# DOMINION OF CANADA DEPARTMENT OF AGRICULTURE EXPERIMENTAL FARMS

#### DIVISION OF ENTOMOLOGY

#### LEGISLATION IN CANADA TO PREVENT THE INTRODUCTION AND SPREAD OF INSECTS, PESTS AND DISEASES DESTRUCTIVE TO VEGETATION

WITH REGULATIONS REGARDING THE

#### IMPORTATION OF VEGETATION INTO CANADA

BY

#### C. GORDON HEWITT, D.Sc.

Dominion Entomologist.

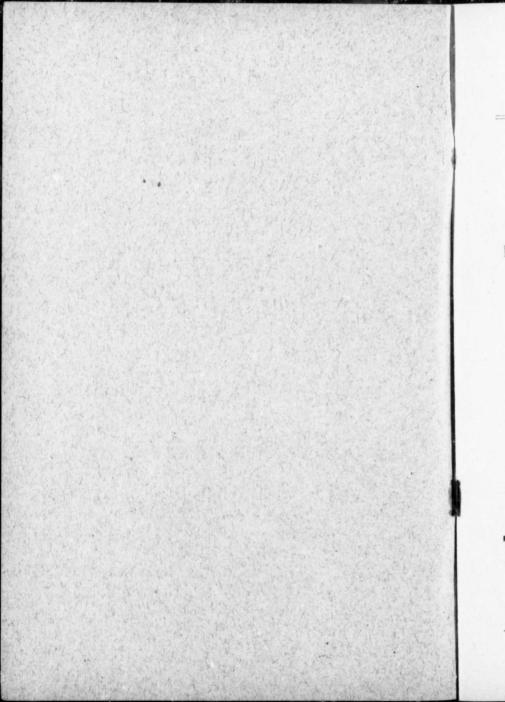
#### BULLETIN No. 12 SECOND SERIES

ENTOMOLOGICAL BULLETIN NO. 6

Bulletins of the Second Series of the Bulletins of the Experimental Farms treat of such subjects as are of interest to a limited class of readers and are mailed only to those to whom the information is likely to be useful.

Published by authority of Hon. MARTIN BURRELL, Minister of Agriculture, Ottawa, Ont.

OTTAWA GOVERNMENT PRINTING BUREAU 1912



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#### DIVISION OF ENTOMOLOGY

Dominion Entomologist	C. GORDON HEWITT, D.Sc.
Chief Assistant Entomologist	ARTHUR GIBSON.
Assistant Entomologist for Forest Insects	J. M. SWAINE, M.Sc., B.S.A.
Assistant Entomologist for Apiculture	F. W. L. SLADEN.
Field Officers  Inspector of Indian Orchards	R. C. Treuerne, B.S.A. G. E. Sanders, B.S.A. J. D. Tothill, B.S.A. W. A. Ross, B.S.A. G. Beaulieu, B.A., LL.B. C. E. Petch, B.S.A. Tom Wilson.
Secretaries	J. A. LETOURNEAU,
Superintendents of Fumigation Stations	A. K. Leith, Winnipeg, Man. H. E. Goold, St. John, N.B. L. Paradis, St. John's, Que. C. Wright, Windsor, Ont. Geo. Manley, Niagara Falls, Ont.
Laboratory and Apiary Assistant	J. I. BEAULNE.

To the Honourable

The Minister of Agriculture,

Ottawa.

Sir,—I have the honour to submit for your approval, Bulletin No. 12 of the Second Series (and No. 6 of the Division of Entomology) entitled, 'The Destructive Insect and Pest Act and Regulations issued thereunder,' prepared by Dr. C. Gordon Hewitt, Dominion Entomologist.

I have the honour to be, sir,

Your obedient servant,

FRANK T. SHUTT,

Assistant Director, Dominion Experimental Farms.

OTTAWA, October 2, 1912.

#### CONTENTS

	PA	
Introduction		5
Part I.—Dominion Legislation—		
The Destructive Insect and Pest Act		6
Regulations		9
Explanation of Regulations for Importers of trees, plants, etc		11
Instructions to Customs Officers		12
Part II.—Provincial Legislation—		
British Columbia		13
Nova Scotia		25
Ontario		28
Prince Edward Island		33

#### LEGISLATION IN CANADA

TO PREVENT THE INTRODUCTION AND SPREAD OF

### INSECTS, PESTS AND DISEASES DESTRUCTIVE TO VEGETATION.

WITH REGULATIONS REGARDING THE IMPORTATION OF VEGETATION INTO CANADA.

#### INTRODUCTION.

The purpose of the bulletin is to give in a collected form the legislation which has been enacted by the Dominion and certain of the provincial governments of Canada, and is now in force, to prevent the introduction and spread of insects, pests

and diseases destructive to vegetation.

As certain of the regulations issued under the Dominion Act and under the Act of the Province of British Columbia govern the importation of vegetation into Canada, it is necessary for all who are in any way concerned with the importation into Canada of trees, plants, fruit or other forms of vegetation, to make themselves thoroughly familiar with the regulations governing the importation of such vegetation (see pages 7, 9 and 16), lest they should find that by not complying with these regulations they have rendered themselves liable to conviction for such contravention, and that the entry of their imports of plants and trees, etc., into Canada is prohibited. It is also important that persons or firms engaged in shipping various kinds of vegetation into Canada should understand these regulations.

The present bulletin cancels the former bulletin, which contained the Dominion Act and Regulations issued thereunder. (Bull. No. 7, Second Series, and No. 1 of

the Division of Entomology.)

The danger of the introduction of injurious insects, pests and plant diseases is probably greater in Canada than in any other country. This is due to the fact that owing to the rapid development and opening up of the country, a large amount of vegetation of all kinds, such as trees, shrubs, plants, seedlings, &c., is imported into Canada from countries in various parts of the world. All this vegetation, collectively termed 'Nursery stock,' is liable to be infested with insects and other pests and diseases which do not occur in Canada. Introduced in this manner, however, they become established in many instances, and the serious effects of the establishment of introduced insects in a new country are enormously increased by the fact that their chief means of control in the countries to which they are native, namely, their natural parasites and other enemies, are not usually brought with them into new country. In the absence of such natural checks their tendency is to increase abnormally, as many introduced pests are now increasing in the United States and Canada.

In Canada a very large number of introduced insects have already established themselves; in fact, most of our more serious insect pests are not native to Canada but were originally introduced or have migrated hither. In certain instances they have been the cause of very great losses. The San José or Pernicious Scale (Aspidiotus perniciosus Comst.), originally introduced into the United States from Asia, was first recorded in British Columbia about 1894; the Pear Leaf Blister-Mite (Eriophyes pyri Nalepa) was first observed in Nova Scotia in 1887; the Brown-tail Moth, origin-

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ally introduced into the State of Massachusetts about 1890 from Europe, was discovered in Nova Scotia in 1907; the Narcissus fly (Merodon equestris F.), which appears to be native to Europe, has been introduced into British Columbia and Ontario. This list might be continued to a much greater length, indicating the danger to which we are constantly exposed in regard to the introduction and subsequent spread of injurious insects.\*

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While the Dominion legislation is concerned with preventing both the introduction into Canada and the spread within our territories of injurious insects, pests or plant diseases, the legislation of those provinces which have taken steps to control insects, etc., by legislation is, with the exception of British Columbia, concerned mainly with the eradication of pests already within their boundaries. In British Columbia, however, a strict inspection of nursery stock and fruit, &c., entering the province is carried on, as will be shown later.

#### PART I.

#### DOMINION LEGISLATION.

THE DESTRUCTIVE INSECT AND PEST ACT.

The introduction of the San José Scale and the previous experience of its destructive powers in the United States were responsible for the passage of the San José Scale Act in 1898, which prohibited the importation of nursery stock from countries in which the scale occurred. In 1901, however, by an order in council this prohibition was removed, and nursery stock from countries in which the scale occurred was allowed to enter subject to fumigation with hydrocyanic acid gas. Such vegetation was only allowed to enter during certain specified periods of the year and through certain Customs ports of entry where fumigation stations were established. Several classes of nursery stock, such as herbaceous plants, &c., were exempt from fumigation.

Beyond this power to fumigate certain classes of nursery stock at six of the ports of entry, the Dominion government had no authority to take further action with a view to preventing the introduction of other insect pests and the spreading of these or of pests already in Canada. In 1909, winter webs of the Brown-tail Moth were found in shipments of nursery stock from France, and as this insect had already established itself in Nova Scotia, it was important that the Minister of Agriculture should have the necessary powers to prevent the introduction of the pest into those parts of Canada not already infested. Accordingly, in May, 1910, the Destructive Insect and Pest Act was passed, under which regulations could be made providing for the prohibition of entry, fumigation on entry or inspection subsequent to entry, of nursery stock, or defining other conditions under which nursery stock and other vegetation might be introduced into Canada.

Regulations have been passed from time to time by orders in council, in virtue of the provisions of section 3 of the Act, to govern the importation of vegetation which is liable to introduce insect pests or plant diseases.

Regulations were passed by orders in council on May 11 and on July 27, 1910. These regulations were rescinded by regulations passed by order in council on February 27, 1911, to which the following amendments have been made subsequently by orders in Council:—

July 6, 1911. Chestnut Bark Disease (*Diaporthe parasitica*) was scheduled, and the importation into Canada of chestnuts from the United States was prohibited (see Regulation 13½).

<sup>\*</sup>An account of the invasion of insect pests into Canada is given in Bulletin 9 of the second series (Bulletin 4 of the Division of Entomology).

April 19, 1912. The importation of all non-canned fruit, plants or vegetation from the Hawaiian Islands was prohibited on account of the danger of the importation of the Mediterranean Fruit Fly (Ceratitis capitata), which was scheduled (see Regulation 16). Regulations 5 and 9 were amended in consequence of an agreement being made with the Province of British Columbia regarding the inspection and

fumigation of nursery stock imported through the port of Vancouver.

May 6, 1912. Regulations were added making it illegal to dispose of, receive or use for seed purposes potatoes imported from Europe, and compelling purchasers of seed potatoes to obtain certificates that such potatoes had not originated in Europe. These regulations were necessitated by the large importations which were being made of potatoes from Europe where Potato Canker was prevalent; imported diseased potatoes were found by the Dominion Botanist, Mr. H. T. Gussow.\* Regulations 9 to 12 were also amended.

September 6, 1912. The importation of potatoes from Europe was prohibited on account of the proven danger of the importation of potatoes affected with Potato Canker. Accordingly, the regulations established by order in council on May 6, 1912,

were repealed.

Since the work of inspecting imported nursery stock was begun under the Destructive Insect and Pest Act our inspectors have found not only Brown-tail Moth webs on European shipments and Gipsy Moth on European and Japanese shipments, but have also discovered many other living insects on imported stock, all of which indicates that this work has begun none too soon and that the expense incurred in carrying on this work is trifling compared with the actual value of the protection which it insures.

The following is the text of the Destructive Insect and Pest Act, and the regula-

tions issued thereunder:-

#### 9-10 EDWARD VII.

#### Снар. 31.

An Act to Privent the Introduction or Spreading of Insects, Pests and Diseases Destructive to Vegetation.

#### (Assented to May 4, 1910.)

His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

This Act may be cited as The Destructive Insect and Pest Short title.
 Act.

In this Act, unless the context otherwise requires, 'the Min-"Minister" ister' means 'the Minister of Agriculture.'

3. The Governor in Council may make such regulations as are Regulations. deemed expedient to prevent the introduction or admission into Canada, or the spreading therein, of any insect, pest or disease destructive to vegetation.

4. Such regulations may provide,—

(a) for the prohibition generally, or from any particular regulations. country or place, of the introduction or admission into Canada of any vegetable or other matter likely to introduce any such insect, pest or disease;

(b) the terms or conditions upon, and the places at which any such vegetable or other matter may be introduced or admitted into

Canada;

Potato Canker, see Bulletin No. 63, of the Experimental Farms and Farmers Circulars Nos. 1 and 3 of the Division of Botany.

(c) for the treatment and manner of treatment to be given to any vegetation, vegetable matter or premises in order to prevent the spreading of any such insect, pest or disease, and may prescribe whether such treatment shall be given by the owner or by a person appointed for such purpose:

(d) for the destruction of any crop, tree, bush or other vegetation or vegetable matter or containers thereof infested or suspected

to be infested with any such insect, pest or disease;

(e) for the granting of compensation for any such crop, tree. bush or other vegetation or containers thereof so destroyed, such compensation not to exceed two-thirds of the value of the matter destroyed and to be granted only by the Governor in Council upon the recommendation of the Minister:

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(f) for the prohibition of the sale of any vegetable matter

infected with any such insect, pest or disease;

(g) that the occupier of the premises on which is discovered any such insect, pest or disease shall forthwith notify the Minister and shall also send specimens of such insect, pest or disease;

(h) for the confiscation of any vegetable matter and the container thereof, if any, in respect of which a breach of this Act, or any regulation made thereunder, is committed, and generally for any other purpose which may be deemed expedient for carrying out this Act, whether such other regulations are of the kind enumerated in this section or not.

5. The Minister may appoint inspectors and other officers for carrying out this Act and the regulations made thereunder.

2. Such appointments, if not confirmed by the Governor in Council within thirty days of the date thereof, shall lapse and cease to be valid.

6. Any inspector or other officer so appointed may enter any place or premises in which he has reason to believe there exists any such insect, pest or disease, and may take specimens thereof and also of any vegetable matter infested or suspected of being infested therewith.

7. The Minister, upon the report of any inspector setting forth a reasonable belief of the existence of any such insect, pest or disease in any area defined in such report, may prohibit the removal from such area or the movement therein of any vegetation, vegetable or other matter which, in his opinion, is likely to result in the

spread of such insect, pest or disease.

8. Every person who contravenes any provision of this Act, or any regulation made thereunder, shall be liable, upon summary conviction, to a fine not exceeding one hundred dollars, or to imprisonment for a term not exceeding six months, or to both fine and imprisonment. Any vegetable or other matter imported or brought into Canada contrary to this Act, or to any regulation made thereunder, shall be forfeited to the Crown.

9. Every order in council and regulation made under this Act shall be published in The Canada Gazette, and shall be laid, by the Minister, before Parliament within fifteen days after the commence-

ment of the then next session.

10. The San José Scale Act is repealed.

Inspectors and officers.

Confirmation appointment.

Powers of inspectors.

Powers of Minister.

Penalty for contravention of Act and regulations.

Orders and regulations to be published and laid before Parliament. R.S., c. 127 repealed.

#### REGULATIONS UNDER THE DESTRUCTIVE INSECT AND PEST ACT.

1. 'Inspector' means a person appointed for carrying out the provisions of the Destructive Insect and Pest Act and the regulations made thereunder.

2. No tree, plant or other vegetation or vegetable matter infested with any of the insects, pests or diseases to which this Act applies, shall be imported into Canada

except as hereinafter provided.

3. Nursery stock, including all trees, shrubs, plants, vines, grafts, scions, cuttings or buds which are not hereinafter exempted, entering Canada, shall be imported only through the ports and during the periods respectively hereinafter mentioned, that is to say :-

Vancouver, B.C., from October 1 to May 1.

Niagara Falls, Ont., from October 1 to May 15.

Winnipeg, Man., and St. John, N.B., from March 15 to May 15, and from October

7 to December 7.

Windsor, Ont., and St. Johns, P.Q., from March 15 to May 15, and from September 26 to December 7.

At these points of entry the importations shall be fumigated in the fumigation houses provided for that purpose, and a certificate of fumigation will be issued, with out which no stock may be taken out of bond.

Importations by mail shall be subject to the same regulations.

All nursery stock originating in Japan or in any one of the States of Vermont, New Hampshire, Maine, Massachusetts, Connecticut and Rhode Island, six of the United States of America, shall, after fumigation, be subject to inspection as provided by section 6 of these regulations.

Provided, however, that the following vegetation and florists' stock shall be exempt from fumigation and may be imported at any season of the year and through

any port without inspection :-

- (a) Greenhouse grown plants, including roses in foliage which have been grown in pots up to three inches in diameter but not larger. A certificate that the plants have been grown under glass must accompany the invoice and shall be signed by the consignor.
- (b) Herbaceous perennials (the stems of which die down in winter), such as perennial phlox, peonies, sunflowers, &c.
- (c) Herbaceous bedding plants (such as geraniums, verbenas, pansies, &c.)
- (d) Bulbs and tubers (such as hyacinths, lilies, narcissi and other true bulbs, and also the tubers of dahlias, irises, &c.).
- (e) Cottonwood or Necklace Poplar (Populus deltoides) when shipped from and grown in Dakota or Minnesota, two of the United States of America.

4. The port by which it is intended that the nursery stock shall enter shall be clearly stated on each package, and all shipments made in accordance with these regulations will be entirely at the risk of the shippers or consignees the government

assuming no responsibility whatever.

5. All persons importing nursery stock, except such as is exempt from fumigation and inspection under section 3 of the Regulations, shall give notice to the Dominion Entomologist, Central Experimental Farm, Ottawa, within five days of despatching the order for the same. This notice shall include a detailed statement of the nature, quantity and the points of origin and destination of the stock, the name of the consignor and of the consignee, and the name of the transportation company or companies carrying the stock. A second notification shall be sent to the Dominion Entomologist by the importer immediately on the arrival of the stock at its final destination. Notice shall also be given by all transportation companies, custom house brokers and other persons importing or bringing into Canada nursery stock that is subject to inspection, as hereinafter provided, immediately such a consignment is received by them.

This regulation shall not apply to nursery stock imported into the Province of British Columbia by residents of that province.

- 6. Nursery stock, not including such stock as is exempt under section 3 of these regulations, originating in Europe, shall be imported only through the ports and during the periods specified under section 3 for stock requiring fumigation, with the addition of the ports of Halifax, N.S., Sherbrooke, P.Q., and Montreal, P.Q., through which ports such European stock may enter from September 15 to May 15. Such European nursery stock, and such other imported vegetation as the Minister may determine, entering Canada, shall be exempt from fumigation, but shall be inspected, either at the port of entry, or at its destination to which it may be allowed to proceed. but in the latter case it must not be unpacked except in the presence of an inspector.
- 7. If, on inspection, nursery stock or other vegetation or vegetable matter is found to be infested with any of the insects, pests or diseases hereinafter specified, it shall be destroyed to the extent deemed necessary by the inspector and in his presence. All cases, packages and packing in which such stock has been contained shall also be destroyed in the same manner.
- 8. Any inspector entering any lands, nursery or other premises where there is reason to believe that any of the insects, pests or diseases hereinafter specified are or may be present, shall give instructions for the treatment or destruction of any tree. bush, crop or other vegetation or vegetable matter or the containers thereof, which may be found or suspected to be infested with any of the insects, pests or diseases hereinafter specified, and such instructions shall be carried out by the owner or lessee of the infected or suspected vegetation, vegetable matter, or containers thereof, and such remedial treatment shall be carried out and continued until the insect, pest or disease shall be deemed by the inspector to have been exterminated.
- 9. Compensation not exceeding two-thirds of the value as assessed by the inspector, of the vegetation or vegetable matter, or containers thereof, destroyed by the instructions of an inspector, shall be granted by the Governor in Council upon the recommendation of the Minister, except in cases where these regulations are carried out under the direction of the Government of a province not granting compensation, or in the case of potatoes or potato crops.
- 10. It shall be illegal to sell, offer for sale or in any way dispose of or receive any trees, shrubs, or other plants, vegetable matter or portions of the same, if the same are infested with any of the insects, pests or diseases hereinafter specified.
- 11. The owner, occupier or lessee of any premises or place where any of the insects, pests or diseases specified herein shall be found, shall immediately notify the Minister, and shall also send to him specimens of such insects, pests or diseases.
- 12. The destructive insects, pests and diseases to which the said Act shall apply shall include the following:-

The San José Scale (Aspidiotus perniciosus).

The Brown-tail Moth (Euproctis chrysorrhaa). The Woolly Aphis (Schizoneura lanigera).

The West Indian Peach Scale (Aulacaspis pentagona).

The Gypsy Moth (Porthetria dispar).

Potato Canker (Chrysophlyctis endobiotica).

Chestnut Bark disease (Diaporthe parasitica).

Branch or Stem Canker (Nectria ditissima). Gooseberry Mildew (Spharotheca mors-uva).

White Pine Blister Rust (Peridermium strobi).

The Mediterranean Fruit Fly (Ceratitis capitata).

13. The importation of potatoes into Canada from Europe, Newfoundland or the Island of St. Pierre or Miquelon is prohibited.

134. The importation of both chestnut (Castanea dentata) and chinquapin (Castanea pumila) into Canada from the United States is prohibited.

14. The Minister may, upon special request to that effect, authorize the importation into Canada of any insect, pest or disease herein specified, but for scientific purposes only.

15. The regulations made under the San José Scale Act are repealed.

16. The importation of all non-canned fruits, plants or portions of plants, or other vegetation or vegetable matter from the Hawaiian Islands, is prohibited.

#### EXPLANATION OF REGULATIONS FOR PERSONS IMPORTING NURSERY STOCK INTO CANADA.

'Nursery stock' includes trees, shrubs, plants, vines, grafts, scions, cuttings and

buds. (Regulation 3.)

Plants which, at present, are exempt from the importation regulations are:—
Herbaceous perennials, herbaceous bedding plants, bulbs, cottonwood from Dakota and
Minnesota and, when accompanied by a certificate (see Regulation 3, subsection a),
greenhouse plants. No notice of the importation of these exempted classes of stock
is required.

Nursery stock may be imported into Canada during certain seasons of the year

only and through specified ports. (Regulation 3.)

Nursery stock from the following places is inspected:—Europe, Japan, and the States of Vermont, New Hampshire, Maine, Massachusetts, Connecticut and Rhode Island.

All persons, except residents in British Columbia, importing nursery stock from the aforementioned places, that is, stock requiring inspection, must notify the Dominion Entomologist. The notice must give the following details (Regulation 5):

1. Nature of stock; for example: apple seedlings, roses, azaleas, &c.

2.. Quantity. Stating quantity of each kind.

3. Origin. Stating country and place from which the stock is being imported.

 Destination. The final destination in Canada must be given; in the case of firms or nurserymen importing stock for distribution or sale, the premises of the firm or nurseryman is the destination.

5. Name of consignor.

6. Name of consignee.

7. Names of the transportation company or companies carrying the stock.

The sending of this notice need not entail much trouble, as an additional (duplicate or triplicate) copy of the original order can be made at the time of the despatching of the same, and sent, postage free, to the Dominion Entomologist.

When the shipment reaches its destination the importer shall send a second

notice to that effect in order that, if necessary, the inspection may be made.

Transportation companies are also required to send notifications of importations.

The inspection is made either at the port of entry, or at the destination, according to location. (See instructions to customs officers as to treatment of shipments.)

When nursery stock is allowed to proceed to its destination for inspection, it must not be unpacked except in the presence of an inspector, who is sent to inspect the stock immediately notice of its arrival is received by the Dominion Entomologist. (Regulation 6.)

When nursery stock is inspected at the port of entry a certificate of inspection is issued.

Persons importing nursery stock requiring inspection or fumigation should advise the shippers of the dates upon which the fall and spring importation seasons open and close and of the ports of entry through which the stock is to be shipped. (Regulation 3.) If this is not done, inconvenience or loss may be caused by the refusal to admit the stock not arriving within the prescribed periods.

Importers may obtain copies of these regulations to send to shippers on application to the Dominion Entomologist, to whom all inquiries should be addressed. Letters

addressed to the Dominion Entomologist may be mailed 'free.'

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#### INSTRUCTIONS TO CUSTOMS OFFICERS.

The regulations passed under the Destructive Insect and Pest Act have been issued by the Commissioner of Customs of Canada to the collectors of customs under Memoranda Nos. 1589 B and 1678 B (which consolidates Memos. 1621 B, 1638 B, and 1675 B) together with the following instructions:—

Customs officers are requested to notify the Dominion Entomologist, Experimental Farm, Ottawa, of the arrival of shipments of nursery stock requiring inspection from Europe, Japan, and the States of Vermont, New Hampshire, Massachusetts, Connecticut and Rhode Island on the dates on which they are received.

In these regulations the expression 'Minister' refers to the Minister of Agriculture.

Goods imported contrary to the Destructive Insect and Pest Act are to be detained and the collector is to notify the importer to the following effect:—

The prohibited goods, if to be returned, should be exported out of Canada without delay, under manifest (in bond), otherwise they are to be destroyed.

Instead of reporting each case of detention or seizure of articles separately, you will send to this department at the end of each month a statement giving the following information:—

- 1. Date of importation.
- 2. Name and address of importer.
- 3. Description of articles.
- 4. How dealt with and when.

If there have not been any imports detained during the month, no 'Statement' will be required to be sent to the department for such month.

Nursery stock from the following countries and states require inspection:-

Europe, Japan, and the States of Maine, New Hampshire, Vermont, Massachusetts, Connecticut and Rhode Island. (Regulations 3 and 6.) Except greenhousegrown plants and greenhouse-grown roses (accompanied by a certificate), herbaceous perennials, herbaceous bedding plants, bulbs and tubers, and cottonwood grown in Dakota or Minnesota (see Regulation 3), all of which stock is admitted at any time without inspection.

The following are the ports of entry for stock requiring inspection, with periods during which stock may be imported:—

Halifax, N.S.	Sept. 15 to May 15	European stock only.
St. John, N.B.	Mar. 15 to May 15 and	All stock.
	Oct. 7 to Dec. 7	(Fumigation Station.)
Sherbrooke, P.Q.	Sept. 15 to May 15	European stock only.
St. Johns, P.Q.	Mar. 15 to May 15 and	All stock.
	Sept. 26 to Dec. 7	(Fumigation Station.)
Montreal, P.Q.	Sept. 15 to May 15	European stock only.
Niagara Falls, Ont.	Oct. 1 to May 15	All stock.
		(Fumigation Station.)
Windsor, Ont.	Mar. 15 to May 15 and	
	Sept. 26 to Dec. 7	44
Winnipeg, Man.	Mar. 15 to May 15 and	
	Oct. 7 to Dec. 7	44
Vancouver, B.C.	Oct. 1 to May 1	44

Stock requiring inspection is to be treated, after a notification has been sent to the Dominion Entomologist, by customs officers at the different ports as follows:—

Halifax, N.S.—Shipments arriving at this port to be allowed to proceed to destination, excepting small shipments for distant points in Nova Scotia, which are to be held for inspection at Halifax.

St. John, N.B.—Shipments for New Brunswick, Quebec (excluding Montreal and distinct), northern points in Ontario and east of Winnipeg to be held for inspection at St. John. Shipments for Nova Scotia, Montreal and district, Ontario, south of Ottawa and the Georgian Bay and points west of Winnipeg to be allowed to proceed 'in bond' for inspection.

Sherbrooke, P.Q.—Shipments to be held for inspection.

St. Johns, P.Q.—Shipments to be held for inspection, unless destined for Montreal, where they should be entered subject to inspection at that port.

Montreal, P.Q.—Shipments for points within the district of Montreal to be allowed to proceed for inspection at destination; shipments for points outside the district of Montreal to be held for inspection.

Niagara Falls, Ont., and Windsor, Ont.—Shipments to be allowed to proceed for inspection at destination.

Winnipeg, Man., and Vancouver, B.C.—Shipments to be held for inspection by officers in charge of Fumigation Station.

#### PART II.

#### PROVINCIAL LEGISLATION.

In addition to the legislation of the Dominion Government against insect pests and plant diseases, several of the provincial governments have enacted legislative measures relating to the control and eradication of insect pests and plant diseases in their respective territories. With the exception of the Province of British Columbia and Nova Scotia, the provincial governments restrict their attention to the control of pests within their territories, and their activities are, at present, almost solely intra-provincial. The Provinces of British Columbia and Nova Scotia, however, inspect and fumigate if necessary, nursery stock and fruit, &c., imported into the province. The Province of Nova Scotia fumigates and inspects stock coming from other parts of Canada only.

#### BRITISH COLUMBIA.

As early as 1892 the Province of British Columbia passed a *Horticultural Board Act*, creating a board which had powers to pass regulations for the purpose of preventing the introduction and spread of injurious insects or plant diseases. This Act was consolidated in 1911 with other provincial Acts of an agricultural character under the *Agricultural Associations Act*, of which sections 54 to 57 relate to the prevention of the introduction and spread of insect pests and plant diseases.

Under section 55 of the Agricultural Associations Act, regulations governing the importation of nursery stock, fruit and other vegetation, and empowering the provincial authorities to take steps to control and eradicate insect pests and plant diseases.

have been passed and are given below.

Owing to the fact that these regulations give to the Provincial Department of Agriculture similar powers to those which the Dominion regulations give the Dominion Department of Agriculture, there existed a possibility of duplicating the work of inspection and fumigation of nursery stock imported into Canada via the port of Vancouver; in fact, unnecessary duplication had taken place. Accordingly, on April 18, 1912, an agreement was made whereby the carrying out of the Dominion regulations is entrusted to the Provincial Department of Agriculture in so far as nursery

stock entering Canada via Vancouver and requiring fumigation or inspection is concerned. The fumigation and inspection of nursery stock imported into Canada via Vancouver is now carried out under the direction of the Provincial Inspector of Fruit Pests, as it fulfils the requirements of the regulations under the Destructive Insect and Pest Act. So far as the carrying out of the requirements and regulations of the Dominion Act is concerned, the work is under the supervision of the Dominion Entomologist, and at least one efficer of the Division of Entomology, acting under the instructions of the Dominion Entomologist, assists the Provincial Inspector of Fruit Pests in the work of inspection and fumigation and prepares the necessary reports and returns for the Division of Entomology.

In addition to the work of inspecting and fumigating imported nursery stock, the Provincial Inspector of Fruit Pests, assisted by a staff of inspectors, carries out eradicative measures in the nurseries and orchards throughout the province.

The following gives the sections of the Agricultural Associations Act of British Columbia relating to the Horticultural Board:—

#### AN ACT RESPECTING AGRICULTURAL ASSOCIATIONS

#### (March 1, 1911.)

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:—

#### Short Title.

Short title.

 This Act may be cited as the 'Agricultural Associations Act, 1911.'

#### Interpretation.

Interpretation.

2. In this Act-

- (a) 'Association' shall mean any one of the organizations referred to in sections 3, 4, 5, 6, or 36 of this Act;
- (b) 'Minister' means the Minister of Finance and Agriculture for the Province of British Columbia;
- (c) 'Department' means the Department of Agriculture for the Province of British Columbia.

#### Horticultural Board.

Horticultural Feard created 54. There is hereby created a Provincial Board of Horticulture to advise the Minister regarding matters of interest to the horticultural industry. The Lieutenant-Governor may by Order in Council direct how the Board shall be constituted, and may prescribe the duties and powers of the Board, and generally regulate and direct the members and officers of the Board.

Board to make regulations.

55. (1) For the purpose of preventing the spread of contagious diseases in orchards and gardens and among fruits, fruit-trees, hops, hop-plants, grain, peas, beans, roots, tubers, vegetables and seeds, and for the prevention, treatment, cure and extirpation of fruit pests and the diseases of fruit, fruit-trees, hops, hop-plants, grain, peas, beans, roots, tubers, vegetables and seeds, and for the disinfection of grafts, scions or orchard débris, empty fruit boxes or packages, and other suspected material or transportable articles dangerous to orchards, fruits, fruit-trees, hops, hop-plants, grain, peas, beans, roots, tubers, vegetables and seeds, the Lieutenant Governs.

ernor in Council may make regulations for the inspection and disinfection or destruction thereof, or of non-fruit-bearing trees or shrubs which may carry contagion, and for compelling the owners or caretakers of such orchards, gardens, fruit and fruit-trees to forward to the Minister affidavits proving compliance by them with the regulations in regard to disinfection by spraying, or otherwise as such regulations may prescribe, and also for requiring all cases of contagious diseases or pests as aforesaid to be reported to the Board, which regulations shall be circulated in printed form by the Board among the fruit-growers and fruit-dealers of the province, and shall be published in the British Columbia Gazette and, at the To be circulated discretion of the Board, in papers of general circulation in the and published. province, and shall be posted in three conspicuous places in each district, one of which shall be a court-house therein; and every such regulation, when published in the British Columbia Gazette, Regulations to shall, so far as the same shall not have been in like manner repealed have force of law. or varied, be deemed to be and have the force of law, and be so recognized in all courts in the province.

(2) The power to make regulations for inspection shall include Power to make the power to establish and vary places and quarantine stations where regulations for such inspection shall be carried out, and to make regulations in include regard to the forwarding thereto and detention thereat of articles quarantining.

requiring inspection:-

(a) In and by any such regulations the Lieutenant Governor Fines. in Council may fix and impose any fine or penalty for the enforcement of the provisions thereof, and may fix a scale of fees to be taken for inspection, or other services under the regulations, by officers carrying out the same, from the owners or persons in possession of any premises or property.

(b) All fines and penalties imposed or fees fixed by any such Recovery thereof. regulations may be recovered, with costs, in accordance with the provisions of the 'Summary Convictions Act,' and when collected shall be paid into the Consolidated Revenue Fund. 1894, c. 20, s. 7; 1895, c. 25, s. 3.

56. The Lieutenant Governor in Council shall appoint, from Inspector of Fruit the number of the Board or from without their number, to hold Pests to be office at the pleasure of the Lieutenant Governor in Council, a com. appointed. petent person especially qualified by practical experience in horti-

culture, who shall be known as 'Inspector of Fruit Pests.'

57. Any member of the Board, their inspector or agent, upon Member of Board the complaint of interested parties, or upon his own motion, may or Inspector may inspect, or cause to be inspected, fruit-trees, plants, grafts, scions, inspect. nursery stock of all descriptions, hops, hop-plants, grain, peas, beans, roots, tubers, vegetables and seeds, orchard débris, empty fruit boxes or packages, and other material, orchards, nurs-ries and other places, suspected or believed to be infested with pests, or infected with contagious diseases injurious to trees, plants, fruits, hops, hop-plants, grain, peas, beans, roots, tubers, vegetables and seeds; and for the purposes thereof he shall have full power and authority And may enter to enter in and upon any farm, orchard, nursery or garden, or any premises, etc. barn, warehouse, storehouse, shop or other place or building, and if he shall find that the said fruit-trees, plants, grafts, scions, nursery stock of all description, hops, hop-plants, grain, peas, beans, roots, tubers, vegetables and seeds, orchard débris, empty fruit boxes or

To notify owner of infected premises to be disinfected

packages and other material, orchards, nurseries and other places are infested with pests or affected with contagious diseases injurious to trees, plants or fruits, hops, hop-plants, grain, peas, beans, roots, tubers, vegetables and seeds, as aforesaid, such member or inspector or agent shall notify, in writing, the owner or person having charge of such premises or property, within a time to be prescribed in such notice, to treat and disinfect said premises or property in the Infected property manner prescribed in such notice; and such property shall not be not to be removed removed after the owner or person in charge of the same shall have been notified in writing, as aforesaid, without the written permission of a member of the Board or the inspector; and if the person so notified shall neglect or refuse to treat and disinfect the said

deemed guilty of violation of Act.

Person disobeving premises or property in the manner and within the time prescribed in the said notice, such person shall be deemed guilty of a violation of this Act; and if it appears on the trial that any orchard, trees, nursery, building or any other structures, premises or property in charge of or belonging to the defendant referred to in said notice, or any part of such structures, premises or property, is infested or affected as aforesaid, the court may order whatsoever of the same is so infested or affected to be disinfected or destroyed within a time to be mentioned in said order, or may make any other order that it shall deem fit; and if such order be not obeyed within the time therein specified, it shall be the duty of the Board, or of some member thereof, or of their inspector or agent, to execute such order, and the costs and disbursements of the prosecution shall be adjudged against the party convicted as aforesaid:-

Court may order infected property to be disinfected or destroyed.

If owner unknown or absent, Inspector or member may disinfect at owner's expense.

But not until from Justice.

(a) In case, upon inspection as herein provided, the member of the Board, inspector or agent finds any of the premises to be infested with pests or affected with contagious disease, but is unable to take the proceedings herein provided by reason of there being no person in charge, or either the owner or his whereabouts being unknown, he shall be at liberty to cause the same to be disinfected, and the costs and expenses thereon shall be a lien upon the property, which may be enforced by seizure and sale of a sufficient quantity thereof to satisfy the same: Provided. however, that no property shall be destroyed under this subsection until an order therefor has been obtained from a Justice of the Peace, which order any Justice is hereby authorized to make upon proof of the urgency of the case or of reasonable efforts having been made to ascertain the owner or person who should be in charge of the infected property. 1894, c. 20, s. 9.

Members to be paid travelling expenses.

58. The members of the Board shall receive no remuneration for their services, but shall be paid their actual travelling expenses. 1899, c. 2, s. 8.

Lieut.-Governor in rules.

69. The Lieutenant-Governor in Council may from time to Council may make time make such rules, orders and regulations as may be required for the purpose of effectually carrying out the provisions of this Act: and every such rule, order or regulation shall have the same force and effect as if it had been enacted herein.

Rules and Regulations Made and Published under Authority of Section 55 of the Agricultural Associations Act, 1911.

(January 5, 1911.)

#### TITLE.

These regulations may be cited as the 'Horticultural Board Regulations.'
 'The Board' shall mean the Provincial Board of Horticulture.

#### DEFINITIONS

3. In these regulations the word 'pests' shall mean and include:-Angoumois grain-moth (Sitotroga cerealella, Ol.). Apple aphis (Aphis pomi L.). Black scale (Saissetia olew Bern.). Black peach aphis (Aphis persica-niger Er. Sm.). Brown-tail Moth (Euproctis chrysorrhræa L.). Buffalo tree-hopper (Ceresa bubalus Fab.). Cherry aphis (Myzus cerasi Linn.) Cherry scale (Aspidiotus forbesi Johns.). Codling moth (Carpocapsa pomonella L.). Cottony cushion scale (Icerya purchasi Mask.) Cottony maple scale (Pulvinaria innumerabilis Rathy.). European fruit scale (Aspidiotus ostreæformis Curt.) Fall canker worm (Alsophila pometaria Harr.) Flat headed apple-tree borer (Chrysobothris femorata Fab.). Granary-weevil (Calandra granaria L.). Greedy scale (Aspidiotus rapax (camelliæ) Comst.). Gypsy Moth (Porthetria dispar L.). Hop aphis (Phorodon humuli Schrank). Lesser apple worm (Enarmonia prunivora Walsh). Orange scale (Aonidiella aurantii Mask.). Oyster-shell scale (Lepidosaphes ulmi L.). Peach borer (Sanninoidea exitiosa Say.). Peach twig-moth (Anarsia lineotella Zell.). Purple scale (Lepidosaphes beckii Newm.). Putnam's scale (Aspidiotus ancylus Putn.). -Raspberry root-borer (Bembecia marginata Harr.). San José scale (Aspiodiotus perniciosus Comst.). Sinuate pear-tree borer (Agrilus sinuatus Oliv.). Soft scale (Coccus hesperidum Linn.). Strawberry crown-borer (Tyloderma fragariæ Riley. Strawberry leaf-roller (Ancylis comptana Fröhl.). Tent caterpillar (Malacosoma americana Fab.). Woolly apple aphis (Schizoneura lanigera Hausm.). Yellow mealworm (Tenebrio molitor L.). Mediterranean fruit-fly (Ceratitis capitata). West Indian peach-scale (Aulacaspis pentagona).

And other known injurious Arthropods affecting fruit, grains, and vegetables, and all fungous, bacterial, and other diseases of fruits, grains, and vegetables, including the following:—

Potato-canker (Chrysophlyctis endobiotica).

Parasitic diseases affecting potatoes, externally and internally.

Branch or stem canker (Nectria ditissima).
Gooseberry mildew (Sphwrotheca mors-uvw).

White-pine blister-rust (Peridermium strobi.)

#### NOTIFICATION OF THE PRESENCE OF PESTS.

4. All nurserymen, fruit-growers, and all persons owning, occupying, or managing an orchard, garden or nursery infected with any pest, shall notify the Inspector of Fruit Pests or the Secretary of the Board of the fact that such orchard, garden or nursery is so infected.

#### INSPECTION OF NURSERY STOCK.

5. All importers, agents for importers, or consignees of nursery stock, trees, or plants must give notice to the Inspector of Fruit Pests, upon the arrival of any nursery stock, trees or plants before the removal of such nursery stock, trees or plants other than those specified under clause 6, from any dock, wharf, mole, station or warehouse where such nursery stock, trees or plants have been landed; and if such nursery stock, trees or plants are found to be free from insect pests, fungous and bacterial diseases, the said Inspector of Fruit Pests shall issue a certificate to that effect; and all such nursery stock, trees or plants if found to be infected with any insect pest, fungous or bacterial diseases, shall be either cremated or shipped out of the province. Certified invoices of all shipments of nursery stock, trees and plants must be furnished at the time such shipments are delivered for inspection.

#### INSPECTION OF PALMS AND FIBROUS PLANTS.

6. All palms and fibrous plants grown under glass, accompanied by a certificate to that effect, and consigned to greenhouses in Victoria, Vancouver and New Westminister, may be allowed to proceed to point of destination and be inspected at consignee's premises.

#### INSPECTION OF CONIFERS AND EVERGREENS.

7. All conifers and evergreens consigned to Victoria, Vancouver and New Westminister may be allowed to proceed to point of destination and be inspected at consignee's premises; provided, however, that suitable buildings and facilities are available for efficient inspection.

#### DISINFECTION OF NURSERY STOCK, TREES AND PLANTS.

8. Every person owning or occupying or having in possession any land or orchard with standing trees or shrubs, or having thereon nursery stock or trees and plants of any kind, infected with insect pests, fungous or bacterial diseases, shall cause the same to be disinfected and cleansed by using the remedies herein prescribed, or such other insecticides and fungicides as may be found effective, and are approved by the Provincial Board of Horticulture; and no such inspected nursery stock, trees or plants shall be sold, forwarded, distributed or parted with until cleansed to the satisfaction of the Inspector of Fruit Pests or agent of the Board. Any member of the Board, the Inspector of Fruit Pests, or any agent appointed by the Board, may order the destruction by rooting out and burning or by any other available method, of all infected nursery stock, trees or plants of any kind wherever, after inspection, such destruction, by rooting out and burning, is necessary to prevent the continued existence or spreading of any infection, pest or disease; and if any order made hereunder is not complied with and carried out within the time specified in such order, after a copy of such order has been posted up on or near the land or orchard or premises whereon such order is intended to take effect, any member of the Board, the Inspector of Fruit Pests, or any agent appointed by the Board may, by himself, his agents, servants, and workmen, enter into and upon any land, orchard or premises whereon such order is intended to take effect, and carry such order into effect by any available method, and the cost of such work shall be a charge against the owner or occupier thereof, and no person shall in anywise howsoever hinder or obstruct the carrying into effect of any such order.

#### INSPECTION OF IMPORTED FRUIT.

9. All importers, agents for importers, or consignees of fruit must give notice to the Inspector of Fruit Pests, or any agent appointed by the Board, upon the arrival of any and all shipments of fruit; and all fruit and fruit-packages imported into this province shall be inspected, and if found to be free from insect pests and fungous or bacterial diseases, a clean certificate shall be issued therefor in conformity with the rules and regulations of the Board: Provided, however, that no fruit or fruit-packages imported into this province shall be removed from any dock, wharf, mole or station where such fruit and fruit-packages have been landed before inspection, and such clean certificate thereof shall have been obtained; and all such fruit and fruitpackages as may be found infected with any insect pest, fungous or bacterial diseases, shall be either destroyed by the importers thereof, by such process and within such time as the Inspector of Fruit Pests or any agent appointed by the Board may direct, or shall be reshipped, within such time as the Inspector of Fruit Pests or any agent appointed by the Board may direct, by the importers thereof, to some point without the province: Provided, however, that fruit which has been condemned shall not be transported through the province except for reshipment outside the province. Packages containing infected fruit shall be marked with a distinctive mark or brand at the time of the inspection thereof by the inspecting officer. It shall be an offence against the rules and regulations of the Board of Horticulture to deface or remove such mark or brand.

#### INSPECTION OF HOPS, HOP-PLANTS, &C.

10. All importers, agents for importers, or consignees of hops, hop-plants, &c., must give notice to the Inspector of Fruit Pests, or any agent appointed by the Board, upon the arrival of any and all shipments of hops, hop-plants, &c.; and all hops, hop-plants, &c., imported into this province shall be inspected, and if found to be free from insect pests and fungous or bacterial diseases, a clean certificate shall be issued therefor in conformity with the rules and regulations of the Board: Provided, however, that no hops, hop-plants, &c., imported into this province shall be removed from any dock, wharf, mole or station where such hops, hop-plants, &c., have been landed before inspection, and such clean certificate thereof shall have been obtained; and all such hops, hop-plants, &c., as may be found infected with any insect pest, fungous or bacterial diseases shall be either destroyed by the importers thereof, by such process and within such time as the Inspector of Fruit Pests or any agent appointed by the Board may direct, or shall be reshipped, within such time as the Inspector of Fruit Pests or any agent appointed by the Board may direct, by the importers thereof, to some point without the province: Provided, however, that hops, hop-plants, &c., which have been condemned shall not be transported through the province except for reshipment outside the province. Packages containing infected hops, hop-plants, &c., shall be marked with a distinctive mark or brand at the time of the inspection thereof by the inspecting officer. It shall be an offence against the rules and regulations of the Board of Horticulture to deface or remove such mark or brand.

#### QUARANTINE REGULATIONS.

11. Transportation companies, express companies, wharfingers or warehousemen receiving or conveying nursery stock trees, plants, &c., other than those exempted under clauses 6 and 7, shall in no case deliver or cause to be delivered such nursery

stock, trees, plants, &c., other than those exempted under clauses 6 and 7, or any portion thereof, to the owners, consignees, or any other person whatsoever without the written permission of the quarantine or inspecting officer. All imported nursery stock, trees, plants, &c., other than those exempted under clauses 6 and 7 shall, before being distributed in any part of British Columbia, be delivered at the Provincial Inspection Station in Vancouver, and there unpacked, inspected and, if necessary, treated as directed by the inspector; and after such inspection and treatment shall be carefully repacked and forwarded, with all possible dispatch, to their destination, accompanied with a certificate of the inspecting officer.

#### INSPECTION OF FRUIT, GRAINS, PEAS, BEANS, ROOTS, TUBERS, &C.

12. Express companies, wharfingers or warehousemen receiving or conveying fruit, grains, peas, beans, roots, tubers, &c., shall in no case deliver or cause to be delivered, such fruits, grains, peas, beans, roots, tubers &c. or any portion thereof, without first receiving clean certificate of inspection from the quarantine or inspection officer. All fruits, grains, peas, beans, roots, tubers, &c., found to be infected with any insect pest, fungous or bacterial disease, shall be quarantined or condemned at the discretion of the quarantine or inspection officer, and a certificate of quarantine or condemnation issued accordingly.

#### HOLDING FOR INSPECTION VEGETABLES OR SEEDS.

13. Transportation companies, wharfingers or warehousemen receiving or conveyinguity regetables or seeds shall, when notified by the Inspector of Fruit Pests or agent appointed by the Board, hold for inspection any of the above-mentioned articles, and shall in no case deliver any of these articles without the written permission of the inspecting officer.

#### INSPECTION OF IMPORTED AND HOME-GROWN FRUIT.

14. All fruit, whether imported or grown in this province, and whether in process of growth or gathered for intended use or sale, or exposed for sale, shall be subject to inspection under the authority of the Board, and if found to be infected with any injurious insect pest, fungous or bacterial diseases, shall be quarantined, or may be destroyed according to the provisions of the 'Agricultural Associations Act, 1911,' by such methods as the Board or its agents may direct. Packages containing quarantined fruit shall be marked with a distinctive mark or brand at the time of the inspection thereof by the inspecting officer. It shall be an offence against the rules and regulations of the Board of Horticulture to deface or remove such mark or brand.

#### STENCILLING AND LABELLING.

15. All persons shipping, sending, or delivering any fruit, fruit-trees, scions, cuttings or plants within the province shall place upon or securely attach to each box, crate or other package or parcel containing the same a distinct stamp, mark or label, showing the name of the producer and shipper or sender, and the locality where grown. Boxes and barrels containing fruit shall be stencilled or stamped, according to the provisions of the Dominion 'Fruit Marks Act,' with letters not less than half an inch in length.

#### INSPECTION FEES ON NURSERY STOCK, TREES AND PLANTS,

16. The fees for inspection of apple, pear, plum, cherry and other fruit trees shall be as follows:—

consignments numbering_	

12 trees under																	 \$	50
Over 12 and unde	r 25																 1	00
Over 25 and unde	r 50											,					 2	00
Over 50 and under	100.																 2	50
Over 100 and unde	er 250.																 3	50
Over 250 and unde	er 500.								,				ì				 5	00
For every addition	al 500	0	r	fra	e	tic	n	1	h	eı	re	of					 2	00 additional.

#### For other nursery stock the fees shall be as follows:-

On \$5 in value or fraction thereof	\$	50
Over \$5 and under \$10	1	00
Over \$10 and under \$25	2	50
Over \$25 and under \$50	3	50
And 5 per cent additional on the value over \$50.		

When nursery stock, trees or plants are found to be infected with insect pests or diseases, a charge of 50 per cent will be added to the foregoing rates to pay expenses of the quarantine officers for supervising disinfection and subsequent inspection.

#### INSPECTION FEES ON FRUITS AND GRAINS,

17. On apples, pears and quinces the minimum fee shall be \$1 for any number of boxes up to thirty-three, and all in excess of this number shall be at the rate of 3 cents per box. On fruit packed in barrels the fee shall be \$1 for any number of barrels up to ten, and for any number of barrels over ten the fee shall be at the rate of 10 cents per barrel. On peaches, apricots, plums, cherries, oranges, lemons, limes, grape-fruit, and tomatoes, the minimum fee shall be \$1 for any number of boxes up to sixty-six, and any number in excess of sixty-six at the rate of 1½ cents per box. On pineapples the fee shall be 10 cents per crate, with a minimum fee of \$1.

On grains the inspection fee, including fumigation or other treatment, shall be

a minimum charge of \$1 per ton.

It is furthermore provided that all other varieties of fruits and vegetables shall be subject to inspection, if deemed necessary, on the same terms and subject to the same fees as those above mentioned. Certified invoices will be required. Packages must be opened and closed by consignee or agent.

#### 18. QUARANTINE STATIONS WHERE FRUIT MAY BE INSPECTED.

Victoria.	Golden,	Gateway,	New Westminster,
Vancouver.	Revelstoke,	Kingsgate,	Cascade,
Rossland,	Nanaimo,	Huntingdon,	Bridesville,
Waneta,	Midway,	Douglas,	Keremeos,
Creston,	Myncaster,	Cranbrook,	Fernie.
Grand Forks			

19. For the extirpation of insect pests and fungous diseases, the Board has adopted the following formulæ, as issued by the Horticultural Branch of the Department of Agriculture for the year 1912:—

#### SPRAY CALENDAR FOR 1912.

FRUITS AND THEIR PESTS.

#### Apple.

For seab or black spot on fruit, leaf-spot, caterpillars and all biting insects, scale insects, aphids.

First application.—Spray shortly before buds burst. Use lime-sulphur A, winter strength.

Second application.—Just before the blossoms open. Use lime-sulphur C with arsenate of lead.

Third application.—Immediately after all blossoms have fallen. Use lime-sulphur C with arsenate of lead.

Remarks.—Do winter pruning before the first application. In moist climates or if weather be unusually damp, give a fourth application of lime-sulphur C two or three weeks after third spraying. For aphids, watch very carefully to detect first ones; just before leaf-buds burst, spray with black leaf, diluted 1—60, or black leaf 40, diluted 1—800. For fruit-pit or Baldwin spot, see circular.

#### Pear

For scab or cracking, blight, blister-mite, slugs.

First application.—Spray shortly before buds burst. Use lime-sulphur A.

Second application.—Just before the blossoms open. Use lime-sulphur B. Second and third application unnecessary with non-scabbing varieties.

Third application.—Just after blossoms fall. Use lime-sulphur C. Add 1 lb. arsenate of lead to 40 gallons of water, for slugs.

Remarks.—Note.—Cut out and burn blight as soon as seen, cutting one foot below diseased area. Disinfect tools (see disinfectant below). In unusually damp weather, give fourth spraying, lime-sulphur C, two or three weeks after third spraying, for seab.

#### Plum, Prune and Cherry.

For brown-rot, shot-hole, fungus, slugs, aphis, gummosis.

First application.—Shortly before buds burst. Use lime-sulphur A. Second application.—Just after fruit is set. Use lime-sulphur D.

Third application.—In early June, arsenate of lead, 1 lb. to 40 gallons, for slugs. Remarks.—Where brown-rot is prevalent, destroy all mummied fruit in the autumn; prune the tree to admit sunlight, and thin fruit so that no fruits touch each other. Look for aphids just before buds burst, and if found, spray with black leaf at 1—60. Spray for slug on cherry as on the pear. For gummosis, cut out gumpockets, disinfect and paint the wounds. Prune bearing cherry-trees lightly after fruit has been picked. Discourage heavy growth of young trees, by light pruning, and sod if necessary.

#### Peach.

For leaf-curl, twig-borer, mildew.

First application.—Shortly before buds burst. Use lime-sulphur A.

Remarks.—For mildew, cut off and burn all affected twigs at winter pruning. No satisfactory summer spray for mildew has yet been secured. Lime-sulphur at 1—60 is worthy of further trial.

#### Raspherry and Blackberry.

For anthracnose.

First application.—Before growth begins. Use Bordeau mixture.

Remarks.—Spraying hardly pays for anthracnose. Cut out and burn old canes as soon as fruit is picked. Keep plantations well cultivated and fertilized. Set out new plantation about fifth year.

#### VARIOUS SPRAYS.

Lime-sulphur A, winter strength. Dilute the commercial preparation, 1 gallon to 9 of water.

Lime-sulphur B, spring strength, for apples and pears. Dilute the commercial preparation, 1 gallon to 25 of water.

Lime-sulphur C, summer strength, for apples and pears. Dilute the commercial preparation, 1 gallon to 30 of water.

Lime-sulphur D, summer strength for plums, cherries, &c. Dilute the commercial preparation, 1 gallon to 55 or 60 of water. Exerimental as yet, try a few trees first.

Arsenate of lead, use 2 lbs. of the commercial paste to 40 gallons of water. For

slugs, 1 lb. to 40 gallons.

Black Leaf Nicotine Extract. Dilute 1—60 for woolly aphis, mealy plum aphis, 1—70 for black aphis, and 1—80 for summer spraying on apple aphis. Black Leaf 40 is diluted, 1—600 to 1—800, for different types of aphis.

Bordeaux mixture, 4, 4, 40 formula, (See below.)

Note.—Fall Spraying for Apple Orchards.—In Coast and Island sections, spray trees with double-strength Bordeaux Mixture just before fall rains begin, to prevent black-spot, canker, or bark-disease. This spraying, well done, supersedes the first application mentioned above. (See Bulletin 34.)

#### FORMULÆ FOR INSECTICIDES.

#### 1. Internal Poisons (for Biting Insects).

(1) Arsenate of Lead. Use only paste form, do not accept powdered. Ordinarily, use 2 lbs. to 40 gallons (Imperial). For pear-slug, use 1 lb. to 40 gallons. Caterpillars, when plentiful, 3 lbs. to 40 gallons.

(2) Paris green for cutworms, mix 1 lb. Paris green with 50 lbs. bran moistened

with sweetened water. Scatter in evening on soil by plants.

(3) White Hellebore, 1 oz. to 2 gallons water for spraying. For dusting on plants, use undiluted. For root-maggot, dust close to plants.

#### 2. Contact Poisons (for Sucking Insects).

(1) Black Leaf Tobacco Extract. Dilute the commercial article with water as follows: 1—60 for early spraying, or for woolly aphis or mealy plum-aphis in summer; 1—70 for black aphis on cherry; 1—80 for green apple-aphis in summer. Black Leaf 40, see above.

(2) Whale-oil Soap, 7 lbs., Quassia chips, 8 lbs. to 100 gallons water. Boil the chips in about 8 gallons water for one hour. Dissolve the soap in hot water, strain, and mix both solutions together, add water to make 100 gallons. This is an old and

efficient remedy for aphis.

(3) A cheap and efficient contact spray is made by the following formula: Whale-oil soap, 2 lbs., Back Leaf, 1 quart. Dissolve the Whale-oil soap as above, and mix it with the Black Leaf in 40 gallons of water.

(4) Lime-sulphur wash. (See under Fungicides.)

#### FUNCICIDES.

#### 1. Bordeaux Mixture.

Copper sulphate														4	lbs.
Unslacked lime.			,			٠.	,				,	 		4	44
Water														40	gallons.

Dissolve the copper sulphate in a wooden vessel with hot water, pour it into the barrel, and add cold water to make 20 gallons; slack the lime with hot water, and add water to make 20 gallons, stir both well, and pour the lime into the copper sulphate barrel. Observe these directions very carefully.

For fall spraying, for black-spot canker on the apple tree, use double quantities

of lime and copper sulphate.

#### 2. Lime-sulphur.

The commercial article is used in British Columbia almost alwogether. When bought it should be of a strength to register 32.5° when tested with a Baumé hydrometer, or a specific gravity of 1.28 on the specific gravity hydrometer.

For winter application, dilute with 9 times its volume of water. For summer application, dilute 35 times, and for summer use on plums and cherries with 55 to 60.

#### DISINFECTANT.

(For Wounds on Trees, Pruning-tools used for Blight.)

Corrosive sublimate, 1 part to 1000 of water. Best to get the drug store tablets; use one tablet to a pint of water. Apply with brush or swab.

Corrosive sublimate is highly poisonous if taken internally. It also corrodes metals, and must be used in wooden or glass vessels.

#### ESSENTIALS IN SUCCESSFUL SPRAYING.

- 1. Get pruning done before doing winter spraying.
- 2. Know what you are spraying for.
- 3. Get a good pump, and take care of it.
- 4. Spray with at least 100 lbs. pressure, using a large circular nozzle of the Friend type. If you can use 150 lbs. or over, the Bordeau nozzle gives a better driving spray for winter spraying of old trees. Use an angle nozzle.
- Spray thoroughly. Get every spot covered. There is no injury from overspraying. Half-hearted spraying is useless for the trees, and costly for the owner.

You can get further information on this subject by addressing the Horticulturist, Department of Agriculture, Victoria.

#### PENALTIES.

20. Every person violating the provisions of the 'Horticultural Board Act,' or any amendments thereto, or the rules and regulations adopted by the Board, is liable, upon summary conviction before a justice of the peace, to a penalty not exceeding \$50 for each offence.

#### REPEALING FORMER RULES AND REGULATIONS,

21. All rules and regulations heretofore adopted and published under the authority of the 'Horticultural Board Act, 1894,' or any amendments thereto, are hereby repealed, and the foregoing rules and regulations substituted in lieu thereof, under the requirements of the 'Agricultural Associations Act, 1911.'

#### RECOMMENDATIONS.

22. Horticultural and agricultural societies, and all those interested in advancing and protecting the interests of fruit growing, are requested to co-operate with the Board in the enforcement of the provisions of the 'Agricultural Associations Act, 1911,' and the regulations thereunder, as adopted by the Board.

#### CORRESPONDENCE.

All correspondence relating to the extirpation of fruit pests should be addressed to the Inspector of Fruit Pests at Vancouver, or the Secretary of the Board at Victoria. Correspondence relating to other matters should be addressed to the Secretary of the Board.

Office of the Provincial Board of Agriculture,
Department of Agriculture,
Victoria, B.C., January 5, 1912.

#### NOVA SCOTIA.

In 1900 the Province of Nova Scotia passed a San José Scale Act and a Black Knot Act, which were directed against these respective enemies of fruit trees. In view of the necessity of having wider legislative powers, owing to a great extent to the advent of the Brown-tail Moth, a more comprehensive measure, the Injurious Insect Pest and Plant Disease Act, was passed in 1911. This enables the Provincial Department of Agriculture to appoint inspectors and to take such steps as may be necessary to eradicate insect pests and to prevent their introduction and spread. The insects and plant diseases scheduled under the Act are detailed in section 1 of the regulations.

The value of this Act was demonstrated on the discovery of San José Scale in the province during the present year, 1912, on nursery stock imported from Ontario. Inspectors were appointed by the Provincial Department of Agriculture and were

empowered to destroy scale infested trees.

The following is the text of the Injurious Insect Pest and Plant Disease Act and the regulations issued thereunder.

An Act to Prevent the Introduction and Spread of Insects, Pests and Plant DISEASES DESTRUCTIVE TO VEGETATION.

#### (Passed the 31st day of March, A.D. 1911.)

Be it enacted by the Governor, Council and Assembly, as follows:-

1. This Act may be cited as 'The Injurious Insect Pest and Plant Disease Act, 1911.

2. In this Act and in any regulation made thereunder, unless the context otherwise requires,-

'Vegetation' means any tree, shrub, vine or plant or the fruit or any portion whatsoever of a tree, shrub, vine or plant.

'Inspector' means an inspector or other officer appointed under the provisions of this Act for carrying out this Act.

3. This Act shall apply only to such plant diseases, insects and pests as the Governor in Council may from time to time declare to be injurious to vegetation and subject to this Act.

4. The Governor-in-Council may from time to time make such regulations as are deemed expedient to prevent the introduction into the Province of Nova Scotia or the dissemination therein of any such plant disease, insect or pest.

5. Such regulations may provide:-

(a) that except as is otherwise provided in such regulations, it shall be unlawful for any person to have in his possession in the province or in any particular part thereof at any time or during any particular time or times, any vegetable or other matter that the Governor in Council deems to be likely to introduce into the province or to disseminate therein any such plant disease, insect or pest:

(b) the terms or conditions upon which any person may lawfully have in his

possession any such vegetable or other matter;

(c) for the treatment and method of treatment to be given to any vegetation. vegetable matter or premises to eradicate, or control, or to prevent the spread of any such plant disease, insect or pest, and such regulations may prescribe whether such treatment shall be given by the owner or by a person appointed for the purpose;

(d) for the treatment, prior to the sale or disposal thereof of any vegetation or vegetable matter infected with any such plant disease, insect or pest;

(e) that the occupier of the premises on which is discovered any such plant disease, insect or pest, shall immediately notify the Secretary for Agriculture thereof, and shall also send specimens of such plant disease, insect or pest, to the said secretary:

(f) for the seizure and confiscation of any vegetable matter and the container, if any, in respect to which a breach of this Act, or of any regulation made thereunder, is committed:

(g) generally for or respecting the doing or abstaining from the doing of any act, matter or thing whatsoever that the Governor-in-Council may deem expedient for carrying out this Act, whether such regulations are of the kind enumerated in this section or not.

6. The Provincial Secretary may appoint inspectors and such other officers as he deems expedient for carrying out this Act and the regulations made thereunder. Such inspectors and other officers shall act under the direction of the Secretary for Agriculture.

7. Any inspector may enter any place or premises whatsoever in which he suspects

that any such plant disease, insect or pest exists.

8. Any person contravening or neglecting to carry out or offering any hindrance to the carrying out of any provision of this Act, or of any regulation made thereunder, shall be liable, upon summary conviction, to a fine of not less than twenty dollars, nor more than one hundred dollars, together with costs, and in default of payment, to imprisonment for a period of not less than ten or more than thirty days.

9. Every Order-in-Council and regulation made under this Act shall be published in two successive issues of the Royal Gazette, but every such Order-in-Council and every such regulation shall nevertheless be in force on and from the date on which

the same is made.

10. The Black Knot Act, Chapter 63 of the Revised Statutes of Nova Scotia, 1900, and the San José Scale Act, Chapter 64 of the Revised Statutes of Nova Scotia, 1900, are repealed.

REGULATIONS PASSED UNDER THE INJURIOUS INSECT PEST AND PLANT DISEASE ACT.

#### (July 7, 1911.)

1. The following plant diseases, insects and pests are hereby declared to be injurious to vegetation and subject to the Injurious Insect, Pest and Plant Disease Act, 1911, namely: The San José Scale (Aspidiotus perniciosus Comst.); the Browntail Moth (Euproctis chrysorrhea L.); the Gipsy Moth (Porthetria dispar L.); the Woolly Aphis (Schizoneura lanigera Hausm.); the Black Knot (Plowrightia morbosa Sac.); Apple Canker (Nectria ditissima Tul.).

2. Except as is otherwise provided in these regulations, it shall be unlawful for any person to have in his possession, offer for sale, or otherwise dispose of in the province at any time, any vegetable or other matter that is infested with any such insect, pest or plant disease, said vegetable or other matter being deemed and hereby declared by the Governor-in-Council to be likely to introduce into the province and disseminate

therein such plant diseases, insects and pests.

3. The occupier of the premises on which is discovered any such plant disease, insect or pest shall immediately notify the Secretary for Agriculture thereof, and shall also send specimens of such plant disease, insect or pest to the said Secretary, and shall give him all the information possible in reference to any such infestation.

4. The owner of the premises on which is discovered any such plant disease, insect or pest, or on which an inspector suspects that any such plant disease, insect or pest exists, shall, within ten days after being notified in writing by an inspector so to do, give such treatments as are recommended by the Secretary for Agriculture.

Any inspector may forthwith seize and confiscate any vegetable matter and the container, if any, in respect to which a breach of said Act or of any of these regulations is committed.

- 6. If any such plant disease, insect or pest is discovered in any nursery, the Secretary for Agriculture shall, on the report of an inspector, inform the owner, manager or lessee of such nursery of the fact, and no vegetation shall be removed from such nursery until permission in writing so to do has been obtained from the Secretary for Agriculture.
- 7. The Secretary for Agriculture may authorize, by writing under his hand, any person to have in his possession, in the Province of Nova Scotia, any such plant disease, insect or pest for the purpose of scientific investigation only.

The following additional regulations were passed on June 4, 1912, on account of the discovery of San José Scale on nursery stock imported from Ontario:—

- (1) Where any inspector finds living San José Scale present on any trees, he may order the immediate destruction of such trees, and such order shall be carried out under the supervision of the inspector and in such manner as he may direct.
- (2) Any inspector may himself destroy any trees which he finds infected as aforesaid.
- (3) Any order for destruction made hereunder may include the destruction of any trees which in the opinion of the inspector, by reason of their proximity to trees having thereon living scale, may have become infected.

On October 25, 1912, the following additional regulations were passed by Orderin-Council chiefly with a view to preventing the further introduction of the San José Scale into the province. They are largely based upon and follow the requirements of the Dominion regulations:—

The Governor-in-Council, under the provisions of 'The Injurious Insect Pest and Plant Disease Act, 1911,' is pleased to make the following additional regulations:—

1. In these regulations, unless the context otherwise requires-

'Provincial Entomologist' means the person appointed as such for the purpose of carrying out the provisions of 'The Injurious Insect Pest and Plant Disease Act, 1911,' or under the provisions of any other statute.

'Inspector' means a person appointed for carrying out the provisions of said Act and the regulations made thereunder.

- 'Nursery stock' means and includes all trees, shrubs, plants, vines, grafts, scions, cuttings and buds, but shall not include green-house grown plants, herbaceous perennials and bedding plants.
- 2. No imported nursery stock shall be delivered to any importer or consignee within the Province of Nova Scotia unless the same is accompanied by a certificate signed by such Provincial Entomologist or other authorized government officer as is approved by the Secretary for Agriculture that the nursery or other premises on which the same was grown was inspected within the period between the fifteenth day of June and the fifteenth day of September next preceding the shipment thereof, and that said nursery or other premises were found to be apparently free from San José Scale and such other plant diseases, insects and pests as have been declared to be injurious to vegetation by the Governor-in-Council under the provisions or 'The Injurious Insect Pest and Plant Disease Act, 1911,' provided that any importation of nursery stock which has complied with the regulations of these regulations.

3. No common carrier, express company or other person, firm or corporation shall send, bring or cause to be sent or brought into the Province of Nova Scotia, for delivery within the province, any nursery stock unless the certificate mentioned in the next preceding regulation, or a duplicate thereof, is attached to each parcel or bundle thereof; provided, however, that if such nursery stock is contained in a sealed car containing no other goods, such certificate may be attached to the car.

4. Every person who imports nursery stock shall give notice to the Provincial Entomologist, Agricultural College, Truro, within five days of giving the order for the same, and shall again notify the Provincial Entomologist on the arrival of the shipment in Nova Scotia. Notice shall also be given the Provincial Entomologist by every common carrier, express company or other person, firm or corporation bringing nursery stock into Nova Scotia for delivery within the province immediately such nursery stock is received. Such notice shall include the name of the comignor and consignee, the points of origin and destination, the name of the company or person carrying the nursery stock, as well as the nature, quantity and origin of the same.

5. (1) No nursery stock shall be brought into Nova Scotia for delivery within the province except at or through the ports and during the periods respectively herein-

after mentioned; that is to say:-

Middleton, Annapolis county, from March 15 to May 15, and from October 7 to December 7;

Truro, Colchester county, from March 15 to May 15, and from October 7 to December 7;

and at any such ports during such periods as may from time to time be prescribed by the Secretary for Agriculture.

The Secretary for Agriculture may prescribe, for the purpose of this regulation, any port at which the use of a Dominion fumigation station is available;

- (2) At the ports hereinbefore mentioned all importations of nursery stock shall be inspected and fumigated in the fumigation house provided for that purpose, and a certificate of fumigation will be issued by the provincial entomologist, and no nursery stock shall be delivered by any common carrier, express company or other person, firm or corporation unless such certificate has been obtained;
  - (3) Importations by mail shall be subject to the same regulations.
- 6. There shall be clearly marked or otherwise indicated on every package of nursery stock intended for delivery within the Province of Nova Scotia the port at or through which such nursery stock is to be brought, and all shipments of nursery stock shall be entirely at the risk of the shippers or consignees, the government assuming no responsibility whatever.
- 7. If, on inspection, nursery stock or other vegetation or vegetable matter is found to be infected with San José Scale or any other plant diseases, insects and pests as have been, or may hereafter be, declared to be injurious to vegetation by the Governor-in-Council, under the provisions of 'The Injurious Insect Pest and Plant Disease Act, 1911,' such nursery stock shall be destroped to the extent deemed necessary by the inspector, and in his presence, or, if required by the consignee. All cases, packages and packing in which such nursery stock has been contained shall also be destroyed in the same manner.

#### ONTARIO.

The Province of Ontario has a legislative measure known as The Fruit Pest Act (10 Edw. VII, c. 99, 5-1), which is administered by the Fruit Branch of the Department of Agriculture. Insects and plant diseases affecting fruit trees only are scheduled under this Act. These are: the Codling Moth, San José Scale, Pear Psylla, Black Knot, Little Peach, Yellows and Pear Blight. The regulations are intra-provincial in scope, and the work is carried on chiefly in conjunction with the municipalities which appoint inspectors subject to the approval of the Minister of Agriculture, in addition to those appointed by the Provincial Department of Agriculture. These inspectors have power to order the destruction of infested or diseased trees and plants. Owners of nurseries are not allowed to dispose of any plants unless they have been fumigated in accordance with the regulations prescribed by order of the Lieutenant-

Governor in Council. Inspectors visit the nurseries to see that the fumigation regulations are properly carried out and to destroy infested trees.

The Fruit Pest Act and regulations\* passed thereunder are as follows:-

AN ACT TO PREVENT THE SPREAD OF INSECT AND FUNGUS DISEASES INJURIOUS TO VEGETATION.

Short title, s. 1. Short title, s. 1.
Interpretation, s. 2.
Inspectors, s. 3.
Prohibition of importation of diseased plants, s. 4.
Keeping diseased plants, s. 5.
Municipal Inspectors, s. 7.
Notice of report to owner, etc., Destruction of diseased plants, s. 6. Municipal inspector to be subject to regulations of Provincial in-

spector, s. 9. Remuneration, s. 10. Fumigation, s. 11. Prohibition of sale pending, s. Removal pending, s. 13. scientific pur-Exception for poses, s. 14. Owner to notify Minister, s. 15. Examination and destruction, . Free access to inspectors, s. 17. Penalty, s. 18. Including other diseases, s. 19. Regulations, s. 20.

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:-

1. This Act may be cited as The Fruit Pest Act. 10 Edw. VII., Short title. c. 99, s. 1.

Repeal, s. 21,

2. In this Act-

Interpretation.

(a) 'Disease' shall mean the following insects and diseases in "Disease." any stage of development: Codling Moth, San José Scale, Yellows, Little Peach, Black Knot, Pear Psylla, and Pear Blight, and any other insects and diseases to which the provision of this Act may be extended under section 14.

(b) 'Minister' shall mean the Minister of Agriculture for the" Minister."

Province of Ontario.

(c) 'Plant' shall mean any tree, vine, shrub or plant. 10" Plant"

Edw. VII., c. 99, s. 2. Amended.

3. On the recommendation of the Minister, the Lieutenant Inspectors. Governor in Council may appoint one or more competent persons to act as inspectors, whose duties shall be to enforce the provisions of this Act. 10 Edw. VII., c. 99, s. 3.

4. (1) No person shall import or bring, or cause to be imported Importing or brought into Ontario, for any purpose whatsoever, any diseased diseased plants plant or fruit, or sell or dispose of, or offer for sale any fruit in-prohibited.

fested with San José Scale, Yellows or Little Peach.

(2) Wherever such diseased fruit exists or is believed by the Examination of provincial inspector to exist he may make an examination and suspected fruit. inspection, and may order any fruit so infested, or such part as he may deem advisable, to be destroyed. 10 Edw. VII., c. 99, s. 4; 1 Geo. V., c. 17, s. 60.

5. No person shall keep or have, or offer for exchange or sale keeping diseased plants.

any diseased plant. 10 Edw. VII., c. 99, s. 5. Part.

6. Every person owning, leasing or managing any orchard or Destruction of collection of plants, other than a nursery, shall, when any plant diseased plants. therein becomes diseased and forthwith on becoming aware of such

<sup>\*</sup> Further regulations will shortly be passed providing for regular inspection of nurseries in Ontario and the issuing of nursery certificates. These regulations had not been issued while this Bulletin was going through the press.

disease, destroy such plant by fire or effectually treat the disease by fumigation or spraying with such material as may be prescribed by the Minister. 10 Edw. VII., c. 99, s. 5 (a).

Appointment of inspectors by municipality.

7. (1) The council of any local municipality may, and upon the petition of twenty-five or more fruit growers who are rate-payers, shall, by by-law, appoint at least one inspector to enforce the provisions of this Act in the municipality and fix the amount of remuneration, fees or charges he shall receive for the performance of his duties.

Approval of Minister. (2) All such appointments, remuneration, fees or charges shall be subject to, and be only operative on the written approval of the Minister, communicated by him to the clerk of the municipality.

Duration of by-law.

(3) The by-law shall not take effect unless and until approved by the Minister and shall remain in force only for the calendar year in which it is passed.

Transmitting copy to Minister.

(4) The clerk of the municipality shall transmit a certified copy of every such by-law to the Minister of Agriculture before the first day of March after the passing thereof. 10 Edw. VII., c. 99, s. 5 (b); 1 Geo. V., c. 17, s. 61. Amended.

Notice to owner or occupant.

8. Upon the report of the municipal inspector to the provincial inspector that there is disease upon the plants on any lot within the municipality, the provincial inspector shall direct the municipal inspector to give notice personally by the inspector or by registered letter to the owner or occupant of the lot to have the plants forthwith sprayed, or to have them destroyed by burning as may be determined by the provincial inspector, and if this is not done within ten days after the notice has been given, the inspector may cause such spraying or destruction by burning to be done, and he shall report to the clerk what has been done, and the cost of the work, and such cost shall be charged on the lot and be collected as a special tax in addition to the other taxes imposed by the municipal council on the lot. 10 Edw. VII., c. 99, s. 5 (c); 1 Geo. V., c. 17, s. 62.

Inspectors to obey regulations.

9. Every inspector appointed by a municipal council shall be subject to and observe the regulations and directions of the Minister, and shall be subject and subordinate to the provincial inspector appointed by the Minister, and in case of any neglect of duty shall be subject to the penalties prescribed by this Act. 10 Edw. VII., c. 99, s. 5 (d).

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Remuneration of municipal inspectors. 10. The council shall pay the remuneration, fees or charges of the municipal inspector and shall be entitled to receive from the Department of Agriculture one-half of the amount so paid upon furnishing the Department with a statement of the sums so paid, certified to by the provincial inspector, provided that such statement is submitted to the Minister on or before the fifteenth day of December of the year to which it applies. 10 Edw. VII., c. 99, s. 5 (e).

Nurserymen to fumigate plants. 11. The proprietor or manager of any nursery shall not send out or permit any plant to be removed from his nursery until the same has been fumigated by hydrocyanic acid gas in accordance with the regulations prescribed by order of the Lieutenant Governor in Council. 10 Edw. VII., c. 99, s. 6.

Plants not to be sold until fumigated.

12. No person shall sell or dispose of or offer for sale any plant obtained, taken or sent out from a nursery unless the same has been previously fumigated by hydrocyanic acid gas in accordance with the above regulations. 10 Edw. VII., c. 99, s. 7.

13. If an inspector finds disease in any nursery and so reports Plants not to be to the Minister, the Minister may thereupon inform in writing the removed from proprietor or manager of the nursery in writing of the existence disease exists of the disease, and the proprietor or manager shall not thereafter permit any plant to be removed until he is notified in writing by the Minister that the inspector has reported to the Minister that it is safe in the public interest to permit such removal after fumigation. 10 Edw. VII., c. 99, s. 8.

14. For the purpose of scientific investigation the Minister Exception for may, from time to time, by writing given under his hand, except scientific purposes. such persons as he may deem proper from the operation of sections 11 and 13, and while acting under such permission such persons shall not be subject to the penalties imposed by this Act. 10 Edw.

VII., c. 99, s. 9.

15. Any person having reason to suspect that any plant in his Owner of diseased possession or in his charge or keeping is diseased shall forthwith plant to notify the communicate with the Minister in regard to the same, and shall Minister. furnish the Minister with all such information in regard to the source or origin of the said infestation and the nature of the same

as he may be able to give. 10 Edw. VII., c. 99, s. 10.

16. (1) When disease exists or is supposed to exist on any Examination of plant the Minister may direct a competent person to make an examination destruction ination and inspection, and may order that any plant so infested, by burning. or any such part as he may deem advisable, shall be immediately destroyed by burning, either by the person appointed to make the inspection or by the person owning or having possession of the plant, or some other person so directed in writing, and the person so directed shall report to the Minister in writing the nature and extent of the work so performed, together with a fair estimate of the value of the plants destroyed.

te of the plants destroyed.

(2) If, in a nursery, orchard or collection of plants, the Where disease found in several inspector finds disease on plants located in several different parts parts of orchard of the nursery, orchard or collection, and decides that it is advisable or collection. in the public interest to destroy all the plants in such nursery, orchard or collection, or in any part thereof, and so reports to the Minister, the Minister may direct that an examination or inspection shall be made by an additional inspector, and upon the advice in writing of both inspectors he may direct that all the plants in such nursery, orchard or collection, or in such part or parts thereof, shall be destroyed without requiring that every plant therein shall be first examined. 10 Edw. VII., c. 99, s. 11.

17. Any inspector or other person acting under the authority Free access for of this Act shall, upon producing his authority in writing, have inspectors, etc. free access to any nursery, orchard, store-room, or other place where it is known or suspected that any plant is kept. 10 Edw. VII.,

c. 99, s. 12.

18. Any person neglecting to carry out the provisions of this Penalty. Act, or any person offering any hindrance to the carrying out of 10 Edw. VII., this Act, shall incur a penalty of not less then 210 this Act, shall incur a penalty of not less than \$10 nor more than \$100, recoverable under The Ontario Summary Convictions Act. 10 Edw. VII., c. 99, s. 13.

19. The Lieutenant Governor in Council may, by order, direct Including that other insects and diseases than those mentioned may be in-other diseases. cluded in the provisions of this Act, and thereafter during the continuance of such order in council, the word 'disease' in this Act

shall include all such other insects and diseases. Public notice of such order in council shall be given by publication in two successive issues of the *Ontario Gazette*. 10 Edw. VII., c. 99, s. 14.

Regulations.

20. The Lieutenant Governor in Council may make such regulations as may be deemed expedient for the better carrying out the provisions of this Act. New.

10 Edw. VII., c. 99, 21. The Fruit Pests Act, passed in the 10th year of the reign 1 Geo. V., c. 17, of His late Majesty, King Edward the Seventh, and sections 60, 61, ss. 60-62, repealed. and 62 of The Statute Law Amendment Act, 1911, are repealed.

REGULATIONS GOVERNING THE FUMICATION OF NURSERY STOCK PASSED UNDER THE FRUIT
PEST ACT.

1. Fumigation must be carried on in a box, room, compartment or house suitable for the purpose, which must be air-tight and capable of rapid ventilation. The owner or proprietor will notify the Minister as soon as preparation for fumigation is complete. The Minister will thereupon order an inspection of the fumigation appliances. No fumigation under the Act is to be carried on until such inspection has been made and a satisfactory report sent to the Minister.

2. The inspector, after examining and measuring the box or house, or other compartment in which fumigation is to be carried on, will prescribe the amounts of material to be used for every fumigation, and the instructions as to the same must be carefully followed out. The inspector may, if thought advisable, supply the material

for each fumigation in weighed packages.

3. The fumigation house (which shall include all apparatus or appliances used in the fumigation, such as generators, &c.) is to be subject to the orders of the Minister on the recommendation of the inspector. Subject to the approval of the inspector, the fumigation house may be on other lots than those on which the nursery stock is growing.

4. The fumigation is to be by hydrocyanic acid gas, produced according to the instructions of the inspector, and from such formula as he prescribes for the purpose.

5. The fumigation is to be continued for a period of not less than forty-five minutes. After the expiration of this time or longer, and when fumigation is complete, the house is to be thoroughly ventilated for fifteen minutes at least.

6. No person is to be allowed to enter the fumigating house until after the ventilation period has expired. Entering before may prove injurious, if not fatal, as the gas is a deadly poison.

7. The fumigation of buds and scions may be done in fumigation boxes of not less than thirty cubic feet capacity, the same to be subject to inspection and approval.

8. Immediately after inspection of the fumigation house, the inspector will report to the Minister, and the Minister or inspector will thereupon give permission in writing for the owner or proprietor to begin fumigation.

9. The owner or proprietor of every nursery will attach to every box and to every package of nursery stock a certificate as follows, and he will furnish to every purchaser who so desires, a copy of the same:—

#### CERTIFICATE OF FUMIGATION.

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the	 day	of	Governor	19.	, in	accordan	ce with	the regu	lations
Chapter S	the Inc	uverkanv	GOVERNOL	m co	unen, n	i accordi	ince with	TO Edw	

In addition to the foregoing legislation which has reference only to insect pests and fungal diseases affecting fruit trees, there is a section (No. 24) in the Municipal Amendment Act of Ontario (6 Edw. VII, Chap. 34), passed in 1906, which enacts that councils in cities may pass by-laws to require owners of trees to destroy Tussock Moths (Hemerocampa leucostigma) and, if the owners refuse or neglect to do so, the councils may, after giving ten days notice, have the work done by officers appointed by them at the expense of the owners.

#### PRINCE EDWARD ISLAND.

Owing to the invasion of Canada by the Colorado Potato Beetle (Leptinotarsa decemlineata) and its rapid spread, the Province of Prince Edward Island passed in 1883 'An Act to Prevent the Spread of the Potato Bug in Prince Edward Island,' as the growing of potatoes was an important form of agricultural activity on the island. In 1895 the increasing prevalence of Black Knot on plum and cherry trees was responsible for the enactment by the Provincial Legislature of 'An Act to Prevent the Spread of Black Knot on Plum and Cherry Trees.'

These Acts are still on the statute books and are given below:-

An Act to Prevent the Spread of the Potato Bug in Prince Edward Island.

#### (Assented to April 27, 1883.)

Whereas it is expedient to provide against the spread of the Preamble.

Potato Bug in this province:

Be it therefore enacted by the Lieutenant Governor, Council

and Assembly as follows:-

1. The Board of School Trustees in the several school districts Nettee of in this Island, except Charlottetown, shall insert in the notices of Meeting. holding the Annual School Meetings under 'The Public Schools Act, 1877,' a notice or intimation in form Λ, hereto annexed, that, immediately after the close of said meeting a meeting will be held at the same place for the purposes of this Act. All persons qualified Qualification of to vote at said School Meeting shall be eligible to vote at the meet-voters. ings to be held under this Act.

2. The said meeting may adjourn from time to time, as a Meeting may adjourn.

majority of voters present shall determine.

3. The Secretary of the Board of School Trustees shall be Who shall be Secretary of said meeting, and in case of a vacancy in said office of Chairman. Secretary of said Board, or in case of his absence or inability to attend, a majority of the voters present shall appoint one in his stead. The said meeting or a majority of them shall appoint a Chairman from time to time.

4. The meeting shall appoint one or more fit or proper person Inspectors to or persons to act as inspectors, for the purposes of this Act, in the said district, who shall act until the next annual meeting, or until

a successor or successors are appointed.

5. It shall be the duty of such inspector or inspectors so appointed, on being notified in writing by any ratepayer in the district, that the Colorado potato beetle (Doruphora decemlineata) or ten-lined spearman, or the three-lined leaf beetle (Lenatrilineata), all of which shall be known in this Act as the 'Potato Bug,' has appeared on the vines of potatoes, in any field within the school

May enter upon land.

May expend

Meeting may vote money to purchase remedies, &c.

Minutes of meeting to be delivered to School Trustees.

Secretary Board of Education to be furnished with name and address of Inspectors and shall file same.

Moneys required for purposes of this Act how levied.

Penalty on persons obstructing Inspector, &c., in discharge of his duty.

When no
Inspector
eppointed at
annual meeting
Special meeting
may be called.

district, or within any territory adjoining any school district, and not included in the boundaries of any school district in this province, to enter either by themselves or their agents upon any such land (without previous licence therefor) and to use Paris Green, London Purple, or such remedies as they may deem necessary or expedient for the destruction of the said 'Potato Bug,' and to expend any sum voted by the ratepayers at the said meeting to defray expenses thus incurred.

6. The said meeting, or a majority of the persons qualified to vote thereat, shall have power to vote such sum of money as they may deem necessary for the purpose of purchasing 'Paris Green,' 'London Purple,' or other effective remedies for the purposes of this Act, and for paying other expenses incurred by the inspector

or inspectors and authorized by the said meeting.

7. The Secretary of said meeting, if not the Secretary of the Board of School Trustees, shall, within two days after such meeting, deliver to the Secretary of the School Trustees the minutes of the said meeting or a copy thereof, signed by himself and countersigned by the Chairman of said meeting, and, in case there is no Secretary of said Board of Trustees, then the Secretary of said meeting is to deliver the same to the Chairman of the Board of Trustees, or other member of the said Board.

8. Immediately after the minutes of any meeting have been returned to the Secretary of School Trustees, or the Chairman of Trustees, in case there be no Secretary, the said Secretary or Chairman, as the case may be, shall return to the Secretary of the Board of Education the name or names of any inspector or inspectors appointed at any such meeting, with their post office addresses, and the Secretary of the Board of Education shall file in his office, for public reference, a list of such inspectors.

9. The Trustees of any School District shall cause any amount voted at any meeting held under the provisions of this Act, to be levied and assessed upon all the real estate in the district, at the time and in manner similar to other amounts authorized at any annual or other school meetings, having power to vote money to be levied and assessed upon the ratepayers for school purposes, under the provisions of the 'Public Schools' Act, 1877,' and Acts in amend-

ment thereof.

10. Any person or persons, in any way or manner, obstructing or interfering with any inspector or inspectors, or in case no inspector be appointed, with any trustee or trustees, his or their agents, servants or workmen in the execution of their duty, shall forfeit and pay a sum not exceeding five dollars, such penalty to be recovered on the oath, and in the name of any ratepayers; or of any inspector or trustee of the district, or any credible witness or witnesses before any Justice of the Peace in the county, together with costs of suit, and in the event of such person, so adjudged guilty of obstructing as aforesaid, not having goods and chattels whereon to levy the said penalty and costs, then the said Justice of the Peace is hereby authorized and empowered to commit such person or persons to the gaol of the county wherein the judgment shall have been delivered, for a period not exceeding ten days.

11. In case no inspector shall have been appointed at the annual meeting authorized to be held under the provisions of this Act, the School Trustees shall have power to call a special meeting of the ratepayers at such time and place in the district as they shall

think fit, and the notice calling the same shall state the object of the said meeting, and such meeting shall have the same power to rowers of appoint an inspector or inspectors, and to vote money at the meet reeting, ing authorized to be held on the day of the annual school meeting. Notice to be Two days notice of such meeting shall be given and posted in five of given, the most public places in the district, of which the Schoolhouse shall be one.

12. In case the Potato Bug shall appear on the potato vines in School Trustees any school district in which no inspector or inspectors shall have may assume been appointed, the trustees of such school district, on being notified same powers as by any ratepayer as provided in section five, shall have the same Inspector. powers, and be liable to the same obligations and penalties as inspectors appointed under this Act, and they shall have power to expend a sum of money not exceeding the sum of ten dollars for the purposes of this Act, and cause the same to be levied and assessed on all real estate in the district, in a manner similar to moneys voted at a meeting held for the appointment of inspectors.

13. Any inspector or any school trustee (in case no inspector Penalty. be appointed) as hereinbefore provided who, after being duly noti. Inspectors and field in writing by any ratepayer in a school district of the existence neglect of duties. of the 'Potato Bug' within his school district, shall neglect or refuse to take prompt measures for the destruction of said 'Potato Bug,' or shall neglect or refuse to perform the duties imposed upon inspectors and trustees under this Act, shall, for every such breach against the provisions of this Act be liable to a penalty not exceeding the sum of five dollars, and all proceedings for the recovery thereof shall be had and taken in the manner prescribed for the recovery of penalties under the Act of the nineteenth Victoria, Chapter twenty-three.

#### FORM OR SCHEDULE A.

Immediately after the close of the school meeting, the rate-Notice of payers will arrange themselves into a meeting for the purpose of meeting. electing an inspector or inspectors, under the provisions of the Act initialed 'An Act to prevent the spread of the "Potato Bug" in Prince Edward Island.'

An Act to Prevent the Spread of the Black Knot on Plum and Cherry Trees,

#### (Assented to April 19, 1895.)

Be it enacted by the Lieutenant Governor and Legislative Preamble.

Assembly as follows:—

It shall be the duty of every occupant of land, or if the land Owner to cut
be unoccupied, it shall be the duty of the owner to cut out and black-knot.
burn all the Black Knot found on plum and cherry trees on his
land, so often each and every year as it shall appear on such trees.

2. The ratepayers in any school district in this Island shall at Inspector. the Annual School Meeting appoint an inspector if they deem it prudent, whose duty it shall be to enforce the provisions of this Act in the school district; and in case a vacancy shall occur, or in case no appointment shall be made at such school meeting, the trustees of any school district shall at any time appoint an inspector if they deem it prudent for the purpose aforesaid.

To give notice.

3. If written complaint be made to the inspector that Black Knot exists within the school district in any locality described in such complaint with reasonable certainty, he shall proceed to examine the fruit trees in such locality, and if satisfied of the presence of such disease he shall immediately give notice in writing to the owner or occupant of the land whereon the affected trees are growing, requiring him within five days from the recept of the notice to deal with such trees in the manner provided by section one of this Act.

Penalty.

4. Any owner or occupant of land who after notice given by the inspector, as provided for by section three, suffers any Black Knot to remain on plum or cherry trees, shall upon conviction be liable to a fine not exceeding ten dollars for every such offence, to be recovered and levied under the Provincial Summary Convictions Act or amendments thereto, before any justice of the peace, and all fines imposed shall be paid into the hands of the Secretary of School Trustees for the district, to be used subject to the order of the trustees, for the purposes of payment of the inspector and the enforcement of this Act.

