

Serial Number **1954/207**

**THE ROYAL NEW ZEALAND INSTITUTE OF HORTICULTURE
EXAMINATIONS APPROVAL NOTICE 1954**

NOTICE is hereby given that, pursuant to the Royal New Zealand Institute of Horticulture Act 1953, the Minister of Agriculture—

- (a) Approves of the schemes of training and examination submitted by the Examining Board of the Royal New Zealand Institute of Horticulture Incorporated with the authority of the said Institute for the granting of—
- (i) Seedsmen's Certificates as set out in the First Schedule hereto; and
 - (ii) Certificates in Vegetable Culture as set out in the Second Schedule hereto:
- (b) Declares that this approval shall come into force on the 1st day of January 1955.

SCHEDULES

FIRST SCHEDULE

**SCHEME OF TRAINING AND EXAMINATION OF CANDIDATES FOR SEEDSMAN'S
CERTIFICATE [S.C. (N.Z.)] OF THE ROYAL NEW ZEALAND INSTITUTE OF
HORTICULTURE INCORPORATED**

1. In this scheme, unless the context otherwise requires—
 - “Examining Board” means the Examining Board appointed by the Dominion Council of the Institute and approved by the Minister of Agriculture:
 - “Identification”, in relation to each of the commercial seeds, weed seeds, insect pests, or fungous pests which are of more or less general occurrence in New Zealand, means the assigning thereto of its correct common and scientific name:
 - “The Institute” means the Royal New Zealand Institute of Horticulture Incorporated.

Award of Seedsman's Certificate

2. The Institute, on the recommendation of the Examining Board, may issue a Seedsman's Certificate to a candidate who complies with all the conditions of the examination as hereinafter prescribed.

General Requirements

3. (1) The examination shall be open to candidates of either sex.
- (2) Before being eligible to qualify for a Seedsman's Certificate, a candidate shall comply with the following conditions:
 - (a) He shall register his name with the Institute:
 - (b) He shall, on registration, furnish evidence that he has secured the Primary School Certificate or a qualification which the Examining Board accepts as an equivalent or higher qualification; or he shall satisfy the Examining Board that he is competent to proceed with the examination of the Institute.

Conduct of Examinations

4. The examinations for the Institute's Seedsman's Certificate shall be held at such times and at such centres as may be decided by the Examining Board.

Examination Fees

5. Every candidate for examination at any examination for the Seedsman's Certificate conducted by the Institute shall pay to the Institute a fee of £2 2s. in respect of the whole examination or a fee of £1 1s. in respect of each part of the examination.

Subjects of Examination

6. The subjects of and requirements for the examination for the Seedsman's Certificate shall be—

PART A (WRITTEN)—2½ HOUR PAPER

- (1) *The Seed Trade*.—The extent and importance of the trade generally, its influence in promoting agriculture, horticulture, and arboriculture; the general history and prospects of the New Zealand trade; domestic, import, and export:
- (2) *Legislation*.—Legislation affecting the trade in New Zealand:
- (3) *Commercial Seeds*.—Identification of seeds used in vegetable gardening, flower gardening, and arboriculture; quality, purity, germination capacity, and potential plant type of such seeds; the means of obtaining and utilization of official tests; certification of these factors in New Zealand; differentiation between better and worse samples of such seeds; the times for sowing such seeds in New Zealand and especially in the candidate's district; the normal period of viability of the different kinds of such seeds, and the factors tending to increase or reduce that period; production of commercial seeds in New Zealand; kinds produced and districts of production, general methods employed in production, harvesting, and machine dressing:
- (4) *Weed Seeds*.—Identification of weed seeds; the general characteristics of the plants produced from the common weed seeds in New Zealand; the harmful effects of such plants in pastures, arable lands, lawns, and gardens:

- (5) *Gardening and Arboriculture*.—The main features in New Zealand of the preparation of land for growing the plants in common use in vegetable gardens, flower gardens, rock gardens, lawns, shrubberies, and tree plantations, and of the selection, propagation, manuring, pruning, cultivation, protection, and general treatment of such plants:
- (6) *Bulbs*.—The identification of bulbs and corms of all kinds, methods of cultivation, care, and propagation:
- (7) *Fertilizers*.—The identification of fertilizers, their principal contents and uses.
- (8) *Lawns*.—Their preparation, sowing, quantities and varieties of seeds suited to various types of soil; their maintenance, particularly from the angles of manuring and weed control:
- (9) *Storage of Seeds*.—Precautions to be taken and methods to be adopted to ensure that seeds are in fit condition for safe storage:
- (10) *Insect and Fungous Pests*.—Identification of insect and fungous pests of plants; the kinds of plants specially liable to attack by each of the common pests in New Zealand; the methods of application of the common remedies used for such pests; prescribing the appropriate remedies for such pests:
- (11) *Horticulture Appliances*.—The principal appliances, especially spraying apparatus and sundries used in New Zealand horticulture:

PART B (ORAL)

- (12) Oral examination in subjects numbers (3) and (11) specified in this clause:

PART C (PRACTICAL)

- (13) Practical examination in subjects numbers (3), (4), (5), (6), (7), (8), and (10) specified in this clause:
- (14) The candidate shall supply evidence to the satisfaction of the Institute that he has served for a period of five years in seedsman's work under a seedsman approved for the purpose by the Examining Board.

Pass Conditions

7. (1) Except where otherwise provided in this scheme, or in special cases at the discretion of the Examining Board, candidates shall enter for all parts of the examination at the same time:

Provided that, in the event of a candidate failing to pass the whole examination, he may submit himself for re-examination at such time and in such section or sections and with liability to such fees as the Examining Board may direct.

(2) The oral and practical examinations shall be conducted in conjunction with the practical test for the diploma examination of the Royal New Zealand Institute of Horticulture.

SECOND SCHEDULE

SCHEME OF TRAINING AND EXAMINATION OF CANDIDATES FOR CERTIFICATES IN VEGETABLE CULTURE [C.V.C. (N.Z.)] OF THE ROYAL NEW ZEALAND INSTITUTE OF HORTICULTURE INCORPORATED

1. In this scheme, unless the context otherwise requires,—

“Examining Board” means the Examining Board appointed by the Dominion Council of the Institute and approved by the Minister of Agriculture:

“Institute” means the Royal New Zealand Institute of Horticulture Incorporated.

Award of Certificates in Vegetable Culture

2. The Institute, on the recommendation of the Examining Board, may issue a Certificate in Vegetable Culture to a candidate who complies with all the conditions of the examination as hereinafter prescribed.

General Requirements

3. (1) The examination shall be open to candidates of either sex.

(2) Before being eligible to qualify for a Certificate in Vegetable Culture, a candidate shall comply with the following conditions:

(a) He shall register his name with the Institute:

(b) He shall, on registration, furnish evidence that he has secured the Primary School Certificate or a qualification which the Examining Board accepts as an equivalent or higher qualification; or he shall satisfy the Examining Board that he is competent to proceed with the examination of the Institute.

Conduct of Examinations

4. The examinations for the Certificate in Vegetable Culture shall be held at such times and at such centres as may be decided by the Examining Board.

Examination Fees

5. The fees payable by every candidate for examination for the Certificate in Vegetable Culture conducted by the Institute shall be 10s. in respect of each of the subjects numbered (1) to (5) in clause 6 of this Schedule and £1 in respect of the subject numbered (6) in that clause.

Subjects of Examination

6. The subjects of and requirements for the examination for the Certificate in Vegetable Culture shall be—

PART A (WRITTEN)

(1) *Business Aspects of Vegetable Culture:*

Bookkeeping: A knowledge of the elementary principles of bookkeeping and, with the use of the Growers' Account Book (which is the chief book used by the commercial gardener throughout the year)—banking and securities, credit transactions—a knowledge of common business practices in the industry; the student to show that he has an adequate knowledge to keep his own Grower's Account Book, although employing an accountant to prepare his balance sheet and tax returns:

Market Gardening Industry in New Zealand: Character; geographical distribution, and importance:

(2) *Soils and Soil Management:*

Soils: The origin and classification of soils; their chief constituents and physical properties (for example, their water holding power, porosity, capillarity, and texture); the chemical constituents of soil and of the soil solution; the functions of sand, silt, clay, peat, and humus in various forms; soil organisms, nitrification, decomposition of organic matter; the value of crops:

Soil Management:

Cultivation—the various methods of cultivation (ploughing, rotary hoeing, discing, rolling, etc.):

Drainage:

Watering and mulching:

Cover crops and temporary leys:

Irrigation: Methods and equipment used in applying water to outdoor and glasshouse crops:

Fertilizers and Manures:

Description, function, and use:

The physical and chemical properties of the various fertilizers available and of lime and its effect on the soil:

Deficiency Diseases: Recognition and prevention of the minor element deficiencies—boron, molybdenum, magnesium, etc.—in vegetable crops:

(3) *The Plant and Plant Breeding:*

How a Plant Functions: Cells; their structure and arrangement; stem and leaf structure; nutrition; transpiration; respiration; photosynthesis; reproduction:

Plant Propagation: The general methods of propagating vegetable plants outdoor and under glass:

Plant Breeding: Selection and saving of vegetable seed; seed certification; breeding, variety requirements; maintenance of varieties; pollination and its effect on pure seed production; cross-pollination; self-pollination; isolation; climate and soil requirements:

(4) *Principles and Practices of Plant Protection:*

Recognition and control of the diseases affecting vegetable crops; fungus; bacterial, virus, and physiological:

Recognition and control of insect pests affecting vegetable crops:

The effects of temperature, rainfall, humidity, and soil moisture on the incidence of insect pests and diseases in the open and under glass:

The means by which insect pests, fungus, virus, and bacterial diseases of plants are spread among host plants or from place to place:

A general knowledge of the principles associated with pest and disease control by sterilization with steam, heat, and chemicals; hot water treatment; chemical steeps and dips; sprays; dusts; fumigants; hygiene; crop rotation; plant resistance to disease; elimination of host weeds; soil management:

A general knowledge of the scheme operated by the Plant Diseases Division of the Department of Scientific and Industrial Research for the certification of therapeutants:

(5) *Vegetable Production:*

Commercial Vegetable Culture—Outdoor: Soil preparation for planting; varieties, sowing, planting, and general management; fertilizers, rotation and succession of crops; continuous production; control of weeds in market gardens:

Glasshouses, Frames and Cloches:

Siting, construction, ventilation, and heating:

Soil preparation for planting; varieties:

Planting and management; fertilizers:

Management of cold frames, hot beds, and cloches:

Harvesting, Storage, and Marketing of Vegetables: Factors influencing quality; nutritive value; harvesting; storage; preparation for market; grower-consumer relationship:

Equipment:

Implements and tractors for row-crop cultivation:

Spraying and dusting equipment:

Harvesting and grading equipment:

PART B (ORAL AND PRACTICAL)

(6) Propagation of vegetable plants outdoor and under glass:

Preparation of seed-sowing and pricking-out composts:

Preparation of seed beds and seed boxes:

Self-pollination and cross-pollination of vegetables:

Selection, extraction, and storage of vegetable seed:

Pricking out seedlings:

Planting vegetable crops:

Digging and trenching:

Identification of vegetable plants:

Identification and use of fertilizers:

Identification of common insect pests of vegetables:

Identification of common diseases of vegetables:

Use and care of market garden implements:

Staking and tying of vegetable plants.

General Conditions

7. (1) Subjects (1) and (2) specified in clause 6 of this Schedule may not be taken until the candidate has completed at least one year of satisfactory practical experience in a market garden.

(2) Subjects (3) and (4) specified in clause 6 of this Schedule may not be taken until the candidate has completed at least two years of satisfactory practical experience in a market garden.

(3) Subjects (5) and (6) specified in clause 6 of this Schedule may not be taken until the candidate has completed at least three years of satisfactory practical experience in a market garden:

Provided that the candidate may be admitted to any examination if he will have completed the required practical experience not more than four months after the time of the examination.

Dated at Wellington this 22nd day of November 1954.

K. J. HOLYOAKE,
Minister of Agriculture.

(Ag. 59/11/5)

EXPLANATORY NOTE

[*This note is not part of the notice, but is intended to indicate its general effect.*]

By this notice the Minister of Agriculture approves the scheme of examination submitted by the Examining Board of the Royal New Zealand Institute of Horticulture for the granting of Seedsmen's Certificates and Certificates in Vegetable Culture.

Issued under the authority of the Regulations Act 1936.

Date of notification in *Gazette*: 25 November 1954.

These regulations are administered in the Department of Agriculture.

(Notice No. Ag. 5787.)