



National Unit specification: general information

Unit title: Beef and Suckled Calf Production (SCQF level 6)

Unit code: H2N0 12

Superclass: SH

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Summary

This Unit develops specialist skills and knowledge required to work on a beef and suckled calf farm. Learners will study key aspects of the husbandry of both a production and finishing enterprise and work with stock, carrying out a range of routine practical tasks.

This is an optional Unit within the National Certificate in Agriculture (SCQF level 6) but is also available as a free-standing Unit.

Successful completion of this Unit may facilitate progression to further study of livestock or to related employment.

Outcomes

- 1 Describe the husbandry of a beef production enterprise.
- 2 Describe the husbandry of a beef finishing enterprise.
- 3 Carry out routine tasks to maintain healthy and productive stock, and prepare stock for a given purpose.
- 4 Monitor the production and progress of cattle in a beef enterprise.

Recommended entry

While entry is at the discretion of the centre, learners would benefit from having some prior knowledge of livestock.

General information (cont)

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Credit points and level

1 National Unit credit at SCQF level 6: (6 SCQF credit points at SCQF level 6*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the support notes of this Unit specification.

National Unit specification: statement of standards

Unit title: Beef and Suckled Calf Production (SCQF level 6)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Describe the husbandry of a beef production enterprise.

Performance Criteria

- (a) Describe key aspects of suckler cow husbandry in a range of systems.
- (b) Explain the importance of the maintenance of the bull.
- (c) Describe key aspects of suckler cow feeding in a range of systems.
- (d) Describe suckler cow accommodation for a range of systems.
- (e) Describe key aspects of maintenance of suckler cow and calf health.

Outcome 2

Describe the husbandry of a beef finishing enterprise.

Performance Criteria

- (a) Identify and describe the characteristics of breeds and crosses of beef cattle for a range of rearing and finishing systems.
- (b) Describe beef cattle feeding in a range of finishing systems.
- (c) Describe beef cattle accommodation for a range of finishing systems.
- (d) Describe key aspects of maintenance of beef cattle health.

Outcome 3

Carry out routine tasks to maintain healthy and productive stock, and prepare stock for a given purpose

Performance Criteria

- (a) Handle, restrain and weigh cattle in accordance with good farm practice.
- (b) Administer medication of cattle in accordance with good farm practice.
- (c) Condition score accurately to the nearest half point.
- (d) Select and group stock for a given purpose.
- (e) Prepare stock for a given purpose.

National Unit specification: statement of standards (cont)

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Outcome 4

Monitor the production and progress of cattle in a beef enterprise.

Performance Criteria

- (a) Maintain complete and accurate records.
- (b) Calculate efficiency factors.
- (c) Compare herd performance with national standards and targets.

Evidence Requirements for this Unit

Written and/or oral and performance evidence is required to demonstrate that the learners have achieved all of the Outcomes and Performance Criteria. Evidence must be obtained under supervised conditions at appropriate points throughout the Unit. Evidence can be generated holistically, or Outcome by Outcome.

For Outcome 1, learners must provide evidence of the following in closed-book conditions:

- ◆ Description of suckler cow breeding, feeding and accommodation in relation to two husbandry systems
- ◆ Explanation of the importance of the maintenance of the bull, which must include reference to bull MOT
- ◆ Description of maintenance of suckler cow and calf health. This must include reference to prevention and control of at least three diseases or disorders in relation to both the cow and the calf

For Outcome 2, learners must provide evidence of the following in closed-book conditions:

- ◆ Descriptions of beef cattle breeds, feeding and accommodation in relation to two husbandry systems
- ◆ Description of maintenance of beef cattle health. This must include reference to prevention and control of at least three diseases or disorders

For Outcome 3, learners must provide performance evidence of the following in supervised conditions:

- ◆ Handling, restraining and weighing of at least one animal in accordance with good farm practice
- ◆ Dosing of at least one animal in accordance with good farm practice
- ◆ Condition scoring of at least five animals accurately to the nearest half point
- ◆ Selection and grouping of stock for sale appropriate to a given purpose
- ◆ Preparation of stock for sale in accordance with market requirements

National Unit specification: statement of standards (cont)

Unit title: Beef and Suckled Calf Production (SCQF level 6)

For Outcome 4, learners must provide evidence of the following in open-book conditions:

- ◆ Maintenance and completion of accurate records for at least one animal, for two different purposes
- ◆ Calculation of four efficiency factors
- ◆ Comparison of the four stated efficiency factors with national standards and benchmarks

National Unit specification: support notes

Unit title: Beef and Suckled Calf Production (SCQF level 6)

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

Whilst the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This is an optional Unit within the National Certificate (NC) in Agriculture (SCQF level 6) but is also available as a free-standing Unit.

Learners would benefit from having some prior knowledge of livestock. Where this Unit is delivered as part of the NC, it would be beneficial if learners had previously completed the Unit *Livestock Husbandry, Health and Welfare*.

In this Unit learners will develop skills and knowledge relating to the husbandry of a beef production and finishing enterprise. The range of systems could include spring or autumn calving; lowland, hill and upland; in wintered and out wintered; intensive and extensive. Learners will carry out routine tasks to maintain healthy and productive stock, and prepare the stock for market. They will learn how to monitor the production and progress of cattle in a beef enterprise.

This Unit may prepare learners for progression to Higher National Agriculture Units, or other related land-based qualifications or to related employment.

Outcome 1 will provide learners with underpinning knowledge relating to the husbandry of suckler cow and calf rearing systems. They should be aware of the annual routine of suckler cow and progeny rearing in a range of systems.

- ◆ Suckler cow breeding husbandry should include breed, service, pregnancy and parturition management
- ◆ Maintenance of the bull should include suitability of breed, bull MOT, bull condition and health
- ◆ Suckler cow feeding should include quantity and quality of feeds, types of feed (eg forages, concentrates and by-products), feeding routine and feeding area
- ◆ Suckler cow accommodation should include types of housing (eg straw, slatted, outdoor), handling facilities and waste handling and storage (both indoor and outdoor)
- ◆ Suckler cow and calf health should include bacterial, viral, fungal and nutritional diseases as well as internal and external parasites

National Unit specification: support notes (cont)

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Outcome 2 will provide learners with underpinning knowledge in relation to the husbandry of beef finishing in a range of systems including:

- ◆ Breeds and crosses of beef cattle in terms of sex, liveweight gain, food conversion efficiency, rate of maturity, slaughter age and weight
- ◆ Cattle feeding should include quantity and quality of feeds, feeding routine and feeding area
- ◆ Cattle accommodation should be discussed with reference made to types of housing handling facilities and waste handling and storage
- ◆ Beef cattle health within the finishing system should include bacterial, viral, and nutritional diseases as well as internal and external parasites

Outcome 3 provides learners with the opportunity to develop practical skills. Learners will carry out routine tasks to maintain healthy and productive stock. This will include handling, restraint and weighing in accordance with good farm practice. Welfare codes, health and safety, the crush, haltering, design of handling facilities and loading facilities should be discussed, as well as dose rates and withdrawal periods when carrying out the dosing.

Livestock record keeping and the importance of Electronic Identification (EID) should be covered, and the condition scoring of cows should be accurate to the nearest half point. The selection and preparation of stock for market should be discussed, and include the colour, size, weight, breed, body condition, fat class and confirmation, and end purpose of the group in question. Markets discussed should include slaughter, live sale, private, store and breeding outlets. Meat quality issues could be covered including bruising and 'dark, firm and dry' (DFD) in relation to handling of stock.

Outcome 4 should enable learners to monitor the production and progress of cattle in a beef enterprise. They will be expected to maintain complete and accurate records and therefore compulsory and management records (such as movement records, medicine records, and cow and calf numbers) calving difficulty, and management tags should be discussed.

Learners are expected to be able to calculate efficiency factors such as daily live weight gain (DLWG), fertility — barren ratios, calving to first service, calving index, gestation length, birth weights, 200 and 400 day weights, killing out percentage, and Food Conversion Efficiency Ratios.

This Unit is broadly aligned to the following National Occupational Standards (NOS) for Livestock Production, from Lantra:

- LP1 Assist with preparing and maintaining livestock accommodation
- LP4 Establish and maintain conditions appropriate to the welfare of livestock
- LP5 Assist with maintaining the health and well-being of livestock
- LP7 Provide feed and water to livestock
- LP32 Monitor and maintain the selection of livestock, and prepare them for transfer
- CU31 Assist with the movement of animals

National Unit specification: support notes (cont)

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Guidance on learning and teaching approaches for this Unit

The Unit should be delivered in as practical a context as possible with delivery taking place both on site to study suckler cattle enterprises and in a classroom setting to study the underpinning theory. The emphasis should always be on the practical application of knowledge and understanding.

Tutors must ensure that ensure that learners adhere to appropriate health and safety guidelines in all practical activities.

Learners would benefit from a balanced approach to learning by undertaking farm visits to suckler cow units and finishing units, and participating in classroom activities to develop knowledge and understanding of beef cattle rearing and finishing. Working in groups, various systems can be compared, and pair work can be included for practical sessions.

This Unit should provide learners with an opportunity to develop the following essential skills for life, learning and work:

- ◆ Employability — through developing practical skills in line with good farm practice and working on time limited tasks
- ◆ Sustainability — through considering the use of resources and recycling, etc
- ◆ Technical skills — through handling stock
- ◆ Organisational skills — in terms of personal management through punctuality, record keeping, etc
- ◆ Interpersonal skills — through contact with farm staff and in class groups

Opportunities for developing Core Skills

In this Unit, learners will develop knowledge and skills in how to successfully rear and finish stock in a suckler cow system. Learners will:

- ◆ Describe husbandry in a rearing and finishing system
- ◆ Suggest appropriate disease control, prevention and treatment methods
- ◆ Carry out a range of practical tasks
- ◆ Select stock for market
- ◆ Maintain records
- ◆ Make calculations

This means that as they are doing this Unit, learners may develop aspects of the Core Skills of *Communication*, *Numeracy* and *Problem Solving*.

In addition, aspects of the following Core Skills could be developed where particular learning and teaching approaches are adopted:

- ◆ *Working with Others* — through group work, eg stock handling
- ◆ *ICT* — through recording data and carrying out calculations electronically

National Unit specification: support notes (cont)

Unit title: Beef and Suckled Calf Production (SCQF level 6)

Guidance on approaches to assessment for this Unit

The following approaches to assessment are suggested.

- Outcomes 1 and 2: These could be assessed together by short answer questions, or a project.
- Outcome 3: This could be assessed by a series of practical exercises supported by an assessor observation checklist.
- Outcome 4: This could be assessed by a short assignment incorporating appropriate records.

Both the practical and written/oral elements of the Unit lend themselves to holistic assessment approaches. Learners could maintain a folio of evidence to record their work throughout the Unit.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

Disabled learners and/or those with additional support needs

The additional support needs of individual learners should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements

History of changes to Unit

Version	Description of change	Date

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