to some other authority.

APTERA. The order is represented by at least one species of native Campodeidae, not uncommon in forest duff and leaf mould in the vicinity of Vancouver and by possibly two species of Japygidae, a dry land form recorded by Saunders from Victoria in 1946 (*Evalljapyx sonorannus* Silv. 1911, previously recorded from Tucson, Ariz.), and another which occurs in rich garden soils around Queen Charlotte City. Mr. R. Guppy recently sent me one specimen from Wellington, Vancouver Island.

The **COLLEMBOLA** are practically untouched and sadly need attention. The only records are of those collected by J. D. Gregson from the Kamloops region and some of my own collecting at the Coast, whose list and identifications of 16 species were published in our Proceedings 44, 1948.

The **ORTHOPTERA** sens. lat. has been well studied and recorded by Ronald Buckell. There are probably between 110 and 120 species in the Province of which extensive series are placed in the National collection, the Provincial Museum at Victoria and in the Dominion Laboratory in Kamloops. About 80 species are in the University collections. An insect that needs further attention is the readily accessible *Grylloblatta* at Kamloops, discovered by Gregson in 1938 and kept in captivity and partly written up by M. G. Campbell. I feel certain that diligent search in the Interior, of talus slopes similar to those at Kamloops where this insect occurs, will reveal a wide distribution of *C. campodeiformis* in the Province