

**(4) Horticultural Practices**

Safety on horticultural properties.

The scope and location of amenity and commercial horticultural production in New Zealand.

Measures used to improve environmental conditions for horticultural plant growth.

Introduction to plant propagation (methods—sexual and asexual propagation; propagation media and equipment).

Principles of plant pruning and training.

Amenity, orchard, vegetable production, nursery and floricultural practices throughout the year. (A detailed knowledge of crop production is NOT required. However candidates should demonstrate a general knowledge of the type of work and equipment on different types of horticultural properties.)

Elementary record keeping, including diaries and specimens.

**(5) Plant Classification**

Systematic botany and taxonomy. Elementary knowledge of horticultural nomenclature and botanical terms used in classification.

Plant identification. Use of simple keys.

A general outline of the classification and diversity of plants with emphasis on important horticultural families. Candidates shall be required to classify horticultural plants according to a classification system approved by the Examining Board. (In each case the candidates will be expected to know the general characteristics of plant families, to have studied closely one or two examples of each and to be able to refer to some of the more important genera and species cultivated in gardens. Examiners will bear in mind that some examples may not be common in all districts. Candidates will not be expected to know in infinite detail all the characters of each family, but rather those which would enable them as horticulturists to recognise certain family characters.)

**(6) Weed Control and Horticultural Chemicals**

Weed identification. Weed control principles.

Legislation relating to weed control.

Herbicides and their uses.

(Candidates should demonstrate a good knowledge of weed control practices suitable for the type of property they are working on.)

Chemicals used for plant protection purposes—formulation, mode of action and use. Legislation governing the storage and use of plant protection chemicals.

**(7) Soil Management**

Soil water management—drainage and irrigation principles. (A detailed knowledge of specific equipment and installation and operating procedures is NOT required.)

Soil and plant nutrient testing.

Fertilisers and their use.

Soil tillage.

Suitability and management of soils for horticultural use.

**(8) Amenity Horticulture I**

A general knowledge of trees and shrubs commonly used for amenity, urban forestry, hedging and shelter including transporting, planting, transplanting, general management, pruning and tree surgery. The use and cultivation of annual, biennial and perennial plants, and the provision of seasonal displays.

The preparation, sowing and laying, and maintenance of turfed areas.

The cultivation of ornamental plants in plant houses.

**(9) Work Record Report**

Candidates must submit to the Examining Board a copy of the diary entries they have made over any 12-month period of the candidate's choice.

Candidates shall also present a property report of a type and in a form as required by the Examining Board.

**(10) Vegetable and Fruit Culture**

The culture, harvesting and storage of common home garden grown fruits and vegetables including the selection of suitable cultivars and crop management practices.

NOTE—Candidates should demonstrate they are able to answer the type of question a home gardener may ask about the culture of fruit and vegetable crops grown in New Zealand home gardens. A detailed knowledge of commercial production techniques is NOT required.

**(11) Plant Protection (Amenity Horticulture)**

The control of common pests of amenity plants and turf grown both outdoors and under cover, including a knowledge of ecology, life histories and host-parasite relationships. Pest management.

The design of spray schedules for amenity plantings and turf.

The correction of common physiological disorders of turfed areas and amenity plants.

**(12) Amenity Horticulture II**

The propagation of plants used for amenity purposes including methods, media and conditions necessary for successful propagation. The use of rootstocks for amenity plants. Seed collection and storage.

Plant-house management.

Selection and use of shelter plants for amenity purposes. Elementary surveying and levelling. Equipment and methods for determining areas, levels and grades. Labour supervision and the organisation of labour.

**(13) Horticultural Machinery and Structures (Amenity Horticulture)**

The types, selection, use and maintenance of machinery and equipment used in amenity horticulture.

The types, construction and maintenance of plant-houses, simple buildings, fences and artificial shelters.

Concrete making. Block and brick laying (a working knowledge only).

The types, selection, use and maintenance of machinery and equipment used for controlling the plant-house environment.

**(14) Oral and Practical Examination (Amenity) (1 day—two 3-hour examinations)**

The care and use of tools, machines and implements (including those motor driven) used in amenity horticulture. The care and use of plant-house equipment.

Common amenity horticultural operations, for example, preparing media; seed sowing; pricking out; hardening off; potting up and potting on; care of plant-house plants; digging and other forms of cultivation; lining out; planting; transplanting; wrenching; preparing seed beds; staking and tying plants; propagation of common plants; pruning trees and shrubs, hedges and shelter; tree surgery; preparing, sowing, turfing and maintaining lawns; planning and implementing seasonal display outdoors and in plant-houses.

Fruit and vegetable culture (not commercial production). Plant-house construction and maintenance.

The identification and control of common pest damage and physiological disorders of amenity plants.

Amenity plant identification—botanical and common names, family, origin, methods of propagation and use in horticulture.

Identification and control of common weeds.

Simple methods of determining areas grades and levels.

**(15) Horticultural Plant Science**

Assimilation—photosynthesis, translocation, mobilisation. Plant growth and development—juvility, senescence, flowering, fruiting dormancy. Hormonal control of plant growth (including the effects of the application of growth substances).

Mineral nutrition and deficiency symptoms.

Respiration.

Transpiration.

Environmental influences on plant growth including wind, light, temperature and water availability.

Plant ecology in sufficient detail to demonstrate the principles of plant growth in controlled environments.

THE EXAMINATION WILL TEST A CANDIDATE'S ABILITY TO RELATE BOTANICAL PRINCIPLES TO HORTICULTURE.

**(16) Amenity Horticulture III**

History, functional and aesthetic principles of garden design.

Drawing up site plans, planting plans, and construction details for landscape features including retaining and ornamental walls, ponds, rock gardens, paved areas, pergolas and steps. Preparing estimates.

Implementing a landscape design.

Plant formations in New Zealand and their horticultural significance. Revegetation and native bush management.

The garden as a plant community. Advanced knowledge of aboriculture and amenity turf culture.

**(17) Horticultural Engineering (Amenity Horticulture)**

Drainage and irrigation—legal requirements, suitable methods and equipment for amenity situations, planning and design requirements, installation procedures, water supplies, pumps.

The construction of roads and pathways.

Horticultural building design and building materials.

The design of plant-houses, simple buildings, artificial shelter and fences.

The design of frost protection equipment.

Lighting practices suitable for amenity horticulture.

The selection, design and management of systems for modifying plant-house environments.

The automatic control of such systems.

Basic welding techniques.