

NextGen: HN unit specification

Specialist Plant Propagation (SCQF level 8)

Unit code: JAXH 48

SCQF level: 8 (16 SCQF credit points)

Valid from: August 2026

This unit specification provides detailed information about the unit to ensure consistent and transparent assessment year on year. It is for lecturers and assessors, and contains all the mandatory information you need to deliver and assess the unit.

Published: October 2026 (version 1.0)

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Unit purpose

This unit gives learners the opportunity to learn advanced practical propagation skills for a range of specialist plants in a global context.

During the unit, learners apply practical and technical skills to propagate plants and maintain propagules. Highlighting sustainable practices where possible, the unit places an emphasis on current industry techniques.

On completing the unit and on achieving the HND, learners may be able to progress to degree programmes in Horticulture. Alternatively, they may want to go directly into employment in the horticulture industry or related work placements.

Entry requirements

Entry to this unit is at your centre's discretion. Before they start, learners would benefit from having a foundation knowledge of Production Horticulture at SCQF level 7 or equivalent, on which this unit expands. We also recommend that learners have completed one or more of the following:

- HNC Horticulture
- a horticultural qualification at SCQF level 7
- appropriate work experience in horticulture

Unit outcomes

Learners who complete this unit can:

1. identify a range of specialist plants and their relevant growing environments
2. demonstrate appropriate propagation techniques for producing specialist plants
3. maintain stock plants and manage propagules of specialist plants

Evidence requirements

Outcome 1

Learners must identify a range of specialist plants from different growing environments.

Examples of specialist plants may include but are not limited to:

- cacti
- ferns
- succulents
- orchids
- carnivorous
- aquatics
- alpine
- bulbs

You can assess learners using:

- restricted-response questions
- plant identification exercises
- profiles
- case studies
- or an e-portfolio

Outcome 2

Learners must demonstrate a minimum of three advanced propagation techniques appropriate for producing specialist plants.

Techniques could include but are not limited to:

- using cuttings
- layering, air-layering
- grafting
- micropropagation
- micrografting
- spore propagation

Outcome 3

Learners must demonstrate that they can:

- maintain stock plants to industry standards to provide propagation material
- manage and monitor propagation success and plant health
- maintain accurate propagation records

Learners can generate evidence in the form of a written document or e-portfolio.

You could combine assessment for outcomes 2 and 3 in a practical project.

Knowledge and skills

Knowledge	Skills
Outcome 1 Learners should understand: • specialist plant groupings • growing environments	Outcome 1 Learners can: • identify a range of specialist plants using the relevant two-part botanical names • identify a range of different growing environments
Outcome 2 Learners should understand: • how to apply and use a range of plant-propagation techniques • the importance of health and safety considerations in relation to plant propagation • the importance of sanitation and abiotic practices in relation to plant propagation	Outcome 2 Learners can: • identify suitable propagation techniques • demonstrate a minimum of three different plant-propagation techniques • use propagation tools safely • follow propagation steps • comply with official health and safety, COSHH (Control of Substances Hazardous to Health) and biosecurity protocols

Knowledge	Skills
Outcome 3 Learners should understand: • sustainability and environmental considerations in plant propagation • the different approaches needed when propagating plants • health and safety considerations and awareness • stock plant and propagule management and maintenance practices to appropriate industry standards • how to apply and monitor environmental growing conditions • how to maintain accurate propagation records	Outcome 3 Learners can: • identify suitable materials, methods, and resources required for plant propagation • identify and discuss relevant sustainability considerations • manage and maintain stock plants and propagules in appropriate growing environments • monitor and maintain environmental conditions • maintain accurate propagation records

Meta-skills

You must give learners opportunities to develop their meta-skills throughout this unit. We have suggested how to incorporate the most relevant ones into the unit content, but you may find other opportunities.

Self-management

This includes focusing, integrity, adapting and initiative. The most relevant are:

- focusing:
 - studying and carrying out complex plant propagation techniques
 - developing a detailed improved crop management practice (ICMP)
- integrity:
 - taking responsibility for own part in group work
 - modelling best practice in lab work
- initiative:
 - anticipating propagation issues and proposing solutions

Social intelligence

This includes communicating, feeling, collaborating and leading. The most relevant are:

- communicating:
 - taking an active part in class discussions
- collaborating:
 - sharing learning

Innovation

This includes curiosity, creativity, sense-making and critical thinking. The most relevant are:

- curiosity:
 - looking beyond set tasks
 - asking lecturers and peers questions
- sense-making:
 - linking learning from different areas of this unit and others
 - drawing conclusions
- critical thinking:
 - questioning outcomes and results
 - designing solutions to problems as they occur

Literacies

This unit provides opportunities to develop the following literacies.

Communication

Learners have multiple opportunities to develop their communication skills in the unit, during group work, class discussion, and when they demonstrate and present what they have learned.

Digital

Learners develop digital skills and computer literacy as they use digital software to manage, plan and report on their research, findings and assignments.

Learning for Sustainability

Throughout this unit, you should encourage learners to develop their skills, knowledge and understanding of sustainability.

This includes:

- a general understanding of social, economic and environmental sustainability
- a general understanding of the United Nations Sustainable Development Goals (SDGs)
- a deeper understanding of subject-specific sustainability
- the confidence to apply the skills, knowledge, understanding and values they develop in the next stage of their life

Delivery of unit

You can integrate delivery of aspects of the unit with Advanced Production Horticulture at SCQF level 8 and Sustainability and Innovation at SCQF level 8. You can integrate topics to suit your centre's facilities and resources.

The notional design length for the unit is 80 hours. The amount of time you allocate to each outcome is at your centre's discretion.

Additional guidance

The guidance in this section is not mandatory.

Content and context for this unit

We recommend that centres use digital technologies — such as word-processing, spreadsheet and presentation software — as well as any appropriate e-tools, including e-portfolios to enable authentic assessment. Encourage learners to use digital software to report on and present findings. You should use a range of software applications and platforms for blended delivery where possible.

Approaches to delivery

We recommend that you deliver the unit according to your centre's facilities and resources, drawing on areas of centre expertise. You should make use of industry contacts and, where possible, organise site visits to relevant growers and botanic gardens to help learners contextualise their understanding of the industry.

Outcome 1

We recommend that you use live specimen material wherever possible. Visits to botanical gardens or other relevant plant collections help to contextualise and enhance learning.

You should identify specialist plants covering a range of different environments using their botanical names.

Outcome 2

You should use live plant specimens and physical growing environments to contextualise the propagation of specialist plants and embed direct application of maintenance skills. Learners would benefit considerably from visits to relevant sites to supplement their learning.

Outcome 3

Learners should use live specimens to manage and maintain stock plants and propagules. You should embed sustainable practices wherever possible.

Activities could include:

- acclimatising, transplanting, potting on
- pinching out, creation of plant architecture
- applying and monitoring of crop nutrition, irrigation, light, humidity
- managing pests and pathogens
- maintaining sanitation and biosecurity

Resources

Centres delivering this qualification must have suitably qualified staff for each of the subject components. Your centre should already have established processes to ensure staff are appropriately qualified to deliver in this subject area.

Assessors and internal verifiers must hold an industry and/or subject-specific qualification equivalent to the qualification. Centre staff should have relevant industry experience and be able to demonstrate industry-relevant CPD to maintain their subject-specific knowledge and skills.

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 must consider the needs of individual learners when planning learning experiences, selecting assessment methods or considering alternative evidence.

Guidance on assessment arrangements for disabled learners and those with additional support needs is available on the [assessment arrangements web page](#).

Information for learners

Specialised Plant Production (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 gives you the knowledge and skills you need to cultivate specialist global plant groupings. You learn about and identify specialist plant groupings, and understand how to apply practical and technical skills to carry out the main stages of production, from propagation to maturity and sale stage, in the retail and conservation sectors.

As you study the unit, you learn to:

1. identify a range of specialist plants and their relevant growing environments
2. demonstrate appropriate propagation techniques for producing specialist plants
3. maintain stock plants and manage propagules of specialist plants

Prior knowledge and skills

Before starting the unit, you would benefit from having completed Production Horticulture at SCQF level 7 or equivalent. We also recommend that you have completed one or more of the following:

- HNC Horticulture
- a horticultural qualification at SCQF level 7
- appropriate work experience in horticulture

You should actively participate with learning outcome achievement and class activities.

Assessment

You can be assessed in a variety of ways, which are likely to include both written and practical tasks.

Future progression and employment

On completion of the unit, and on achievement of the HND, you may be able to progress to the BSc in Horticulture. Alternatively, you may be able to go directly into employment in the horticulture industry or related work placements.

Meta-skills

Throughout this unit, you develop meta-skills that are useful for the horticulture sector.

Meta-skills are transferable behaviours and abilities that help you adapt and succeed in life, study and work. There are three categories of meta-skills: self-management, social intelligence and innovation.

Self-management

You develop your self-management skills as you focus on complex plant production techniques; and show integrity by modelling best practice in lab and group work, anticipating propagation issues and proposing solutions.

Social intelligence

You develop your social intelligence skills by communicating effectively in class discussion and collaborating in group tasks.

Innovation

You develop your innovation skills by looking beyond set tasks; asking lecturers and peers questions, linking learning from different areas of this unit and others, questioning outcomes and solving problems as they occur.

Learning for Sustainability

Throughout this unit, you develop skills, knowledge and understanding of sustainability.

You learn about social, economic and environmental sustainability principles and how they relate to the horticulture sector. You also develop an understanding of the [United Nations Sustainable Development Goals](#).

Administrative information

Published: October 2026 (version 1.0)

Superclass: SF

History of changes

Version	Description of change	Date

Please check [our website](#) to ensure you are using the most up-to-date version of this unit.

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