



Higher National Unit Specification

General information for centres

Unit title: Livestock Management Systems

Unit code: F2EB 35

Unit purpose: This Unit will develop candidates' skills in analysing systems of livestock production in depth to enable the planning of an appropriate management system and the critical evaluation of an existing livestock enterprise. The Unit may be suitable for candidates who are studying for a Group Award in an area related to agriculture, or the rural economy.

On completion of the Unit the candidate should be able to:

- 1 Plan a livestock management system.
- 2 Critically evaluate the management of a livestock enterprise.

Credit points and level: 1 HN credit at SCQF level 8: (8 SCQF credit points at SCQF level 8*)

**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.*

Recommended prior knowledge and skills: Though there are no formal prior knowledge requirements for this Unit it would be an advantage for candidates to have achieved the Higher National Units F2ED 34 *Livestock Production Systems*, F2EC 35 *Livestock Nutrition*, F2E8 34 *Livestock Growth, Health and Welfare* and F2E6 34 *Livestock Breeding*.

Core Skills: There are opportunities to develop the Core Skills of *Numeracy* and *Problem Solving* at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Assessment: This Unit could be jointly assessed for Outcomes 1 and 2 by two case studies.

Higher National Unit specification: statement of standards

Unit title: Livestock Management Systems

Unit code: F2EB 35

The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Plan a livestock management system

Knowledge and/or Skills

- ◆ Breeding, culling and replacement policy
- ◆ Feeding programme
- ◆ Housing, handling milking and waste management systems
- ◆ Health and welfare programme
- ◆ Marketing strategy

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ plan a breeding, culling and replacement policy
- ◆ plan a feeding programme
- ◆ select housing, handling, milking and waste management systems
- ◆ plan a health and welfare programme
- ◆ plan a marketing strategy for the products.

This Outcome will be assessed by candidates planning two livestock management systems from a list of dairy, beef, sheep, poultry or pigs.

Assessment Guidelines

This Unit could be holistically assessed by two case studies, in which candidates first plan and then critically evaluate two livestock management systems, from a list of dairy, beef, sheep, poultry or pigs.

Higher National Unit specification: statement of standards (cont)

Unit title: Livestock Management Systems

Outcome 2

Critically evaluate the management of a livestock enterprise

Knowledge and/or Skills

- ◆ Efficiency measures
- ◆ Enterprise performance
- ◆ Recommendations

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ explain the selection and use of specific efficiency measures appropriate for the evaluation of the enterprise
- ◆ analyse both the physical and financial performance of the enterprise
- ◆ critically evaluate the enterprise performance and make recommendations based on the Outcome

Assessment Guidelines

This Unit could be holistically assessed by two case studies, in which candidates first plan and then critically evaluate two livestock management systems, from a list of dairy, beef, sheep, poultry or pigs.

Administrative Information

Unit code: F2EB 35
Unit title: Livestock Management Systems
Superclass category: SM
Original date of publication: August 2008
Version: 01

History of changes:

Version	Description of change	Date

Source: SQA

© Scottish Qualifications Authority 2008

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of Higher National qualifications.

Additional copies of this Unit specification can be purchased from the Scottish Qualifications Authority. Please contact the Customer Contact Centre for further details, telephone 0845 279 1000.

Higher National Unit specification: support notes

Unit title: Livestock Management Systems

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

While 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 Unit is included in the framework of the Group Awards, HND Agriculture, HND Agricultural Science and HND Applied Bioscience.

The Unit will develop candidates' understanding of how animals should be managed in order to optimise the efficiency and financial viability of a livestock production enterprise. It includes consideration of the impact of health, welfare, market and environmental issues on production management. Candidates will be able to select two from the following five types of enterprises: dairy, beef, sheep, poultry or pigs.

A range of systems will be studied. Livestock enterprises will be planned in detail taking into account all the elements required for technical efficiency and financial success. Enterprises will be evaluated both physically and financially, and recommendations made to improve efficiency and profitability. Actual or simulated situations will be used wherever possible.

Outcome 1 will give candidates a sound overall knowledge of the principles of planning the management of livestock enterprises by covering each of the components of a management plan, for example, breeding, culling and replacement policy, feeding programme, housing, handling milking and waste management systems, health and welfare programmes and a marketing strategy.

Outcome 2 will develop the ability of candidates to critically evaluate the performance of livestock enterprises in both physical and financial terms and make recommendations to improve performance.

Evidence will generally take the form of two assignments conducted over the course of the Unit and covering both learning Outcomes.

Guidance on the delivery and assessment of this Unit

The delivery of this Unit could take the form of a mixture of lectures, tutorials and farm visits. Visits to a range of enterprises will perform an integral role in the teaching of this Unit, as will farm case studies. Ideally visits should be selected on the basis of examples of excellent and innovative management practice. Tutorials can be used to help develop critical analytical skills in candidates.

The assessment will be based on the production of management systems for two livestock enterprises for which candidates will also critically analyse in terms of their physical and financial performance.

Opportunities for developing Core Skills

There are opportunities to develop the Core Skill of *Numeracy* at SCQF level 6 in this Unit.

Higher National Unit specification: support notes (cont)

Unit title: Livestock Management Systems

Candidates will be required to undertake a number of complex calculations, including those relating to replacement and stocking rates, rationing, and efficiency factors, in planning their production system.

The delivery and assessment of this Unit may offer opportunities to develop the Core Skill of *Problem Solving* at SCQF level 6. The general skills required by its three components are the abilities to analyse a complex situation or issue; plan, organise and complete a complex task; and review and evaluate a complex problem solving activity. There is scope for candidates to utilise these skills within their planning of a livestock management system in Outcome 1, and the critical evaluation of the management of a livestock enterprise in Outcome 2.

Both Outcomes deal with complex issues, and the planning and evaluation will be complex pieces of work in their own rights. It will require strategic thinking and consideration of a number of variables (such as particular breeds and classes of livestock, feeding programmes, housing and handling etc.) in order to be produce a viable livestock management system in the first Outcome. Both critical thinking and planning skills will be required.

The second Outcome will require candidates to evaluate particular systems with justification of their conclusions, such as via the use of analysis of financial performance, and in to make recommendations based on their conclusions.

Open learning

The Unit could be delivered by blended learning with Outcome 1 and 2 delivered via distance learning in addition to some farm visits.

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

General information for candidates

Unit title: Livestock Management Systems

In this Unit you will integrate your knowledge of livestock production into management plans for specific enterprises. You will also develop skills to analyse the physical performance and financial viability of livestock enterprises. Within your management plans you will consider; breeding, culling and replacement policies, feeding and grazing strategies, housing, handling and waste management requirements, health and welfare programmes and marketing strategies. You will also use physical and financial efficiency measures to analyse enterprise performance data.

On completion of this Unit you will be able to:

- 1 Plan a livestock management system.
- 2 Critically evaluate the management of a livestock enterprise.

In Outcome 1 you will plan a livestock management system in doing so you will learn about the breeding, culling and replacement policy, feeding programmes, housing, handling milking and waste management systems, health and welfare programmes and the marketing strategy.

In Outcome 2 you will critically evaluate the management of a livestock enterprise by learning about evaluation skills, efficiency measures, enterprise performance and making recommendations.

Your learning in this Unit may take the form of a mixture of lectures, tutorials and farm visits.

You will have opportunities to develop the Core Skill of *Numeracy* to SCQF level 6, as you will be required to undertake a number of calculations (replacement and stocking rates, rationing, and efficiency factors) in planning your production system. The planning and subsequent evaluation of production systems will allow you to develop Core Skills in *Problem Solving*, also at SCQF level 6.