



## Higher National Unit specification

### General information for centres

**Unit title:** Poultry Meat Production Systems

**Unit code:** F43B 34

**Unit purpose:** This Unit is designed to enable candidates to develop their knowledge and skills of the poultry meat production business. The Unit covers production systems and bird management, including performance targets, their housing, feeding, watering, and environmental aspects, at all levels of production from the young chick, through to slaughter. It also deals with matters of production biosecurity and production systems in relation to the social, political and economic environment of global poultry production.

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

- 1 Explain the social, political and economic structure of the global poultry meat industry
- 2 Describe the management of broiler breeder stock
- 3 Explain management practices for poultry meat production
- 4 Explain the use of performance targets in the production cycle

**Credit points and level:** 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7\*)

*\*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:** Although no prior knowledge is required, it would be beneficial if candidates had prior knowledge of poultry systems and husbandry. It is also recommended candidates have sufficient mathematical skills to understand graphical and tabulated data equivalent to SCQF level 5.

**Core Skills:** There are opportunities to develop the Core Skill of *Communication* at SCQF level 6, and the Core Skill component Using Number of the Core Skill *Numeracy* also 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 may be assessed using two instruments of assessment. Outcomes 1, 2 and 3 may be assessed by means of short, investigative assignments. Outcome 4 may be assessed using a case study.

## **Higher National Unit specification: statement of standards**

**Unit title:** Poultry Meat Production Systems

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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**

Explain the social, political and economic structure of the global poultry meat industry

#### **Knowledge and/or Skills**

- ◆ Global poultry meat industry
- ◆ Poultry meat production systems
- ◆ Social factors
- ◆ Political factors
- ◆ Trade economics

#### **Evidence Requirements**

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

- ◆ describe the size of the poultry industry in each of the five principal poultry meat trade areas in terms of volume of production and market share
- ◆ explain the influence of three contrasting social factors on a country's poultry meat production
- ◆ explain by reference to two specific examples, the impact of political decisions on poultry meat production and trade at a global level
- ◆ explain three examples of the impact on the economic standing of a country of trading in poultry meat and poultry meat products

This is an open-book assessment.

#### **Assessment Guidelines**

It is recommended that this Outcome is assessed by means of an investigative assignment in which the candidate considers and reports on the poultry meat production industry in the prevailing socio-politico-economic climate. A report extending to about 1,000 words, or equivalent, should be sufficient to cover all Evidence Requirements.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Poultry Meat Production Systems

### **Outcome 2**

Describe the management of broiler breeder stock

#### **Knowledge and/or Skills**

- ◆ Broiler breeder rearing house management
- ◆ Broiler breeder laying house management

#### **Evidence Requirements**

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

- ◆ describe a suitable light and weight control programme for the management of broiler breeder stock in a rearing house
- ◆ describe the optimum equipment requirements for broiler breeding stock in the laying house

This is an open-book assessment.

#### **Assessment Guidelines**

This Outcome may be assessed using an investigative assignment. A report extending to about 1,000 words, or equivalent, should be sufficient to cover all Evidence Requirements.

This Outcome may also be assessed in conjunction with Outcome 3. Please see further information under Assessment Guidelines for Outcome 3.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Poultry Meat Production Systems

### **Outcome 3**

Explain management practices for poultry meat production

#### **Knowledge and/or Skills**

- ◆ House management
- ◆ Environmental control
- ◆ Feeding and watering equipment
- ◆ Handling birds
- ◆ Slaughter procedures

#### **Evidence Requirements**

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

- ◆ explain the cleanout and house preparation procedure for a broiler or turkey house
- ◆ explain the five programmes for brooding, temperature, lighting, biosecurity and hygiene for a broiler or turkey flock
- ◆ explain a minimum of three advantages and three disadvantages for two types of feeding or watering equipment
- ◆ explain the procedure for catching, handling and transport of mature birds to protect their welfare and maintain economic return
- ◆ describe the eight key stages of the slaughter process from lairage to evisceration

This is an open-book assessment.

#### **Assessment Guidelines**

This Outcome may be assessed using an investigative assignment. A report extending to about 1,000 words, or equivalent, should be sufficient to cover all Evidence Requirements.

Alternatively, Outcome 2 and 3 may be assessed holistically by the use of an assignment in which the candidate explores all aspects of the management of a broiler or turkey flock from breeder stock to slaughter and reports back. A report extending to about 2,000 words, or equivalent, should be sufficient to cover all Evidence Requirements if the assessments are combined.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Poultry Meat Production Systems

### **Outcome 4**

Explain the use of performance targets in the production cycle

#### **Knowledge and/or Skills**

- ◆ Flock data sources
- ◆ Performance figures and standards
- ◆ Performance figure evaluation
- ◆ Remedial actions

#### **Evidence Requirements**

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

- ◆ with reference to the current European standards, calculate feed conversion and efficiency performance data Feed Conversion Ratio (FCR) and European Efficiency Performance Factor (EEPF) from given flock data
- ◆ evaluate performance data against current breed standards and draw conclusions regarding the performance of the flock
- ◆ explain the impact of three contrasting factors on performance standards
- ◆ explain two possible remedial actions that could be taken to correct abnormal performance figures from a study of flock data

This is an open-book assessment.

#### **Assessment Guidelines**

This Outcome may be assessed using a case study. Sufficient information must be supplied in the flock data to allow candidates to generate all Evidence Requirements.

## Administrative Information

**Unit code:** F43B 34  
**Unit title:** Poultry Meat Production Systems  
**Superclass category:** SH  
**Original date of publication:** August 2008  
**Version:** 01

### History of changes:

Version	Description of change	Date

**Source:** SQA

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## **Higher National Unit specification: support notes**

### **Unit title: Poultry Meat Production 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**

Global poultry meat production has grown steadily over the years as per capita consumption has increased. As a result, the poultry industry has experienced significant new growth and expansion programmes to meet consumer demands. Poultry meat production systems show the quickest response to increasing demand, mainly due to their intensiveness and short production cycles. The industry requires skilled workers at all levels to meet these demands and to continue to progress. Hence this Unit, although focussed on UK poultry production, needs to consider the UK industry in the context of a highly dynamic, global industry in which new and emerging techniques may come from anywhere in the world.

This Unit will analyse the modern poultry meat and replacement breeder industry in terms of structure and consider all commercial systems for meat production. It will examine the global export and import markets for the major poultry meat products and by association welfare and quality assurance issues.

In Outcome 1 candidates will explore the size and geographical distribution of the global poultry meat trade and consider the factors that influence a country's production and trade. This Outcome aims to improve a candidates understanding of the issues which affect today's poultry meat industry and determine which specific aspects need to be considered to predict a country's level of production and desire for specific types of poultry meat. Candidates should study the industry in the current five main areas, which are at the time of writing: USA, China, Brazil, Mexico, and the EU but this may change.

Outcome 2 addresses the issue of producing replacement stock through house management and fitting out of rearing and lying houses. Candidates should examine the lighting systems and bodyweight control programmes employed by industry to rear replacement broiler breeders and the equipment used in the specific production systems for layer and rearing houses. It is essential to control the bodyweight of broiler breeders in the growing phase as this can impact on the fertility of both male and female broiler breeders and lighting systems can be used to control the onset of maturity in broiler breeder birds.

Outcome 3 — Poultry meat production is a business where large numbers of birds produce a relatively small profit. With such a small profit margins, candidates may examine the many factors that affect the cost of production. Although each factor by itself may only exert a minor influence, it is the combined effect that will ultimately, whether high or low, affect the final profit. Therefore the framework for this Outcome could be maintaining profitable production of high quality poultry meat through careful management, selection of the correct equipment, housing, environmental controls, catching, transportation and slaughter. The candidate should consider all stages of the slaughter process including shackling, stunning, killing, bleeding, scalding, plucking, removal of head and paws and evisceration.

## Higher National Unit specification: support notes (cont)

### Unit title: Poultry Meat Production Systems

Outcome 4 explains the two main systems of calculating a flock's performance and provides details of the data required to do so. Candidates could be encouraged to become practised at comparing these results to those of breed standards and identifying the reasons for any discrepancies. Several factors can be considered when comparing flock performance and it is important to recognise expected or target results. Equally as important is remedial action and candidates should be guided to independently identify the reasons and corrective actions which should be taken when results deviate from those of the breed standards.

### Guidance on the delivery and assessment of this Unit

The Unit is specifically designed for use as part of a Group Award in poultry production and it is best studied in this context. The Unit is expected to be delivered primarily in a classroom environment. However, every opportunity should be sought to investigate poultry systems in a working environment. Failing this, the use of poultry company videos and DVDs and access to examples of the equipment used in poultry meat building such as feeders and drinkers, to enable investigation of their individual characteristics is desirable.

It is suggested that the Unit is assessed as follows: a short investigative assignment of about 1,000 words (or equivalent) for Outcome 1, a 2,000 word (or equivalent) combined assignment report for Outcomes 2 and 3 and a case study assessment for Outcome 4. This is because the comprehension of Outcome 1 can best be demonstrated by researching current events occurring in the industry. Outcomes 2 and 3 will require the candidate to study and detail production systems of a selected meat Unit that may be tailored to their production system interest. Finally a short case study for Outcome 4 is considered suitable as the information would be collated analysed by members of the poultry industry to assess the success of a poultry enterprise.

#### *Opportunities for developing Core Skills*

The investigative techniques used in Outcome 1, 2 and 3 and the production of evidence entail the research of information about industry standard terminology and conventions and reporting back on these findings. Hence, there is ample opportunity to develop the Core Skill of *Communication* at SCQF level 6. In addition; the final Outcome requires the collation and interpretation of complex numerical data, thus providing opportunities to develop the Core Skill of *Numeracy* also to SCQF level 6, although there is no automatic certification of Core Skills or Core Skills components.

### Open learning

It is possible for this Unit to be completed by distance learning with the proviso that access to poultry housing and equipment should be negotiated by the candidate.

### 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](http://www.sqa.org.uk)).



## General information for candidates

### Unit title: Poultry Meat Production Systems

The production of poultry meat is carried out by a highly specialised industry that has been at the forefront of major developments in industrialisation and efficiency for more than half a century. Very few other agricultural industries have changed as rapidly and completely from small-scale backyard flocks to large, highly specialised intensive Units as has the poultry meat industry. These changes have meant that all those involved with the management of the poultry Units, at all levels, have had to continuously develop their skills to stay inline with the industry's developments.

The Unit is designed to increase your understanding of the factors that influence the global poultry meat industry. You will explore the social, political and economic structure of the world poultry meat industry and examine the geographical distribution, organisation and marketing patterns of poultry meat production. The Unit goes on to look at the production of poultry meat and you will consider the breeding stock as well as the meat birds themselves: the influences of nutrition, housing, and environment are all considered together with the equipment choices. You will learn about the key performance measures and you will learn how to compare a flock performance with production standards. On successful completion of the Unit, you will be well equipped to serve the needs of the modern poultry producer.

This Unit may be assessed using two instruments of assessment. Outcome 1 and 2 and 3 may be assessed by means of short, investigative assignments. Outcome 4 may be assessed using a case study.

There are opportunities to develop the Core Skill of *Communication* at SCQF level 6, and the Core Skill component Using Number of the Core Skill *Numeracy* also at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.