



National Unit specification: general information

Unit title: Pig Production (SCQF level 6)

Unit code: H2MW 12

Superclass: SH

Publication date: February 2013

Source: Scottish Qualifications Authority

Version: 02

Summary

This Unit enables learners to develop specialist practical skills and knowledge required to work on a pig unit. Learners will learn about the routine of caring for pigs, a range of practical tasks required to maintain healthy and productive pigs and about how to monitor production and progress.

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 routine of pig husbandry in a range of systems.
- 2 Carry out routine tasks to maintain healthy and productive pigs.
- 3 Monitor the production and progress of pigs.
- 4 Prepare pigs for a given purpose.

Recommended entry

While entry is at the discretion of the centre, some prior knowledge of livestock would be beneficial. This may be evidenced by achievement of the Unit *Livestock Husbandry, Health and Welfare*, or equivalent.

General information (cont)

Unit title: Pig Production (SCQF level 6)

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

Achievement of this Unit gives automatic certification of the following Core Skills component:

Complete Core Skill None

Core Skill component Critical Thinking at SCQF level 5

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit specification.

National Unit specification: statement of standards

Unit title: Pig 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 routine of pig husbandry in a range of systems.

Performance Criteria

- (a) Identify breeds and classes of pigs.
- (b) Describe pig breeding in a range of systems.
- (c) Describe appropriate pig watering and feeding in a range of systems.
- (d) Describe pig housing in a range of systems.
- (e) Describe pig finishing and marketing in a range of systems.

Outcome 2

Carry out routine tasks to maintain healthy and productive pigs.

Performance Criteria

- (a) Identify key factors in the maintenance of pig health.
- (b) Administer medication to pigs in accordance with good farm practice.
- (c) Move, handle and restrain pigs in accordance with good farm practice.
- (d) Apply an identification mark to pigs in accordance with good farm practice.
- (e) Body condition score pigs.
- (f) Recognise good health and ill health in a group of pigs.

Outcome 3

Monitor the production and progress of pigs.

Performance Criteria

- (a) Maintain pig records.
- (b) Calculate efficiency factors.
- (c) Compare herd performance in relation to national standards and benchmarks.

Outcome 4

Prepare pigs for a given purpose.

Performance Criteria

- (a) Select pigs for a given circumstance.
- (b) Explain the selection of pigs for a given purpose.

National Unit specification: statement of standards (cont)

Unit title: Pig Production (SCQF level 6)

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 under closed-book conditions:

- ◆ Identification of at least two breeds or crosses of pigs suitable for breeding in a given system
- ◆ Description of preparation for the breeding cycle and management, including body condition scoring
- ◆ Description of the watering and feeding of pigs pre and post service and pre and post farrowing, to include justification of feeds and quantities at service, and pre and post farrowing
- ◆ Description of two benefits of internal and two benefits of external accommodation
- ◆ Description of the utilisation of waste from an indoor pig herd
- ◆ Description of market requirements in terms of fat, confirmation, live weight and dead weight, and cleanliness

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

- ◆ Identification of the causes, symptoms and treatment of five diseases or disorders of pigs
- ◆ Identification of the control and prevention of five diseases or disorders of pigs

Learners must also provide performance evidence, under supervised conditions, which shows that they can:

- ◆ Administer medication to a minimum of three pigs
- ◆ Move, handle and restrain a minimum of three pigs for treatment
- ◆ Apply an identification mark to a minimum of three pigs
- ◆ Condition score five sows
- ◆ Weigh a minimum of three pigs
- ◆ Visually identify and report good or ill health and behaviour in a group of pigs

For Outcome 3, learners must provide evidence of the following under supervised, open-book conditions:

- ◆ Completion of one management and one compulsory pig record
- ◆ Calculation of four efficiency factors (farrowing rate, farrowing index, feed conversion ratio, mortality rate)
- ◆ Comparison of the four stated efficiency factors with national standards and benchmarks

National Unit specification: statement of standards (cont)

Unit title: Pig Production (SCQF level 6)

For Outcome 4, learners must provide performance evidence of the following under supervised conditions:

- ◆ Selection of pigs for a given circumstance in relation to size, weight and appearance
- ◆ Accurate explanation of pig selection with reference to the given purpose

National Unit specification: statement of standards (cont)

Unit title: Pig Production (SCQF level 6)

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

In this Unit learners will develop a range of skills and knowledge required to work on a pig unit, and it would be beneficial to have some prior knowledge of livestock.

Learners will learn about the routine of pig husbandry in a range of systems, and how to maintain healthy and productive pigs. They will also learn about monitoring the production and progress of pigs and how to prepare pigs for a given purpose.

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

Outcome 1 will provide learners with underpinning knowledge in relation to the husbandry of pigs in a range of systems. Learners should be aware of the cyclical routine of pig production in a range of systems as described below:

- ◆ Pig classes, boars, dry sows, lactating sows, piglets, weaners, growers, finishers, gilts, breeds, hybrids, service, pregnancy and farrowing management, care of boar, selection of boar, gilts and sows breeding, boar management, AI, boar: sow ratio, body condition scores
- ◆ Water requirements, periods of high and low requirements, feeds, protein, quantity and quality, feeding routine, feeding area, dry sow feeding, pre-farrowing feeding, lactating sow feeding, creep feeding, feeding methods
- ◆ Indoor/outdoor shelter, environment control, handling facilities, waste handling and storage, water and feed troughs
- ◆ Rearing gilts, finishing, live weight gain, grades- fat and conformation, kill out, slaughter age and weight, FCE, liveweight/deadweight, EBV, niche markets

Outcome 2 will provide learners with the opportunity to develop practical skills in relation to maintaining pig husbandry and health. Learners should be able to describe pig health with reference to bacterial, viral, fungal and nutritional diseases as well as internal and external parasites. They will also be expected to carry out a range of tasks including administering medicated feed and water, handling, restraining and weighing pigs, carrying out subcutaneous and intra muscular injection, foot trimming, foot bathing, body condition scoring, tagging, tattooing, paint marking, recognition of good and ill health, appearance and behaviour.

National Unit specification: statement of standards (cont)

Unit title: Pig Production (SCQF level 6)

Outcome 3 provides learners with underpinning knowledge in relation to monitoring the production and progress of pigs. Learners should know how to maintain and complete compulsory records including identification, medicines and movement records. Management records such as farrowing rates, litter records, deaths, sow records, service dates, sales etc. should also be covered.

Learners should be able to calculate efficiency factors which could include farrowing rate, farrowing index, feed conversion ratio, mortality rates, food conversion ratios and compare/benchmark these figures to national standards.

Outcome 4 should enable learners to identify and select pigs for given purposes eg weaners, stores, pork, bacon, heavy hogs, gilts, cast markets. They should be able to select and group stock in relation to age, weight, length, feet and udders. Knowledge of dead weight and live weight outlets should be covered with reference made to cleanliness of animals, particularly for the slaughter market.

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
- LP 4 Establish and maintain conditions appropriate to the welfare of livestock
- LP 5 Assist with maintaining the health and wellbeing of livestock
- LP 7 Provide feed and water to livestock
- LP 32 Monitor and maintain the selection of livestock, and prepare them for transfer

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 pig 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 pig Units, and participating in classroom activities to develop knowledge and understanding of pig production and marketing. Working in groups, various systems can be compared, and group and individual work can be included for practical sessions.

By adopting the above learning and teaching approaches and/or through the Outcomes and corresponding Evidence Requirements, the Unit should provide learners with an opportunity to develop the following essential skills for life, learning and work:

National Unit specification: statement of standards (cont)

Unit title: Pig Production (SCQF level 6)

- ◆ 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

Practical delivery of this Unit could be integrated with the Unit *Livestock Husbandry, Health and Welfare*.

Opportunities for developing Core Skills

In this Unit, learners will develop knowledge and skills in how to successfully rear and finish stock in a range of pig production systems, through the knowledge of husbandry, and monitoring of progress in a range of systems, coupled with practical skills through carrying out various stock tasks. Learners will:

- ◆ Describe and explain key aspects of the husbandry of pigs
- ◆ Suggest appropriate disease control, prevention and treatment methods
- ◆ Select feed types and quantities
- ◆ Monitor pig production and progress
- ◆ Carry out a range of practical tasks in accordance with good farm practice
- ◆ Make calculations and comparisons
- ◆ Justify selection of pigs for a given purpose

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*, eg through recording data electronically, and carrying out calculations

This Unit has the Critical Thinking component of Problem Solving embedded in it. This means that when candidates achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 5.

National Unit specification: statement of standards (cont)

Unit title: Pig Production (SCQF level 6)

Guidance on approaches to assessment for this Unit

Both the practical and written/oral elements of the Unit lend themselves to holistic assessment approaches. The following approaches to assessment are suggested:

- Outcome 1: This could be assessed by short answer or restricted response questions.
- Outcome 2: This could be assessed by short answer questions, and a series of practical exercises supported by an assessor observation checklist.
- Outcome 3: This could be assessed by an assignment.
- Outcome 4: This could be assessed by a practical/oral exercise supported by an assessor observation checklist.

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
02	Core Skills Component Critical Thinking at SCQF level 5 embedded.	04/02/2013

© Scottish Qualifications Authority 2012

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.

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