



QQI

Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

Component Specification NFQ Level 6

Horticultural Production Mechanisation 6N3623

1. Component Details

| | |
|---------------------------|---|
| Title | Horticultural Production Mechanisation |
| Teideal as Gaeilge | Meicniú Táirgeadh Gairneoireachta |
| Award Type | Minor |
| Code | 6N3623 |
| Level | 6 |
| Credit Value | 30 |
| Purpose | The purpose of this award is to equip the learner with the knowledge, skill and competence to understand the working mechanism and use a range of machinery in horticultural field crop production. |
| Learning Outcomes | <p>Learners will be able to:</p> <ol style="list-style-type: none">1 Explain the importance of field crop cultivation practices including the uses of different cultivators2 Assess the importance of irrigation practices in field crop production including sources of water, systems of application, and terms used such as field capacity, soil moisture deficit, available water capacity, and permanent wilting point3 Appraise mechanical equipment management and maintenance planning for horticultural field crop production4 Analyse the operation and working mechanisms of a range of field crop production machinery including |

- crop seeders, planters, harvesters and harvesting aids
- 5 Operate a tractor in a safe and competent manner to include safety assessments, pre-starting and maintenance checks, interpreting instrument readings, hitching implements including PTO and hydraulics and use with trailed implement attached
 - 6 Operate a plough in a safe and competent manner to include setting
 - 7 Apply fertiliser and seed accurately by means of both a crop fertiliser spreader and crop seeder to include correct calibration
 - 8 Organise the setting up of a crop irrigation system
 - 9 Ensure implementation of procedures to create and maintain a safe working environment including safety standards regarding lifting, carrying and handling plants, tools and equipment.

Assessment

General Information

All assessment should be planned in accordance with the programme assessment strategy developed as part of the programme submission for validation. See **Policies and Criteria for Validation of Programmes**. Assessment should be undertaken consistently and reflect current assessment guidelines. See www.qqi.ie.

All FET assessment is criterion referenced. Successful achievement of the award is based on learners attaining the required standards of knowledge, skill or competence consistent with the **minimum intended programme learning outcomes**.

The techniques set out below are considered the optimum approach to assessment for this component. In exceptional circumstances providers may identify alternative assessment techniques through the provider's application for programme validation which are reliable and valid but which are more appropriate to their context.

Assessment of a number of components may be integrated across programmes for delivery, provided that the learning outcomes of each minor award are assessed.

Group or team work may form part of the assessment, provided each learner's achievement is separately assessed.

All providers are required to submit an assessment plan as part of their application for programme validation. Assessment Plans will include information relating to scheduling and integration of assessment. See current FET validation guidelines at www.qqi.ie.

Assessment Techniques

In order to demonstrate that they have reached the standards of knowledge, skill and competence identified in all the learning outcomes, learners are required to complete the assessment(s) below.

The assessor is responsible for devising assessment instruments (e.g. project and assignment briefs, examination papers), assessment criteria and mark sheets, consistent with the techniques identified below and QQI's assessment requirements.

Programme validation will require providers to map each learning outcome to its associated assessment technique. All learning outcomes **must** be assessed and achieved in accordance with the **minimum intended module learning outcomes** set out in the validated programme.

| | |
|----------------------|-----|
| Learner Record | 40% |
| Examination - Theory | 30% |
| Skills Demonstration | 30% |

Description

Learner Record

A learner record is the learner's self-reported and self-reflective record in which he/she describes specific learning experiences, activities, responses and skills acquired.

The assessor will devise a brief that requires the learner to maintain a learner record for a minimum period of 220 hours work experience on an approved horticultural field crop production unit. Learners are required to record their application of all learning outcomes in a field crop production setting. The learner must pass this assessment to achieve the award.

Examination - Theory

An examination provides a means of assessing a learner's ability to recall and apply knowledge, skills and understanding within a set period of time and under clearly specified conditions.

A theory-based examination assesses the ability to recall, apply and understand specific theory and knowledge.

Skills Demonstration

A skills demonstration is used to assess a wide range of practical based learning outcomes including practical skills and knowledge. A skills demonstration will require the learner to complete a task or series of tasks that demonstrate a range of skills.

Recognition of Prior Learning (RPL)

To support the development and implementation of RPL with regard to access, granting credit/exemptions and achievement of awards/parts of awards, providers should refer to **QQI's Statutory Guidelines for Quality Assurance**, the **Policies and Criteria for Validation of Programmes** and the **Principles and Operational Guidelines for the Recognition of Prior Learning in Further and Higher Education and Training** available at www.qqi.ie

Grading

| | |
|-------------|------------|
| Pass | 50% - 64% |
| Merit | 65% - 79% |
| Distinction | 80% - 100% |

Specific Validation Requirements

There are no specific validation requirements

Supporting Documentation

None

Access

To access programmes leading to this award the learner should have reached the standards of knowledge, skill and competence associated with the preceding level of the National Framework of Qualifications. This may have been achieved through a formal qualification or through relevant life and work experience.

Transfer

Successful completion of this component award enables the learner to transfer to programmes leading to other certificates where this component is a mandatory or an elective requirement.

2. FET Award Standards

QQI award standards are determined within the National Framework of Qualifications (NFQ), <http://www.nfq-qqi.com>. QQI determines standards for the education and training awards that it makes itself and that are made by providers to whom it has delegated authority to make an award. Providers offering programmes leading to QQI awards **must** have their programme(s) validated in accordance with current validation policy (see www.qqi.ie).

Award standards are designed to be consistent with the NFQ's award classes i.e. major, special purpose, supplemental and minor awards. They are expressed in terms of **learning outcomes** i.e. concise statements of what the learner is expected to know or be able to do in order to

achieve a particular award. Learning outcomes for FET awards are contained within the associated specifications:

| AWARD CLASS | STANDARDS | AWARDS |
|--------------------|--------------------------------|---|
| Major Award | Certificate Specification | Certificate (Levels 1 to 5) Advanced Certificate (Level 6) |
| Supplemental Award | Supplemental Specification | Supplemental Certificate (Level 3 to 6) |
| Special Purpose | Specific Purpose Specification | Specific Purpose Certificate (Levels 3 to 6) |
| Minor Award | Component Specification | Component Certificate (Levels 1 to 6) |

Award standards are thresholds, they describe standards of knowledge, skill or competence to be acquired, and where appropriate, demonstrated, by a learner before an award may be made.

Award standards will be reviewed from time to time as necessary. Minor changes may be made by the QQI executive outside the review cycle where necessary. Changes to standards are published on QQI's website. Providers with validated programmes and providers with delegated authority to make awards are responsible for monitoring relevant standards and making necessary responses to changes.

3. FET Credit

Every FET certificate and component specification includes an FET credit value (Table 1). FET credit is quantified in multiples of 5 FET credits (up to 50 hours of learner effort). Learner effort is based on the time taken by typical learners at the level of the award to achieve the learning outcomes for the award. It includes all learning time involved including: guided learning hours, self-directed learning and assessment.

Table 1: FET Credit Values

| NFQ Level | Major Awards Credit Values | Default Credit Values Minor Awards | Other Permitted Minor Award Credit Values | Special Purpose and Supplemental Award Credit Value Ranges |
|-----------|----------------------------|------------------------------------|---|--|
| 1 | 20 | 5 | 10 | |
| 2 | 30 | 5 | 10 | |
| 3 | 60 | 10 | 5,20 | >5 and <60 |
| 4 | 90 | 10 | 5,15,20 | >5 and <90 |
| 5 | 120 | 15 | 5,10,30 | >5 and <120 |
| 6 | 120 | 15 | 5,10,30 | >5 and <120 |

Guide to Level

Learning outcomes at this level include a comprehensive range of skills which may be vocationally-specific and/or of a general supervisory nature, and require detailed theoretical understanding. The outcomes also provide for a particular focus on learning skills. The outcomes relate to working in a generally autonomous way to assume design and/or

management and/or administrative responsibilities. Occupations at this level would include higher craft, junior technician and supervisor.

| Strand | Sub-strand | Nature of learning |
|------------------|-------------------|--|
| Knowledge | Breadth | Specialised knowledge of a broad area |
| | Kind | Some theoretical concepts and abstract thinking, with significant depth in some areas |
| Know How & Skill | Range | Demonstrate a comprehensive range of specialised skills and tools |
| | Selectivity | Formulate responses to well defined abstract problems |
| Competence | Context | Utilise diagnostic and creative skills in a range of functions in a wide variety of contexts |
| | Role | Exercise substantial personal autonomy and often take responsibility for the work of others and/or for the allocation of resources; form and function within, multiple and complex heterogeneous groups. |
| | Learning to Learn | Learn to take responsibility for own learning within a managed environment. |
| | Insight | Express an internalised, personal world view, reflecting engagement with others. |

Extract from 'Determinations for the Outline National Framework of Qualifications': NQAI