

## National Unit Specification: general information

<b>UNIT</b>	Crop Production: An Introduction (Intermediate 1)
<b>CODE</b>	DX12 10
<b>COURSE</b>	Rural Skills (Intermediate 1)

### SUMMARY

This Unit is an optional Unit within the *Intermediate 1 Rural Skills Course* and is designed to be taken as part of this Course. It is suitable for candidates with no previous land-based or employment experience. The Unit allows candidates to develop some of the basic skills and knowledge required to contribute towards the production of a crop in a work setting. Candidates will have the opportunity to develop the basic skills of preparing the growing medium, establishing and maintaining the crop. This Unit has been designed for delivery in context for one or more crop species and to be delivered in a work or simulated work setting. Crops may be agricultural, forestry, horticultural, edible or non-edible.

### OUTCOMES

- 1 Assist with preparing the site/growing medium and establishing a selected crop.
- 2 Assist with maintaining healthy growth of a selected crop.
- 3 Demonstrate knowledge and understanding in relation to selecting, establishing and maintaining a selected crop.

### RECOMMENDED ENTRY

Entry is at the discretion of the centre.

### CREDIT VALUE

1 credit at Intermediate 1 (6 SCQF credit points at SCQF level 4\*).

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

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#### Administrative Information

<b>Superclass:</b>	SK
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## **National Unit Specification: general information (cont)**

### **UNIT**     Crop Production: An Introduction (Intermediate 1)

#### **CORE SKILLS**

There is no automatic certification of Core Skills in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches for this Unit*.

## **National Unit Specification: statement of standards**

### **UNIT     Crop Production: An Introduction (Intermediate 1)**

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**

Assist with preparing the site/growing medium and establishing a selected crop.

##### **Performance Criteria**

- (a) Assist with preparing the site/growing medium for growing the crop.
- (b) Assist with establishing the crop in the growing medium.
- (c) Demonstrate safe working practices.

#### **OUTCOME 2**

Assist with maintaining healthy growth of a selected crop.

##### **Performance Criteria**

- (a) Assist with monitoring the progress and health of the crop.
- (b) Assist with procedures to maintain the healthy growth of the crop.
- (c) Demonstrate safe working practices.

#### **OUTCOME 3**

Demonstrate knowledge and understanding in relation to selecting, establishing and maintaining a selected crop.

##### **Performance Criteria**

- (a) State the reason for growing the selected crop.
- (b) State basic requirements for growth of the selected crop.
- (c) Identify the stages of production of the selected crop.
- (d) Identify signs of damage or disease to the selected crop.

## National Unit Specification: statement of standards (cont)

### UNIT Crop Production: An Introduction (Intermediate 1)

#### EVIDENCE REQUIREMENTS FOR THIS UNIT

Performance evidence supported by an assessor observation checklist together with written and/or recorded oral evidence is required to show that all Outcomes and Performance Criteria have been achieved.

Evidence must be gathered in an appropriate context where crops are kept in working environments or simulated working environments.

**In relation to Outcomes 1 and 2** evidence is required in relation to **one or more crop/s** from the following categories:

- ◆ arable crops
- ◆ silage and fodder crops
- ◆ biomass energy crops
- ◆ field-grown vegetables
- ◆ field-grown fruit
- ◆ protected edible crops
- ◆ protected non-edible crops
- ◆ ornamental nursery stock
- ◆ bedding plants
- ◆ forestry tree nurseries

The assessor observation checklist confirms that the candidate has:

- ◆ assisted with preparing the site
- ◆ assisted with establishing the crop
- ◆ assisted with monitoring the health and progress of the crop
- ◆ assisted with maintaining the healthy growth of the crop
- ◆ demonstrated safe working practices throughout

**In relation to Outcome 3**, evidence must relate to only one crop from the above list. Written and/or oral evidence should be noted in a record sheet, and should include:

- ◆ a statement of the reason for growing the crop
- ◆ a statement of the basic requirements of one crop
- ◆ identification of the stages of production of this crop
- ◆ identification of signs of damage or disease to this crop

The item for this Unit contains an assessor observation checklist and a record sheet for the written or recorded oral evidence. The NAB illustrates the national standard required for this Unit. Centres who wish to devise their own assessments should refer to the NAB to ensure a comparable standard.

## National Unit Specification: support notes

### UNIT Crop Production: An Introduction (Intermediate 1)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

#### GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is designed to allow the candidate to develop the basic skills required to contribute towards the production of plants on a large-scale setting. The word crop has therefore been used to place the Unit in context. Crops may be grown in organic or intensive systems. It is envisaged that this Unit can be delivered in the context of one or more crop species from the following categories:

- ◆ arable crops
- ◆ silage and fodder crops
- ◆ biomass energy crops
- ◆ field-grown vegetables
- ◆ field-grown fruit
- ◆ protected edible crops
- ◆ protected non-edible crops
- ◆ ornamental nursery stock (production of liners from cuttings and potting on liners can be considered distinct crops)
- ◆ bedding plants
- ◆ forestry tree nurseries

It is important that learning takes place involving a crop in either a work setting or simulated work setting. Partnerships with land-based colleges, training providers or employers are likely to provide the most appropriate settings. Candidates should experience working with crops, the associated working environment and the effects on their senses (smells, dirt, ambient temperatures and noise levels). **It is important that the deployment of appropriate learning environments is preceded by a valid risk assessment by the centre, particularly identifying any protective clothing and equipment that the candidate may require. Risks associated with the operation of machinery and pesticides should be assessed thoroughly.**

The practical elements of this Unit should be delivered through the candidate's contribution to the production of a commercial crop. However, in some cases it will not be possible to generate all the evidence in the context of one crop. It is therefore acceptable for candidates to generate this evidence in the context of more than one crop.

#### Outcome 1

Candidates should help with operations to prepare the site and plant the crop. Site might mean field, smallholding (including crofts), glasshouse, etc. depending on the crop and growing system selected. The particular operations will vary depending on the crop and growing system. For instance in an organic smallholding it may involve manual operations to clear the site and cultivate it, whereas in intensive mechanised crops it may be limited to helping to select and set machinery, and inspecting of operations. In containerised crops it may include collating containers and media.

## **National Unit Specification: support notes (cont)**

### **UNIT     Crop Production: An Introduction (Intermediate 1)**

Establishing the crop includes sowing, planting, or preparing cuttings depending on the crop. The level of involvement may vary from hand planting to calibration and monitoring of machinery depending on the crop and the method of establishment.

#### **Outcome 2**

Candidates should be involved in monitoring the crop to ascertain its progress and health. Wherever, possible, the candidate should assist in harvesting operations. The level of assistance will depend on the crop and growing system and it is recognised that the constraints of season may be an issue for delivery of this element. They should assist in routine maintenance operations (eg irrigation, staking, pest and disease control) of the crop.

Throughout, candidates should be made aware of the importance of safe working practices and individual responsibility for safe working and adherence to legislation governing health and safety and the use of chemicals, paying particular attention to relevant COSHH Regulations.

#### **Outcome 3**

This Outcome should cover the knowledge and understanding for one crop only and is designed to give candidates an understanding of the skills that they are developing.

Consideration of the basic requirements of crops should include reference to growing medium (type, fertility, moisture holding capacity); environment (temperature, length of growing season; light; rainfall; water supply and factors that influence the incidence of pests and diseases).

Description of the stages in production of a crop should cover preparation, establishment, and harvesting. Candidates should understand the timescales of production for the selected crop but are not expected to have a detailed understanding of the biological development of the plant. It would be useful for candidates to be aware of the criteria used to determine when the crop is ready for harvesting

Monitoring of crops should include recognising signs of unacceptable growth or ill health in the crop but candidates should not be expected to recognise specific diseases of the crop.

### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

It would be useful for all three of the Outcomes to have some classroom theoretical input prior to undertaking the practical activities. The candidates should also be thoroughly briefed on health and safety practices before entering the real or simulated working environment. The practical skills of Outcomes 1 and 2 can then be demonstrated and practised in a work setting or simulated work setting. Ideally, partnerships with land-based colleges would be appropriate but training providers or employers may also offer suitable opportunities.

Emphasis is placed on experiential learning with candidates undertaking or observing operations in preparing the site and establishing the crop. Coaching/mentoring should explain the reasons for particular operations.

## National Unit Specification: support notes (cont)

### UNIT Crop Production: An Introduction (Intermediate 1)

#### Employability Skills

On completion of this Unit, the candidate will have had the opportunity to develop the following employability skills:

- ◆ acceptable time keeping and attendance
- ◆ planning and preparing for work
- ◆ working co-operatively with others
- ◆ using resources efficiently
- ◆ following instructions\*
- ◆ working safely\*
- ◆ self review and evaluation

Achievement in a number of these employability skills (those marked with an asterisk\*) will be clearly identified as a result of the evidence generated through the assessment activities for this Unit. There are opportunities in the Unit to develop the remaining skills.

**Tasks undertaken in Outcomes 1 and 2 provide ideal opportunities to complete the review sheets of the *Employability Skills Unit of the Intermediate 1 Rural Skills Course*.**

#### Core Skills

In this Unit candidates will be involved a range of practical tasks which may well involve working as part of a small team, and will also gather and present information in written or oral format. These are good opportunities for developing aspects of:

- ◆ Working with Others
- ◆ Communication (oral or written)
- ◆ Problem Solving

### GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Performance evidence supported by an assessor observation checklist is required to show that all Outcomes and Performance Criteria have been achieved.

The assessor checklist should be used to record that the candidate has completed the tasks identified to a satisfactory standard. The candidate record sheet will help candidates provide evidence of their knowledge and understanding of selecting, establishing and maintaining their selected crop.

The standard to be applied is exemplified in the National Assessment Bank item for this Unit. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

### CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* ([www.sqa.org.uk](http://www.sqa.org.uk)).