

National Unit Specification: General Information

UNIT Protected Crop Production - Pot Plants (Higher)

NUMBER D884 12

COURSE

SUMMARY

This unit will enable the candidate to develop the skills and knowledge required to produce a range of pot plants in protected structures.

OUTCOMES

- 1 Identify the range of containers and composts suitable for producing pot plants.
- 2 Identify a range of benching for staging plant.
- 3 Use manual and automatic methods of watering and feeding pot plants.
- 4 Describe the production systems for a range of pot plants.
- 5 Produce a range of pot plants.

RECOMMENDED ENTRY

It would be beneficial if the candidate had achieved the following units: 88211 Plant Production from Seed; 90811 Vegetative Propagation; 68191 Rooting, Seed and Potting Compost; 78151 Protected Environment: Sites and Structures.

CREDIT VALUE

1.0 Credit at Higher.

CORE SKILLS

Information on the automatic certification of any core skills in this unit is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

Administrative Information

Superclass: SD

Publication date: December 1998

Source: Scottish Qualifications Authority

Version: 02 (*Version 01 is National Certificate Module 78198*)

© Scottish Qualifications Authority 1999

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Additional copies of this specification can be purchased from the Scottish Qualifications Authority. The cost is £2.50.

National unit specification: statement of standards

UNIT Protected Crop Production: Pot Plants (Higher)

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Identify the range of containers and composts suitable for producing pot plants.

Performance Criteria

- a) A suitable container is chosen for the selected pot plants.
- b) Appropriate compost is correctly selected for the pot plants.
- c) The reasons for each choice are correctly explained.

Note on range for the outcome

The pot plants are to be selected from the following categories: foliage; short term flower crop; bulbs; cacti; evicaceous.

Evidence Requirements

Evidence for this outcome can be provided in written and/or oral format. Two plants are to be selected from each of the categories listed in the range.

OUTCOME 2

Identify a range of benching for staging plants.

Performance Criteria

- a) The types of benching materials available are clearly described.
- b) The cost per square metre of the different materials is clearly established.
- c) The advantages and disadvantages of each type of material are clearly explained.
- d) The effective use of space is clearly described.

Evidence Requirements

Evidence of achievement for this outcome can be provided in a written format.

OUTCOME 3

Use manual and automatic methods of watering and feeding pot plants.

Performance Criteria

- a) A stock solution of nutrients is correctly prepared.
- b) Water is correctly applied in accordance with the type of plant and application method.
- c) The diluter injector is correctly set in accordance with the feeding method.
- d) The watering and feeding equipment is used effectively.

Evidence Requirements

Evidence for this outcome can be provided in the form of a practical exercise.

National unit specification: statement of standards (cont)

UNIT Protected Crop Production: Pot Plants (Higher)

OUTCOME 4

Describe the production systems for a range of pot plants.

Performance Criteria

- a) The methods of propagation are clearly described.
- b) Growing-on procedures are correctly explained.
- c) The stage and time for marketing are correctly identified.
- d) Suitable environments are correctly identified.

Evidence Requirements

Evidence for this outcome can be provided in a written and/or oral format.

OUTCOME 5

Produce a range of pot plants.

Performance Criteria

- a) Pot plants are correctly propagated and grown-on if required.
- b) The plants are correctly staked.
- c) Cultural details are correctly carried out.
- d) The plants are correctly spaced on benches.

Evidence Requirements

Evidence for this outcome can be provided in the form of a practical exercise.

National unit specification: support notes

UNIT Protected Crop Production: Pot Plants (Higher)

This part of the unit specification is offered as guidance. None of the sections of the support notes is mandatory.

GUIDANCE ON CONTENT AND CONTEXT

1 This should include: pots, strips, trays, bowls, plugs, modular growing systems, seed trays and boxes - not only of different sizes but also of different qualities.

The main functions of the bulk ingredients of composts, (loam, sand, peat and peat substitutes, perlite), and how these are used to produce loam based and loamless composts for rooting, sowing, potting and blocking.

A range of fertiliser rates should be given (where appropriate), for reference purposes - these should include proprietary brands.

2 This should include: the use of slatted, solid, weldmesh, sand/matting, irrigated, flood, and mobile types. The importance of high utilisation of floor space should be emphasised.

3 The use of water meters, hand lances, time clocks (in addition to sandbeds/matting covered at 2), diluters and/or injectors should be emphasised. Automatic and hand watering feeding should be directly compared.

4 Methods of production and marketing for a range of pot plants. Changes which have taken place over recent years.

5 A range of six pot plants should be produced and these should reflect the main marketing periods.

GUIDANCE ON TEACHING AND LEARNING APPROACHES

Visits to a commercial nursery and a leisure and recreation department producing pot plants should develop the candidates' appreciation of the diversity of techniques used in producing these plants. Questionnaires produced by the instructor relating to the outcomes should be completed during and after the visits, and these should help to supplement class notes.

All eight chosen crops should be produced by candidates who should carry out as much of the associated practical work as possible.

National unit specification: support notes (cont)

UNIT Protected Crop Production: Pot Plants (Higher)

Relating to the outcomes:

Outcome 1

Achieved through visits and discussion and by candidates collecting trade leaflets.

Candidates should handle samples of the main ingredients in wet and dry stages and compare their water holding capacity and compression characteristics. From this, draw conclusions as to the advantages of mixing bulk material in differing quantities. The preparation and mixing of one type of compost.

Outcome 2

Using a range of different types of bench to produce plants should illustrate the characteristics of each type of bench.

Outcome 3

Candidates should be taught irrigation and feeding methods for pot plants.

Outcome 4

Candidates should be taught the production systems for a range of pot plants.

Outcome 5

Could be achieved by growing the chosen crops, with the help of back up notes from the instructor.

GUIDANCE ON APPROACHES TO ASSESSMENT

Outcome 1

Written exercise

Outcome 2

Folio based on available trade information on a range of benching materials for staging plants.

Outcome 3

Practical exercise used with observation checklist – the candidate is required to water and feed a range of pot plants using manual and automatic methods.

National unit specification: support notes (cont)

UNIT Protected Crop Production: Pot Plants (Higher)

Outcome 4

Short answer test consisting of 10 questions.

Outcome 5

Practical exercise used with observation checklist – the candidate assists in the production of 6 pot plants and bulbs, crops for market or decoration.

SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements* (SQA, 1998).