

Higher National Unit specification

General information for centres

Unit title: Lawn Construction and Management

Unit code: F1JD 35

Unit purpose: Lawns are important components of most gardens and this Unit is designed to give candidates the underpinning knowledge of their structure, functions, composition, construction and maintenance. In addition, candidates will receive instruction on the practical skills needed to construct areas of lawn from seed or turf. This Unit is intended for candidates who intend to enter the amenity/landscape sectors of the horticultural industry.

On completion of the Unit candidates should be able to:

- 1 Evaluate grass species and cultivars suitable for lawns.
- 2 Describe methods of lawn construction.
- 3 Construct an area of lawn.
- 4 Specify maintenance requirements for a lawn.

Credit points and level: 1 HN credit at SCQF level 8: (8 SCQF credit points at SCQF level 8*)

**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.*

Recommended prior knowledge and skills: It would be beneficial for candidates to have a basic knowledge of the growth and development of grasses, possibly gained from prior completion of a Unit such as F21T 34 *Plant Growth and Development* and of the cultivation of soil to seed bed standard possibly gained from prior completion of the Unit F1JA 34 *Horticultural Practices*. In addition, it would be a great advantage if candidates had basic knowledge and skills in maintenance of turf, possibly gained from completion of a Unit such as E9E4 12 *Turf Maintenance* and from garden work which included the maintenance of lawns.

Core Skills: There are opportunities to develop the Core Skill of Problem Solving at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

General information for centres (cont)

Assessment: Outcomes 1 and 2 could be assessed using a restricted response test which should be supervised, closed-book. Each Outcome could be assessed separately in the same way but with each test being of a shorter length. Alternatively, Outcomes 1 and 2 could be assessed through a case study or assignment in which candidates must produce a written report covering the knowledge and/or skills for both Outcomes and generate the evidence required.

Outcome 3 should be assessed using a practical exercise in which candidates prepare the topsoil for sowing grass seed or laying turf to construct a lawn, and using an observation checklist to record their performance.

Outcome 4 should normally be assessed using an assignment in which candidates produce a written report in the form of a maintenance schedule for the first year of a new lawn and for a further calendar year on an established lawn.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Evaluate grass species and cultivars suitable for lawns

Knowledge and/or Skills

- ◆ The functions of lawns
- ◆ The structure of lawns
- ◆ The vegetative characteristics of grass species and cultivars used for lawns
- ◆ The composition of seed mixtures required to achieve particular lawn types

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ describe the functions of lawns correctly
- ◆ describe the structure of lawns correctly
- ◆ describe the vegetative characteristics of grass species and cultivars used for lawns correctly
- ◆ outline the composition of seed mixtures required to achieve particular lawn types correctly

Evidence for the Knowledge and/or Skills in this Outcome may be provided on a sample basis. Where the knowledge is sampled, the sample should comprise at least two of the bullet points in the Evidence Requirements listed above. In order to ensure that candidates will not be able to foresee the sample, the whole of the content listed must be taught and available for assessment and a different sample is required each time the Outcome is assessed, to which candidates must give a satisfactory response.

Assessment Guidelines

Evidence could be generated through a supervised, closed-book, restricted response class test.

Alternatively, evidence could be generated through a written report based on a case study or an assignment. The report should cover all of the items listed in the knowledge and skills section for Outcome 1 and generate the evidence in the bullet points in the Evidence Requirements listed above.

The assessment of this Outcome can be combined with Outcome 2, details of which are given under Outcome 2 below.

Higher National Unit specification: statement of standards (cont)

Unit title: Lawn Construction and Management

Outcome 2

Describe methods of lawn construction

Knowledge and/or Skills

- ◆ Improvement of drainage of lawn area
- ◆ Primary stages of topsoil preparation
- ◆ Secondary stages of topsoil preparation
- ◆ Establishment of lawns from seed
- ◆ Establishment of lawns from turf

Evidence Requirements

Candidates will need evidence to demonstrate their Knowledge and/or Skills by showing that they can describe:

- ◆ appropriate methods to improve soil drainage of the lawn area correctly
- ◆ the primary stages of soil preparation for a new area of lawn correctly
- ◆ the secondary stages of soil preparation ready for sowing or laying turf to create a new lawn correctly
- ◆ the sowing of grass seed correctly
- ◆ the laying of turf correctly

Evidence for the Knowledge and/or Skills in this Outcome may be provided on a sample basis. Where the knowledge is sampled, the sample should comprise at least three of the items in the Evidence Requirements listed above. In order to ensure that candidates will not be able to foresee the sample, the whole of the content listed must be taught and available for assessment. A different sample is required each time the Outcome is assessed, to which candidates must give a satisfactory response.

Assessment Guidelines

Evidence could be generated through a supervised, closed-book, restricted response class test. Alternatively, evidence could be generated through a written report based on a case study or an assignment. The report should cover all of the items in the Knowledge and/or Skills section for Outcome 2, and generate the evidence in the bullet points in the Evidence Requirements listed above. Whether a restricted response test or a report based on a case study or an assignment is used, the assessment for this Outcome can be combined with Outcome 1.

Outcome 3

Construct an area of lawn

Knowledge and/or Skills

- ◆ Cultivate topsoil to produce a weed-free coarse tilth
- ◆ Break down surface and rake to an even level seed/turf bed
- ◆ Apply fertiliser (if appropriate) and rake into surface
- ◆ Sow grass seed and lightly rake into the seed bed

Higher National Unit specification: statement of standards (cont)

Unit title: Lawn Construction and Management

- ◆ Lay turf and tamp to make contact with soil
- ◆ Apply top dressing to joints between turves and brush in

Evidence Requirements

Candidates will need evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ use hand tools to cultivate a small area of topsoil to produce a weed-free coarse tilth correctly
- ◆ breakdown coarse tilth to a fine consolidated tilth correctly
- ◆ develop a firm even level seed/turf bed correctly
- ◆ apply fertiliser (if appropriate) at the correct rate and rake into soil surface correctly
- ◆ sow grass seed at correct rate and rake in correctly
- ◆ lay turf and tamp to make good soil contact correctly
- ◆ apply top dressing to joints between turves and brush in correctly

Where the Knowledge and/or Skills are sampled, the sample should consist of the first four items listed above plus either the fifth point or, alternatively, both the sixth and seventh items listed above in the Evidence Requirements. Candidates should be taught lawn construction using both seed and turf but assessment need only sample one method, either seed or turf. Candidates should not be able to foresee which method will be assessed, allowing the inference that s/he has achieved all requirements for the Outcome.

Assessment Guidelines

The instrument of assessment for this Outcome should be a practical exercise using an observation checklist.

Outcome 4

Specify maintenance requirements for a lawn

Knowledge and/or Skills

- ◆ First year maintenance of newly laid lawns
- ◆ Ongoing maintenance of lawns

Evidence Requirements

Candidates will need evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ specify maintenance tasks during the first year following sowing or laying a new lawn correctly
- ◆ specify the appropriate type of mower and mowing regime for a given quality of lawn correctly
- ◆ specify appropriate fertiliser and application regime for a given quality of lawn correctly
- ◆ describe irrigation of lawns correctly
- ◆ specify cultural requirements to maintain turf quality of a given lawn correctly

Higher National Unit specification: statement of standards (cont)

Unit title: Lawn Construction and Management

- ◆ specify cultural and chemical measures required to control moss, weeds, pests and diseases in lawn turf correctly
- ◆ specify measures for the prevention and control of physical damage to lawn turf correctly

Assessment Guidelines

The assessment for this Outcome could be a written report of a case study or hypothetical situation forming a maintenance schedule for a lawn which covers the first year in its life from sowing or turfing, and then maintenance over the period of a calendar year for an established lawn. A report of the equivalent of 500–1,000 words would be expected.

Administrative Information

Unit code: F1JD 35

Unit title: Lawn Construction and Management

Superclass category: SF

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Version	Description of change	Date

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Higher National Unit specification: support notes

Unit title: Lawn Construction and Management

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

The Unit aims to provide knowledge and skills needed for the construction and management of high quality ornamental lawns excluding sports turf for candidates intending to take up employment in garden design, development or management. The Unit also provides knowledge required by candidates intending to seek more advanced studies in horticulture or landscape management.

Outcome 1 should start by outlining the structure of lawns in terms of the shoot and leaf system, or 'sward', and the rootzone in relation to the quality of a lawn. The division of lawns into major types, fine, coarse and possibly what could be called an intermediate type, should be described followed by the uses and key desirable functional features of each type of lawn. Vegetative characteristics of the species of grass used for fine turf lawns, coarse and intermediate turf lawns should be described and the best cultivars of each species selected in relation to the lawn type. The potential influence of particular cultivars on sward quality should be described. The availability of blends or mixtures of the grasses for each type of lawn from the major turf grass seed suppliers should be investigated as well as those which are used by the major suppliers of lawn turf. This should allow candidates to select seed mixtures suitable for fine, coarse and intermediate quality lawns as well as turf containing the appropriate species and cultivars for the desired lawn quality.

Outcome 2 should start by outlining a simple site analysis of an area for a new lawn in terms of the essential environmental needs of the grass plants, including high light intensity for photosynthesis in the leaves and appropriate air, water and soil nutrient availability for efficient root activity. The importance of good soil/rootzone drainage to healthy growth and functioning of grass roots, and so lawn quality and longevity, should be explained and simple, effective methods to improve drainage should be described. The importance of improving soil drainage well before sowing the seed or laying the turf should be emphasised. Primary cultivation of the top soil by digging or ploughing followed by forking and raking or harrowing, stone picking and firming to produce a finer tilth seed or turf bed, and application of fertiliser should be described. The need for a lawn seedbed to be quite firm and evenly firm, with no soft areas which could sink later, should be emphasised. Methods for ensuring that the grass seed is sown evenly and at the correct rate over the whole lawn area should be described. This could include sowing by hand or with mechanical aids, followed by light/shallow raking or chain harrowing to increase soil contact with a proportion of the seed. Description of techniques for laying, firming, top dressing and trimming edges of turf on the prepared lawn area should be included.

Outcome 3 should start with completion of a risk assessment for the processes involved in creating an area of lawn on a given site from seed or turf. Each stage of primary and secondary cultivation of the soil to the preparation of the seed bed or turf bed for the lawn should be demonstrated to the candidate before s/he carries it out. When demonstrating seed/turf bed levelling and final raking, emphasis should be placed on firming and raking to the correct fineness of tilth and on removing stones from the upper 50–100mm of soil.

Higher National Unit specification: support notes (cont)

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Fertiliser application and incorporation should be demonstrated followed by sowing appropriate grass seed at the correct rate and lightly raking it into part of the area, the remaining area should be used for demonstrating the laying of turf.

Outcome 4 should start by outlining the first steps of managing a new lawn to ensure that it passes successfully through the transition period from seed germination or laying of the turf to full establishment, and regular mowing at the desired summer cutting height using the appropriate type of mower. The main part of the Outcome considers the essential points of the key tasks for management and maintenance of an established lawn over a 12 month period. Mowing, including selection of a mower with the appropriate cutting mechanism and collection system and adjustment of height of cut in relation to the desired finish for the lawn should be described. Variations in direction and frequency of mowing and cutting heights for different times of the year should also be outlined. Fertilisers for use on lawns should be described in terms of the effects of their contents on the turf and the timing and frequency of their application. The role, methods and timing of irrigation should be outlined. The timing, principles and methods of scarification and aeration of turf should be described followed by the process of top dressing. An outline of weeds, moss, pests and diseases of turf and their cultural and chemical controls should be given. Other disorders that can affect turf like dry patch, compaction and waterlogging and their prevention and control should be described.

Guidance on the delivery and assessment of this Unit

This Unit is likely to form part of a Group Award, which is primarily designed to provide candidates with technical or professional knowledge and skills related to occupations in amenity horticulture or landscape management. Students will need to relate information learnt in this Unit to the requirements of the Graded Unit.

Delivery should place emphasis on the practical aspects of lawn construction. It should include a range of approaches from formal lectures to discussions and library sessions, giving access to lawn orientated journals and publications, and appropriate websites. Also, current grass seed and turf suppliers catalogues and specifications should be available. Practical sessions on lawn construction and maintenance should be carried out at the appropriate time of year which means having access to suitable ground for construction and to high quality established lawn areas for carrying out the post-establishment lawn maintenance tasks.

The following texts/videos may be helpful in the delivery of this Unit:

- ◆ Anon (1999), *'Lawns & Ground Cover'* (Royal Horticultural Society Practical Guide), Dorling Kindersley
- ◆ Anon (2002), *'Lawns'* (Video), Thomson & Morgan (Young Plants) Ltd
- ◆ Anon (2003), *'Turfgrass Seed 2003'* (or more recent issue), *Sports Turf Research Institute*
- ◆ Fish, M. (2004), *'Lawns'* (Collins Practical Gardener), Collins
- ◆ Franklin, S. (1988), *'Building a Healthy Lawn'*, Storey Publishing
- ◆ Hessayon, D.G. (2002), *'The Lawn Expert'*, Expert Books (Key text)
- ◆ Howarth, R.J.C. (1994), *'Turfgrass Manual'*, British Seed Houses

Higher National Unit specification: support notes (cont)

Unit title: Lawn Construction and Management

Opportunities for developing Core Skills

There are opportunities to develop the Core Skill of Problem Solving at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Open learning

Elements of this Unit could be delivered by distance learning, for example, Outcomes 1, 2 and 4. Instruction could be gained in many practical tasks at a candidate's place of employment with assessment at the centre or in the workplace by appropriately trained staff. It is probable that candidates would need to attend the centre to gain experience in the breadth of skills within the Unit. For further guidance on open learning, please refer to the SQA document, *Assessment and Quality Assurance for Open and Distance Learning* (SQA, 2000)

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).

General information for candidates

Unit title: Lawn Construction and Management

This Unit is designed to provide you with knowledge and practical skills to construct and manage a lawn which should be appropriate for employment in the landscape industry or professional gardening. It also provides knowledge you require if you intend to pursue more advanced studies in landscape or garden design or management or amenity horticulture.

At the start of the Unit, you will be introduced to the various uses or functions of lawns and to their nature or structure and to the range of grass types of which they are composed.

This should enable you to select the most appropriate mixture of grasses from the range available to most closely match the functions to be performed by the lawn. You will learn about the environmental needs of a lawn especially relating to light and shade of the site and drainage capacity of the soil and methods to improve them. There will be verbal and practical instruction on constructing a lawn from seed and turf and on how to manage it during the transition period to establishment. In addition maintenance tasks for an established lawn covering a year will be taught.

On completion of this Unit you should be able to:

- 1 Evaluate grass species and cultivars suitable for lawns.
- 2 Describe methods of lawn construction.
- 3 Construct an area of lawn.
- 4 Specify maintenance requirements for a lawn.

In order to complete this Unit successfully, you will be required to achieve a satisfactory level of performance in three pieces of assessed work, a written test, a written report and one practical.