

Component Specification

Organic Manure Application

NFQ Level 5

5N1751

1. Component Details

Title	Organic Manure Application
Teideal as Gaeilge	Feidhmiú Aoiligh Orgánaigh
Award Class	Minor
Code	5N1751
Level	5
Credit Value	5
Purpose	The purpose of this award is to equip the learner with the relevant knowledge, skill and competence to apply chemical fertilisers in accordance with crop nutrient requirements and environmental legislation.
Learning Outcomes	<p>Learners will be able to:</p> <ol style="list-style-type: none"> 1 Outline the pollution potential for the range of farm manures and farm wastes for biochemical oxygen demand (BOD), soil type and underlying geology, weather and spreading interactions 2 Interpret nitrates directives and cross compliance requirements as they relate to application of organic manure and slurry 3 Review factors in maximizing the nutrient value of farm manure including fertilizer value, storage, dilution, timing of application and application rates 4 State the farmer's legal and regulatory obligations, restrictions and responsibilities for manure and slurry application

- 5 State safety precautions to be followed when handling farm manure and slurry while storing, agitating, stacking and spreading
- 6 Outline manure and slurry collection, storage and spreading systems and equipment
- 7 Prepare a tractor and manure and slurry equipment for work
- 8 Spread manure and slurry safely and accurately in accordance with current legislation and best practice
- 9 Prepare manure and slurry equipment for storage
- 10 Spread manure and slurry safely and accurately under limited supervision in a farm or horticultural setting.

Assessment

General Information

Details of FET assessment requirements are set out in [Assessment Guidelines for Providers](#).

All FET assessment is criterion referenced. Successful achievement of the award is based on learners attaining the required standards of knowledge, skill or competence.

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 FETAC's assessment requirements.

Programme validation will require providers to map each learning outcome to its associated assessment technique. See current FET validation guidelines at www.gqi.ie.

All learning outcomes **must** be assessed and achieved

Description

Skills Demonstration	60%
Examination - Theory	40%

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.

Weighting Factor:

Where a critical fault occurs the entire skills demonstration must be terminated.

0 marks for termination of skill demonstration due to a critical fault or failure to complete the task.

1 mark for completing the task with 3 or more minor faults

2 marks for completing the task with less than 3 minor faults

3 marks for exceeding the criteria for the task with no minor faults

Examples of critical faults: compromises safety, animal welfare, the environment

Examples of minor faults: Incorrect sequence, too slow, requires guidance

The learner must achieve at least 40 of the 60 marks available, to pass this assessment. The learner must pass this assessment to achieve the award

Prepares tractor and equipment for work

1. Carries out safety assessment for preparing tractor and spreader
2. Assesses compatibility of tractor with spreader and agitator
3. Checks, cleans and greases spreader for work
4. Checks, cleans and greases agitator or loader for work

Prepares manure or slurry for spreading

5. Carries out safety assessment for preparing manure or slurry for spreading
6. Ensures that all humans and livestock are excluded from the vicinity of the stacking or agitation area
7. Lowers agitator into tank and prepares for agitation or selects best location for loading operation
8. Commences agitation by gradually increasing PTO (power take off) speed after engaging PTO or stacks manure to enable rapid loading of manure on to spreader

Spreads manure or slurry

9. Carries out safety assessment for spreading manure or slurry
10. Fills slurry tanker with slurry or loads spreader with manure
11. Measures the discharge rate of the spreader
12. Determines forward speed to achieve target application rate
13. Calibrates tractor forward speed
14. Spreads slurry or manure with accurate bout matching

Prepares spreader for storage

15. Carries out safety assessment for preparing equipment for storage
16. Cleans all residues from the outside of the spreader and the tractor making sure that washings run to a soiled water or slurry tank
17. Greases all nipples
18. Checks for undue wear or damage
19. Coats all metal parts with rust inhibitor
20. Maintains record of all applications.

Overall Marks 60

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.

The assessor will devise a theory-based examination to assess learning outcomes 1 - 6.

Overall Marks 40

Recognition of Prior Learning (RPL)

Learners may be assessed on the basis of their prior knowledge and experience. Providers must be specifically quality assured to assess learners by this means. To do so they must complete B10, see Provider's Quality Assurance Guidelines and be included on the Register of RPL approved providers. See RPL Guidelines at www.fetac.ie for further information and registration details.

Grading

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

Specific Validation Requirements

There are no specific validation requirements for this award

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 broad range of skills that require some theoretical understanding. The outcomes may relate to engaging in a specific activity, with the capacity to use the instruments and techniques relating to an occupation. They are associated with work being undertaken independently, subject to general direction.

Strand	Sub-strand	Nature of learning
Knowledge	Breadth	Broad range of knowledge
	Kind	Some theoretical concepts and abstract thinking, with significant depth in some areas.
Know How & Skill	Range	Demonstrate a broad range of specialised skills and tools
	Selectivity	Evaluate and use information to plan and develop investigative strategies and to determine solutions to varied unfamiliar problems
Competence	Context	Act in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs; identify and apply skill and knowledge to a wide variety of contexts
	Role	Exercise some initiative and independence in carrying out defined activities; join and function within multiple, complex and heterogeneous groups
	Learning to Learn	Learn to take responsibility for own learning within a managed environment
	Insight	Assume full responsibility for consistency of self- understanding and behaviour

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