



## National Unit specification: general information

**Unit title:** Pesticide Application: an Introduction (SCQF level 5)

**Unit code:** H287 11

**Superclass:** SL

**Publication date:** August 2012

**Source:** Scottish Qualifications Authority

**Version:** 01

### Summary

This Unit enables candidates to demonstrate knowledge associated with the handling and use of pesticides within the framework of current legislation. The Unit is not equivalent to *Pesticide Application 1* certification but provides candidates with the knowledge and skills which may allow them to progress to *Pesticide Application* Certification. This is an optional Unit within the National Certificate in Agriculture at SCQF level 6 but is also available as a free-standing Unit. This Unit is suitable for candidates who have no previous knowledge in this area.

### Outcomes

- 1 Identify the legislation and codes of practice governing the use of pesticides and demonstrate safe practice.
- 2 Describe the correct procedures related to storing, applying and disposing of pesticides.
- 3 Complete pesticide records as required by legislation.

### Recommended entry

Entry is at the discretion of the centre.

### Credit points and level

1 National Unit credit at SCQF level 5: (6 SCQF credit points at SCQF level 5\*)

*\*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.*

## **General information (cont)**

**Unit title:** Pesticide Application: an Introduction (SCQF level 5)

### **Core Skills**

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

There is no automatic certification of Core Skills or Core Skills components in this Unit.

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

### **Unit title:** Pesticide Application: an Introduction (SCQF level 5)

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**

Identify legislation and codes of practice governing the use of pesticides and demonstrate safe practice.

##### **Performance Criteria**

- (a) Identify codes of practice and current legislation, relating to the use of pesticides within the land-based industry.
- (b) Identify health and safety requirements when handling or applying pesticides.
- (c) Demonstrate the safe use of Personal Protective Equipment (PPE).

#### **Outcome 2**

Describe the correct procedures related to storing, applying and disposing of pesticides.

##### **Performance Criteria**

- (a) Define pesticide terms.
- (b) Interpret pesticide product information from labels and data sheets.
- (c) Describe the measures for storage of pesticides.
- (d) Describe the application of a pesticide.
- (e) Describe the procedures for disposing of unused chemicals.
- (f) Describe the emergency procedures in the event of contamination.

#### **Outcome 3**

Complete pesticide records as required by legislation.

##### **Performance Criteria**

- (a) Identify the pesticide records required by legislation.
- (b) Complete an accurate record of pesticide application activities to meet the requirements of the current legislation/regulations for a given farm situation.
- (c) Explain the importance of accurate record keeping.

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

**Unit title:** Pesticide Application: an Introduction (SCQF level 5)

### Evidence Requirements for this Unit

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

#### Outcome 1

Candidates must provide written and/or oral evidence, in closed-book conditions, to show that they can:

- ◆ identify the aspects of legislation and codes of practice that apply to the storage, use and disposal of pesticides.
- ◆ identify all health and safety measures to be put in place to protect: operators, other employees and third parties.

Candidates must provide performance evidence to show the correct procedure for putting on and removing personal protective equipment.

#### Outcome 2

Candidates must provide written and/or oral evidence, in closed-book conditions, to show that they can:

- ◆ define the terms fungicide, herbicide, insecticide, adjuvant, SOLA, dose, and volume.
- ◆ interpret the manufacturers' recommendations for one fungicide, one herbicide and one insecticide.
- ◆ describe the stages for the application of one pesticide.
- ◆ describe the procedures for disposing of unused chemicals, empty containers and washing water.
- ◆ describe the emergency procedures and actions required to decontaminate:
  - an individual
  - a group
  - the area surrounding a spillage.

#### Outcome 3

Candidates must provide written and/or oral evidence to show that they can:

- ◆ identify the records required by legislation.
- ◆ complete of an accurate record of pesticide application activities for a given farm situation, to meet the requirements of the current legislation/regulations. This should include date, operator's name and address, dose rate, volume rate, area of application, crop type, growth stage, weather conditions, and special precautions.
- ◆ explain two reasons why accurate record keeping is important.

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

### **Unit title:** Pesticide Application: an Introduction (SCQF level 5)

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 at SCQF level 6 but is also available as a free-standing Unit.

In this Unit, candidates will gain knowledge of pesticides and their application. They will learn about legalisation and codes of practice that are commonly used in the land-based industry. They will gain awareness of the requirements for further training to achieve Pesticide Application Certification. This Unit should also prepare candidates for progression to Higher National Agriculture Units, Scottish Vocational Qualifications or related employment.

In Outcome 1 candidates will look at appropriate legislation and codes of practice relating to the storage and use of pesticides, and disposal of waste. They should have practical experience of the required procedures for putting on and removing Personal Protective Equipment (PPE). They will ensure the equipment is relevant to the type of material being handled. In addition they will learn about health surveillance records and issues that could affect operators and others, including symptoms of pesticide poisoning.

In Outcome 2, candidates should learn to interpret recommendations from a wide selection of product labels and data sheets which should include: fungicides, herbicides and insecticides. Key terms such as adjuvant, SOLA, dose and volume should be defined/explained by the tutor.

Candidates must be aware of the risks to hedgerows and waterways, susceptible crops, humans, animals and beneficial insects. They should also be aware of the risks associated with seepage and container disposal, decontaminating equipment, disposing of unused diluted chemical, water washings and rinsing containers. They should understand the need to consider time of day, spray drift, nozzle size and pressure, boom height, wind speed, temperature, type of formulation, warning notices to neighbours, techniques for mixing and types of chemicals. They should also learn about how operators or others may become contaminated by spillage, burst hose, tank overflow. Candidates should be taught the appropriate procedures for decontamination, eg removing contaminated clothing and washing it and then attending a GP with the product data sheet. They should be aware of how to deal with spillage or leakage of pesticides including informing the relevant authorities, keeping people and animals away from the area and soaking up the spillage with appropriate absorbent materials.

In Outcome 3, candidates should complete field records as required by assurance schemes and legislation. They should also learn about stock records and the length of time that pesticide application records should be kept, as well as the type of records that could be kept. These should include the date of application, operator name and address, dose rate, volume rate, area of application, crop type, growth stage, weather conditions and special precautions.

## National Unit specification: support notes (cont)

**Unit title:** Pesticide Application: an Introduction (SCQF level 5)

### Guidance on learning and teaching approaches for this Unit

This Unit should be delivered in as practical a context as possible with delivery taking place in the workshop/field with appropriate equipment, and classroom/ICT suite as appropriate. Emphasis should always be placed on health and safety and on the practical application of knowledge and understanding. Simulated products should be used at all times. A range of product labels and associated literature should be freely available as well as a range of current protective clothing.

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

- ◆ Sustainability — through considering the use of resources.
- ◆ Organisational skills — in terms of personal management through record keeping.

### Guidance on approaches to assessment for this Unit

The following approaches to assessment are suggested:

Outcome 1: Individual questioning and practical demonstration.

Outcome 2: Short answer questions.

Outcome 3: Completed records sheets.

### 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 candidate 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)*.

### Opportunities for developing Core Skills

In this Unit candidates will develop knowledge and skills in the use of pesticides within the land-based industry. Candidates will:

- ◆ identify appropriate PPE and work safely.
- ◆ measure mixes and dilutions.
- ◆ follow instructions.
- ◆ explain appropriate codes of practice.
- ◆ complete records for pesticide application.

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

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This means that as they are doing this Unit candidates 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 to collect information

### **Disabled candidates and/or those with additional support needs**

The additional support needs of individual candidates 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](http://www.sqa.org.uk/assessmentarrangements)

## History of changes to Unit

Version	Description of change	Date

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