

Next Generation Higher National Unit Specification

Horticulture: Sustainability and Innovation (SCQF level 8)

Unit code: J7AF 48
SCQF level: 8 (8 SCQF credit points)
Valid from: session 2023–24

Prototype unit specification for use in pilot delivery only (version 1.0) September 2023

This unit specification provides detailed information about the unit to ensure consistent and transparent assessment year on year.

This unit specification is for teachers and lecturers and contains all the mandatory information required to deliver and assess the unit.

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Unit purpose

This unit provides learners with literacy in sustainability in a horticultural context. Learners explore and debate topical issues facing the horticulture industry today and in the future, and apply problem-solving skills to propose innovative solutions. The unit is flexible to ensure student-centred learning and teaching, focusing on key topics that are of concern to the current intake of learners. It uses active learning techniques to challenge learners' current understanding and build their confidence in exploring new ways of thinking and communicating information.

Before starting the unit, learners would benefit from having a foundation knowledge of horticulture, ideally having completed units from the Higher National Certificate (HNC) Horticulture, on which this unit expands.

On completion of the unit, and on achievement of the Higher National Diploma (HND), learners may be able to progress to the BSc in Horticulture. Alternatively, they may wish to apply directly to the horticulture industry and related work placements.

Unit outcomes

Learners who complete this unit can:

- 1 develop sustainability knowledge and understanding, and skills in a horticultural context
- 2 communicate information in a number of formats

Evidence requirements

Learners must provide the following evidence:

Outcome 1

Learners gather evidence that demonstrates they can:

- ◆ identify and describe sustainability in the context of the United Nations Sustainable Development Goals (UN SDGs)
- ◆ explain how one product or process relevant to their qualification could be made more sustainable and help meet the aims of at least two selected UN SDGs

Outcome 2

Learners gather evidence that demonstrates they can:

- ◆ investigate horticultural issues
- ◆ create infographic materials using digital software
- ◆ communicate information to an appropriate audience

Knowledge and skills

The following table shows the knowledge and skills covered by the unit outcomes:

Knowledge	Skills
<p>Outcome 1 Learners should understand:</p> <ul style="list-style-type: none"> ◆ sustainability and the UN SDGs ◆ horticulture sustainability issues, how these relate to the UN SDGs, and potential improvements 	<p>Outcome 1 Learners can:</p> <ul style="list-style-type: none"> ◆ review UN SDGs and assess own knowledge and understanding ◆ review unit content against the UN SDGs to identify a sustainability-related issue ◆ apply knowledge and understanding of sustainability and the UN SDGs to propose improvement
<p>Outcome 2 Learners should understand:</p> <ul style="list-style-type: none"> ◆ different means of communication and how these apply to an audience ◆ how to effectively communicate information 	<p>Outcome 2 Learners can:</p> <ul style="list-style-type: none"> ◆ differentiate and apply the most appropriate method of communication for a specified audience ◆ communicate information on a range of contextualised topics

Meta-skills

Throughout the unit, learners develop meta-skills to enhance their employability in the horticulture sector.

Self-management

This meta-skill includes:

- ◆ focusing: reviewing the UN SDGs and assessing own knowledge and understanding
- ◆ integrity: showing a strong sense of self and personal values
- ◆ adapting: focusing on current issues
- ◆ initiative: applying knowledge and understanding of sustainability and the UN SDGs to propose improvement

Social intelligence

This meta-skill includes:

- ◆ communicating: preparing and presenting information on a range of topics; participating in debate
- ◆ feeling: considering the audience when communicating
- ◆ collaborating: working in groups; debating topical issues facing the horticulture industry today and in the future

Innovation

This meta-skill includes:

- ◆ curiosity: investigating horticultural issues; researching and developing supporting materials
- ◆ creativity: creating infographic materials using digital software
- ◆ critical thinking: identifying a sustainability-related issue

Delivery of unit

The notional design length for the unit is 40 hours. However, the amount of time you allocate to each outcome is at your discretion.

We suggest the following distribution of time, including assessment:

Outcome 1 — develop sustainability knowledge and understanding, and skills in a horticultural context
(20 hours)

Outcome 2 — communicate information in a number of formats
(20 hours)

Additional guidance

The guidance in this section is not mandatory.

Content and context for this unit

This unit is flexible to ensure student-centred learning and teaching. It focuses on key topics that are of concern to the current intake of learners. We recommend that you use active learning techniques to challenge learners' current understanding and build their confidence in exploring new ways of thinking and communicating information.

Topics that you could cover include, but are not limited to:

- ◆ the use of plastics
- ◆ the sustainability of growing medias
- ◆ energy use and green technologies
- ◆ vertical farming
- ◆ the social impacts of robotics
- ◆ health and wellbeing in community growing
- ◆ the sustainability of globalised supply chains
- ◆ urban horticulture
- ◆ integrated pest management

Approaches to assessment

You can assess learners on their examination of at least two sustainability issues facing the horticulture industry and apply problem-solving skills to propose an innovative solution. They can do this in groups or individually. They can prepare and present their findings in a number of formats for each issue. Examples include, but are not limited to, a:

- ◆ group debate with supplementary infographics
- ◆ presentation with a supporting slideshow and/or poster
- ◆ podcast with supporting blog and/or web page

Equality and inclusion

This unit is designed to be as fair and as accessible as possible with no unnecessary barriers to learning or assessment.

You should take into account the needs of individual learners when planning learning experiences, selecting assessment methods or considering alternative evidence.

Guidance on assessment arrangements for disabled learners and/or those with additional support needs is available on the assessment arrangements web page:

www.sqa.org.uk/assessmentarrangements.

Information for learners

Horticulture: Sustainability and Innovation (SCQF level 8)

This information explains:

- ◆ what the unit is about
- ◆ what you should know or be able to do before you start
- ◆ what you need to do during the unit
- ◆ opportunities for further learning and employment

Unit information

This unit allows you to develop and demonstrate your understanding of sustainability in the context of horticulture.

You have the opportunity to explore and debate topical issues facing the horticulture industry today and in the future, and apply problem-solving skills to propose innovative solutions.

You develop your understanding of the United Nations Sustainable Development Goals (UN SDGs) and how these can relate to horticulture, and identify ways you can apply these principles to your work.

You also develop the skills required to communicate these issues and potential solutions to a range of people.

Throughout the unit, you develop meta-skills covering self-management, social intelligence and innovation.

On completion of the unit, and on achievement of the Higher National Diploma (HND), you may be able to progress to the BSc in Horticulture. Alternatively, you may wish to apply directly to the horticulture industry and related work placements.

Administrative information

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History of changes

Version	Description of change	Date

Note: please check [SQA's website](#) to ensure you are using the most up-to-date version of this document.