QQI
Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

Component Specification NFQ Level 5

Dairy Husbandry 5N20396

1. Component Details

Title	Dairy Husbandry
Teideal as Gaeilge	Saothraíocht Déiríochta
Award Type	Minor
Code	5N20396
Level	5
Credit Value	10
Purpose	The purpose of this award is to equip the learner with the knowledge, skill and competence to carry out commercial dairy farming under management
Learning Outcomes	Learners will be able to:

1 Describe the Irish dairy farming industry to include its importance in Irish agriculture, and the main milk production systems

2 Discuss management and biological factors affecting efficiency in dairy production in terms of cow health and feeding and feed mixes

3 Describe milk production in the cow's udder and the factors affecting milk composition and quality

4 Discuss the feeding and management for different categories of dairy stock.

5 Discuss the diseases, disorders and parasites of cows and calves to include causal agents, symptoms, prevention control and biosecurity measures

6 Describe the milking process, and the operation of milking facilities and systems for the production of quality milk in compliance with relevant legislation.

7 Describe milk quality in terms of Total Bacterial Count, Somatic Cell Count, fat and protein

8 Analyse housing for the dairy herd to include human and animal health, welfare safety, efficiency and the cost of construction

9 Practice husbandry tasks required in dairy production by applying industry recognised techniques and performance standards.

10 Assess a range of dairy stock for economic characteristics by applying recognised criteria

11 Practice a comprehensive range of breeding tasks, competently and safely using recognised techniques and performance standards

12 Execute best practice in milking routine.

13 Control common diseases affecting the health of the dairy herd, by planning and implementing prevention and or curative strategies and by correctly identifying and treating their symptoms in accordance with recommended good practice

14 Execute a comprehensive range of dairy husbandry skills with respect to breeding, calving, animal husbandry, milking and culling, taking into account human and animal safety, animal welfare, traceability regulations and best practice

15 Analyse drivers of profit in dairy production and explore practices to attain industry recognised targets to include financial, physical and biological targets

16 Practice safety and workplace health in agriculture

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.

Examination - Theory	50%
Skills Demonstration	50%

Description

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 to 7, 15 and 16.

Learning outcome 8 will be assessed using case studies in an examination situation

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.

The assessor will devise skills demonstrations to assess learning outcomes 9 to 14. A skills demonstration will require the learner to complete a task or series of tasks appropriate to the learning outcomes. The learner must attempt a minimum of 20 of the indicative dairy husbandry skills listed below.

Indicative Dairy Husbandry Skills

1. Controlling, handling and assessing the health of a calf

2. Training calves to drink from bucket or nipple

3. Preparing milk or milk substitute for calves and follow a feeding routine

4. Identifying signs of calving

5. Dehorning calves

6. Stomach tubing calves

7. Judging weights of heifers and cows

8. Judging cow conformation and condition score

9. Identifying lameness

10. Selecting replacement heifers and cows for breeding

11. Selecting cows for culling

12. Carrying out dry cow and mastitis therapy

13. Identifying signs of heat

14. Tail painting cows

15. Administering subcutaneous and intramuscular injections and completing animals remedies record

16. Administering pour-on and completing animal remedies record

17. Assisting at calving

18. Assessing grass availability
19. Carrying out maintenance checks on milking equipment
20. Preparing milking equipment for milking
21. Carrying out correct milking procedures
22. Carrying out cleaning procedures on milking equipment
23. Taking milk samples
24. Spraying teats
25. Mixing ration formulation

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

The provider must have the following in place to offer this award:

1. Access to farm(s) that have a dairy herd of adequate size for practical skills training and individual skills assessment
2. Suitable equipment and facilities to safely demonstrate and assess indicative dairy husbandry skills

Supporting Documentation

1. Publications from: The Health and Safety Authority of Ireland
2. Publications from: Department of Agriculture, Food and the Marine
3. Publications from: Teagasc, The Agriculture and Food Development Authority

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.

The learner must have successfully passed the skill of "controlling and handling of cattle" contained in Principles of Agriculture to access this award.

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