

Apples, pears, peaches (including nectarines) apricots, plums, cherries, kiwifruit, citrus, raspberries, brambles, strawberries, grapes and such other crops as from time to time may be prescribed by the Examining Board.

- (13) *Machinery and Structures (Fruit Production)*—The types, selection, use and maintenance of tractors, machinery, implements and equipment used on orchards. The types, layout, construction and maintenance of grading, packing and storage buildings, fences, artificial shelters and fruit support structures. Concrete making and brick laying (a working knowledge only). Elementary surveying.

- (14) *Oral and Practical I (Fruit Production) (1 day—two 3-hour examinations)*—The candidate will be questioned about operations carried out on an orchard, and may be asked to demonstrate techniques used.

The care and use of tools, machines, implements and equipment (including those motor driven) used on orchards. Common orchard operations, for example, cultivation; planting; plant training and pruning, (including shelter); mowing; fertilising; orchard spraying; weed spraying; thinning; crop estimating; harvesting; grading; packing.

Orchard building layout, construction and maintenance. The identification and control of common pest damage and physiological disorders of fruit crops.

Fruit plant identification—botanical and common names, family, origin, methods of propagation.

Identification and control of common weeds.

- (15) *Fruit Crop Botany*—Factors affecting yield and their interaction.

The physiological basis of production practices such as the application of growth substances, nutrition, and pruning. Practical aspects of genetics and plant breeding as they relate to fruit crops.

- (16) *Fruit Production III*—The commercial production, harvesting and marketing of established and new fruit crops in New Zealand.

- (17) *Engineering (Fruit Production)*—Drainage and irrigation—legal requirements, suitable methods and equipment for orchard use, planning and design requirements, installation procedures, water supplies, pumps.

The construction of roads and pathways.

Building design and building materials. The design of orchard buildings, fruit support structures, artificial shelter and fences.

The design of frost protection equipment.

Basic welding techniques.

- (18) *Management (Fruit Production)*—The use of management procedures in orchards—including management objectives, information sources, planning and decision making and financial control techniques, the use of land, labour and capital, budgeting, record keeping, accounting and monitoring the production programme.

Labour organisation and management.

Staff training. Commercial and other laws affecting orcharding.

Project costing, development budgeting and machinery replacement.

Use of computers in orchards.

- (19) *Project*—A report on a topic of the candidate's choice, subject to the requirements in clause 7 (12). The report should be approximately 3000 words in length, and of a standard suitable for submission to a horticultural journal.

- (20) *Oral and Practical Examination II (Fruit Production)*—(1 day—two 3-hour examinations)—A more advanced knowledge of subject 14 topics.

The candidate must submit a plan (own work) of an ideal orchard growing a range of fruit for discussion on planning, design and layout.

- (21) *Thesis*—As prescribed in clause 8 of this scheme.

### THIRD SCHEDULE

SCHEME FOR THE EXAMINATION OF CANDIDATES FOR THE NATIONAL CERTIFICATE IN HORTICULTURE (VEGETABLE PRODUCTION), THE NATIONAL DIPLOMA IN HORTICULTURE (VEGETABLE PRODUCTION), AND THE NATIONAL DIPLOMA IN HORTICULTURE WITH HONOURS (VEGETABLE PRODUCTION) OF THE ROYAL NEW ZEALAND INSTITUTE OF HORTICULTURE INCORPORATED

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

“Certificate” means the National Certificate in Horticulture (Vegetable Production) granted by the Institute.

“Diploma” means the National Diploma in Horticulture (Vegetable Production) granted by the Institute.

“Diploma with Honours” means the National Diploma in Horticulture with Honours (Vegetable Production) granted by the institute.

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

“Identification” in relation to each of plants, weeds, insects, diseases and other pests which occur in New Zealand, means the assigning thereto of its scientific name and a commonly used name.

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

“Practical Experience” means horticultural employment approved by the Examining Board.

“Pest” means any mammal, bird, arthropod, mollusc, nematode or other worm, fungus, bacterium, virus or mycoplasma injurious to horticultural plants.

“Planthouse” means any glasshouse, greenhouse, shade house or similar structure in which plants are grown.

“Vegetables” means asparagus, artichokes (Jerusalem and globe), beans, beetroot, broccoli, Brussell sprouts, cabbage, carrots, cauliflower, celeriac, celery, chicory, cress, cucumbers, early potatoes, eggplants, garlic, gherkins, herbs (parsley, mint, sage, thyme and chives), horse radish, kumeras, leek, lettuce, marrow, melon (musk, rock and water), mushrooms, mustard, onions, parsnips, peas, peppers, pumpkins, radishes, rhubarb, salsify, scorzonera, seakale, shallots, silverbeet, spinach, squash, swedes, sweet corn, tomatoes, turnips and any other kind of vegetable that the examining board may from time to time declare to be vegetables for the purpose of this Schedule.

“Vegetable producing unit” means any area of land, be it protected or unprotected, on which vegetables are grown for the purpose of producing vegetables for sale for ultimate human consumption.

“Vegetable production” means growing any type of vegetable under protective cover or in the open for sale for ultimate human consumption.

“Weed” means a plant growing where it is not wanted.

### *Award or Certificate, Diploma and Diploma with Honours*

2. The Institute, on the recommendation of the Examining Board, may issue to a candidate who complies with all the conditions and requirements herein prescribed:

- (a) A Certificate to a candidate who has passed all the subjects 1 to 14 listed in 3 (1);
- (b) A Diploma to a candidate who has passed all the subjects 1 to 20 listed in 3 (1);
- (c) A Diploma with Honours to a candidate who has passed all the subjects 1 to 21 listed in 3 (1).

### *Subjects of Examination*

3. (1) The subjects for the Certificate, Diploma and Diploma with Honours examinations shall be:

- (1) Horticultural Botany
- (2) Plant Pests and Disorders
- (3) Soil Properties and Processes
- (4) Horticultural Practices
- (5) The Vegetable Industry in New Zealand
- (6) Weed Control and Horticultural Chemicals
- (7) Soil Management
- (8) Vegetable Production I
- (9) Work Record Report
- (10) Horticultural Plant Science
- (11) Plant Protection (Vegetable Production)
- (12) Vegetable Production II
- (13) Machinery and Structures (Vegetable Production)
- (14) Oral and Practical Examination I (Vegetable Production)
- (15) Vegetable Crop Botany
- (16) Vegetable Production III
- (17) Engineering (Vegetable Production)
- (18) Management (Vegetable Production)
- (19) Project
- (20) Oral and Practical Examination II (Vegetable Production)
- (21) Thesis

(2) The oral and practical examinations shall be combined, and shall be designed to test the candidate's practical ability in horticulture and appreciation and understanding of horticultural operations and activities normally carried out on vegetable producing units.

(3) Each of the subjects 1 to 8, 10 to 13, and 15 to 18 shall each be examined by one 3-hour written examination.

(4) Candidates must demonstrate a knowledge of safe practices in all examinations.

### *Conduct of Examinations*

4. The examinations for the Institute's Certificate, Diploma and Diploma with Honours shall be held at such times and at such centres as shall be decided by the Examining Board. All examinations