**National Unit Specification: general information**

**UNIT**     Tree and Shrub Planting (SCQF level 4)

**CODE**     D903 10

## SUMMARY

This Unit will enable candidates to describe and carry out the procedures required to plant bare rooted, containerised and container grown trees and shrubs. Candidates will be given an overview of the different ways in which trees and shrubs can be supplied, when and how they can be planted correctly and the tasks involved in initial maintenance following planting. This Unit is applicable to candidates involved in Horticulture, greenkeeping and other land based industries.

## OUTCOMES

1   Describe lifting procedures for trees and shrubs.
2   Plant bare-rooted trees and shrubs.
3   Plant container-grown trees and shrubs.
4   Describe post-planting maintenance of trees and shrubs.

## RECOMMENDED ENTRY

Entry is at the discretion of the centre.

## CREDIT VALUE

1 credit at SCQF level 4 (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**

**Superclass:**     SG

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**Version:**     01

# National Unit Specification: general information (cont)

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## CORE SKILLS

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit Specification.

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

# National Unit Specification: statement of standards

## UNIT          Tree and Shrub Planting (SCQF level 4)

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 SQA.

## OUTCOME 1

Describe lifting procedures for trees and shrubs.

### Performance Criteria

(a)  Describe correctly the lifting techniques for open-ground grown trees and shrubs with respect to given specifications.
(b)  Describe accurately the treatment of lifted plant material with respect to removal of damaged roots and maintenance of root: shoot ratio.
(c)  Describe correctly the storage methods for trees and shrubs between lifting and replanting with respect to normal weather conditions.

## OUTCOME 2

Plant bare-rooted trees and shrubs.

### Performance Criteria

(a)  The preparation of trees and shrubs for planting is carried out according to accepted procedures.
(b)  The preparation of the planting site is carried out according to accepted procedures.
(c)  The planting process is carried out according to accepted procedures.

## OUTCOME 3

Plant container-grown trees and shrubs.

### Performance Criteria

(a)  The preparation of trees and shrubs for planting is carried out according to accepted procedures.
(b)  The preparation of the planting site is carried out according to accepted procedures.
(c)  The planting process is carried out according to accepted procedures.

## OUTCOME 4

Describe post planting maintenance of trees and shrubs.

### Performance Criteria

(a)  Describe accurately the main procedures carried out following the planting of trees and shrubs.
(b)  Carry out correctly the practical post planting maintenance operations of trees and shrubs according to accepted procedures.

# National Unit Specification: statement of standards (cont)

## UNIT    Tree and Shrub Planting (SCQF level 4)

### EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

**All relevant operational procedures undertaken in this Unit must adhere to current legislation, regulations, codes of practice and manufacturers' recommendations where appropriate.**

### Outcome 1 — Written and/or recorded oral evidence

Written and/or recorded oral evidence of the candidate's ability to produce descriptions as detailed in Performance Criteria (a)–(c)

### Outcome 2 — Performance evidence

The candidate must:

♦   prepare bare rooted plant material (trees and shrubs) for planting correctly
♦   prepare the plating site correctly
♦   plant bare rooted trees and shrubs correctly

### Outcome 3 — Performance evidence

The candidate must:

♦   prepare container grown plant material (trees and shrubs) for planting correctly
♦   prepare the plating site correctly
♦   plant container grown trees and shrubs correctly

### Outcome 4 — Written and/or recorded oral evidence and performance evidence

Written and/or recorded oral evidence of the candidate's ability to produce descriptions as detailed in Performance Criterion (a).

Performance evidence should be provided for Performance Criterion (b).

Satisfactory achievement of the Outcomes will be based on all the Performance Criteria being met.

Centres must be satisfied that the evidence submitted is the work of individual candidates.

# National Unit Specification: support notes

## UNIT      Tree and Shrub Planting (SCQF level 4)

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 is an optional Unit within the National Certificate in Greenkeeping at SCQF level 5, but may also be taken as a free-standing Unit.

Safety regulations and safe working practices and procedures should be adhered to at all times.

This Unit is aligned to the following Lantra, Sector Skills Council's National Occupational Standard (NOS) Units:

(L2)           Establish plants outdoors
(CU2)        Monitor and Maintain Health and Safety
(L27)         Use and maintain equipment and machines
(CU5)        Develop personal performance and maintain working relationships

This Unit has been designed to give candidates a good understanding of the ways in which trees and shrubs can be supplied, and the correct way of planting and caring for them. It combines relevant theory with practical work enabling the candidate to plant a variety of plants in the correct manner at the correct time of year.

### Outcome 1

This Outcome covers the ways in which field grown (open grown) trees and shrubs are lifted.

It is recommended that reference should be made to:

♦ Seasonality
♦ Different sizes of nursery stock from forestry seedling to semi mature
♦ Deciduous trees and shrubs
♦ Evergreen trees and shrubs
♦ Rootballing
♦ Weather conditions
♦ Removal of damaged roots and branches
♦ Root: shoot ratio
♦ Protection of lifted material
♦ Prevention of desiccation of roots and foliage
♦ Transport of lifted material
♦ Shuching and heeling in
♦ Temporary storage until planting area is ready

# National Unit Specification: support notes (cont)

## UNIT  Tree and Shrub Planting (SCQF level 4)

**Outcome 2**

This Outcome refers to the practical plating of bare rooted trees and shrubs.

It is recommended that reference should be made to the following:

♦ Preparation of planting area.
♦ Addition of fertiliser and soil ameliorants
♦ Digging planting hole to correct depth
♦ Care of bare rooted material prior to planting to avoid roots drying out
♦ Planting to correct depth and firming in
♦ Providing support as required
♦ Removing any dead, diseased or dying parts of the plant
♦ Return clean tools to storage area

**Outcome 3**

This Outcome refers to the practical planting of container grown trees and shrubs.

It is recommended that reference should be made to the following:

♦ Time of year appropriate for planting
♦ Preparation of planting area.
♦ Addition of fertiliser and soil ameliorants
♦ Digging planting hole to correct depth
♦ Care of plant material prior to planting
♦ Signs of being pot bound
♦ Signs of nutrient deficiency, weeds in pots etc.
♦ Reference to containerised and container grown stock
♦ Preparation of planting area
♦ Planting to correct depth and firming
♦ Providing support as required
♦ Removing any dead, diseased or dying parts of the plant
♦ Return clean tools to storage area

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**Outcome 4**

This Outcome covers the theory and practical tasks involved in the maintenance of trees and shrubs after planting.

It is recommended that the following should be covered:

♦    Watering as required
♦    Applying a mulch layer
♦    Applying fertiliser
♦    Weed control measures
♦    Protection of young tree bark from grazing animals
♦    Checking and adjusting tree ties and stakes
♦    Replacement planting
♦    Formative pruning

## GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

This Unit combines practical planting with the theory of good practice. It is recommended that candidates should view a range of plant material including:

♦    Bare rooted deciduous trees and shrubs
♦    Rootballed conifers and evergreen shrubs
♦    Containerised plants
♦    Container grown plants

The seasonality and times of year for planting bare rooted and other material should be discussed as well as the influence of waterlogged and frozen soil conditions on the planting process.

The advantages and disadvantages of bare rooted, container grown and containerised materials should be discussed. Good practice should be followed at all times including planting techniques, eg:

♦    Notch planting
♦    Individual planting holes
♦    Tree pits
♦    Nursery mark, correct depth etc
♦    Tree spades for semi mature trees

Plant support could cover:

♦    Tree shelters
♦    Stakes and ties
♦    Underground guying
♦    Above ground guying

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Post planting maintenance could cover:

♦   Watering in
♦   Mulching materials
♦   Fertiliser
♦   Weed control — cultural, physical and chemical
♦   Checking plants are growing during the growing season after planting whilst dormant

Candidates will gain great benefit from practically carrying out these operations.

Other teaching resources which could be used are, nursery catalogues and a visit to a tree production area, internet based study, live plant material, class lectures, visiting speakers, or a visit to a landscaping site where trees and shrubs are being planted or maintained.

**OPPORTUNITIES FOR CORE SKILL DEVELOPMENT**

In the Unit, there are opportunities for candidates to develop aspects of the Core Skill Units:

♦   *Communication* (SCQF level 3) through reading nursery catalogues, hand outs and plant labels
♦   *Working with Others* (SCQF level 3) through practical work carried out

Organisational skills can be developed through planning and implementing the planting process by ensuring all tools and materials are on site and ready for use.

**GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

**Outcome 1**

For Outcome 1, it is recommended that candidates should be presented with assessments designed to test their knowledge of lifting bare rooted trees and shrubs. The instruments of assessment could be short answer written questions. Alternatively the candidate could be asked to produce a report summarising the practical work which they have undertaken which must include all the main stages involved. Each method of assessment must generate evidence which shows that the following Performance Criteria have been met, namely:

(a)   Describe correctly the lifting techniques for open-ground grown trees and shrubs with respect to given specifications.
(b)   Describe accurately the treatment of lifted plant material with respect to removal of damaged roots and maintenance of root: shoot ratio.
(c)   Describe correctly the storage methods for trees and shrubs between lifting and replanting with respect to normal weather conditions.

# National Unit Specification: support notes (cont)

**UNIT**       Tree and Shrub Planting (SCQF level 4)

## Outcome 2

For Outcome 2, it is recommended that candidates should carry out practical work involved in planting bare rooted trees and shrubs. Evidence should be collected by way of an observational checklist which will be completed by the assessor which cover all of the Evidence Requirements for Performance Criteria (a), (b) and (c) namely:

(a)     Prepare bare rooted plant material (trees and shrubs) for planting correctly.
(b)     Prepare the plating site correctly.
(c)     Plant bare rooted trees and shrubs correctly.

## Outcome 3

For Outcome 3, it is recommended that candidates should carry out practical work involved in planting container grown trees and shrubs. Evidence should be collected by way of an observational checklist which will be completed by the assessor which cover all of the Evidence Requirements for Performance Criteria (a), (b) and (c) namely:

(a)     Prepare container grown plant material (trees and shrubs) for planting correctly.
(b)     Prepare the plating site correctly.
(c)     Plant container grown trees and shrubs correctly.

## Outcome 4

For Outcome 4, it is recommended that candidates should be presented with assessments designed to test their knowledge of the post planting maintenance of trees and shrubs. The instruments of assessment could be short answer written questions, alternatively the candidate could be asked to produce a report summarising the practical work which they have undertaken which must include all the main stages involved. Assessor should also complete an observational checklist for practical work for Performance Criteria (b).

Each method of assessment must generate evidence which shows that Performance Criteria (a) and (b) have been met, namely:

(a)     Describe accurately the main procedures carried out following the planting of trees and shrubs.
(b)     Carry out correctly the practical post planting maintenance operations of trees and shrubs according to accepted procedures.

Time should be allowed for any necessary re-assessment.

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# National Unit Specification: support notes (cont)

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**Opportunities for the use of e-assessment**

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003), SQA Guidelines on e-assessment for Schools (BD2625, June 2005).*

**DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website **www.sqa.org.uk/assessmentarrangements**