

## **SQA Advanced Unit Specification**

### **General information for centres**

**Unit title:** Pesticide Application 1

**Unit code:** HW7N 47

**Unit purpose:** This unit investigates and develops the underpinning knowledge and skills involved in the safe handling, transport, storage and application of pesticides. It addresses key issues in health, safety and environmental legislation as well as core skill requirements in numeracy. In addition, it prepares the candidate for National Proficiency Test Council modules in Safe Use of Pesticides should this be a desired progression. It is relevant to all candidates in Horticulture, Agriculture and other land-based industries where pesticide use in plant or crop protection may be required.

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

1. Demonstrate an understanding of environmental and wildlife considerations prior to pesticide application.
2. Describe a safe system for the use, handling, storage, transport, and disposal of pesticides.
3. Inspect, prepare and calibrate an applicator for work.
4. Carry out post-application procedures.

**Credit value:** 1 SQA Credit at SCQF level 7: (8 SCQF credit points at SCQF level 7)

*SCQF (the Scottish Credit and Qualifications Framework) brings Scottish qualifications into a single framework of 12 levels ranging from SQA National 1 to doctorates. The SCQF includes degrees; SQA Advanced Certificate/Diplomas; SQA National Qualifications; and SVQs. Each SQA unit is allocated a number of SCQF credit points at a specific level. 1 SCQF point = 10 hours of learning. Candidates are normally expected to input a further number of hours, matched to the credit value of the unit, of non-contact time or candidate-led effort to consolidate and reinforce learning.*

**Recommended prior knowledge and skills:** It would be beneficial if candidates had prior working experience in plant or crop protection and pesticide application or were undertaking a unit in plant protection in parallel.

**Core skills:** There may be opportunities to gather evidence towards core skills in this unit, although there is no automatic certification of core skills or core skills components.

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**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:** The nature of the unit is such that it should be possible to effectively integrate the assessment of Outcomes 1, 2 and 3 in a single assessment. Assessment for Outcome 4 may also be integrated or may be assessed separately.

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### **SQA Advanced unit specification: statement of standards**

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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**

**DEMONSTRATE AN UNDERSTANDING OF ENVIRONMENTAL AND WILDLIFE CONSIDERATIONS PRIOR TO PESTICIDE APPLICATION**

##### **Knowledge and/or skills**

- Environmental assessment
- Designated areas
- Timing
- Weather/soil conditions
- Non-target organisms
- Notification of intent
- In or near water
- Buffer zones

##### **Evidence requirements**

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can understand environmental and wildlife considerations with respect to pesticide use. Each candidate should be able to demonstrate all the knowledge and skills listed.

##### **Assessment guidelines**

Assessment should be within the context of the vocational area of the candidate and wherever possible should relate to a practical workplace experience or site visit. Where this is not possible then an appropriate scenario should be created.

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### **Outcome 2**

DESCRIBE A SAFE SYSTEM FOR THE USE, HANDLING, STORAGE, TRANSPORT AND DISPOSAL OF PESTICIDES

#### **Knowledge and/or skills**

- Legislative requirements
- Interpretation of labels
- Personal safety (contamination, PPE, hygiene)
- Storage and transport of pesticides
- Disposal
- First Aid

#### **Evidence requirements**

Integrated with Outcomes 3 and 4.

#### **Assessment guidelines**

Integrated with Outcomes 3 and 4.

### **Outcome 3**

INSPECT, PREPARE AND CALIBRATE AN APPLICATOR FOR WORK

#### **Knowledge and/or skills**

- Safe working practices
- Calibration of application equipment
- Operation of application equipment

#### **Evidence requirements**

Integrated with Outcomes 2 and 4

#### **Assessment guidelines**

Integrated with Outcomes 2 and 4.

### **Outcome 4**

CARRY OUT POST-APPLICATION PROCEDURES

#### **Knowledge and/or skills**

- Decontamination and cleaning of applicators
- Personal decontamination
- Storage of equipment
- Records

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### **Evidence requirements**

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can describe safe procedures for the handling, storage, transport, preparation of pesticides, and for the operation, cleaning and storage of applicators. Each candidate should be able to demonstrate all the knowledge and skills listed but it would be possible to sample them. If knowledge and skills are being sampled then a different sample of the knowledge and skills items is required each time the outcomes are assessed.

### **Assessment guidelines**

Assessment should take the form of a written or oral assessment under controlled conditions, either within the workplace or in a college environment. With written assessment, a range of assessment methods should be adopted, including restricted response and multiple choice questions, and these may include prior knowledge questions. It would be possible to assess a candidate by means of a practical assessment using observation and questioning, a written paper, or a combination of each.

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### **Administrative Information**

**Unit code:** HW7N 47

**Unit title:** Pesticide Application 1

**Superclass category:** SC

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**FURTHER INFORMATION:** Call SQA's Customer Contact Centre on 44 (0) 141 500 5030 or 0345 279 1000. Alternatively, complete our [Centre Feedback Form](#).

## **SQA Advanced Unit Specification**

### **SQA Advanced unit specification: support notes**

#### **Unit title:** Pesticide Application 1

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**

The aims of this unit are to investigate the practical issues involved in the safe handling, transport, storage, preparation and use of pesticides in the plant and crop health sectors. It also prepares the candidate for examination for Certification in Pesticide Application (FEPA). In addition, it addresses key issues in Health & Safety, Legislation and Environmental Safety as well as contributing to core skill requirements in numeracy. It is relevant to all candidates of Horticulture, Agriculture and other land-based industries where pesticide use may be required.

#### **Guidance on the delivery and assessment of this unit**

Outcome 1 addresses environmental and wildlife considerations with respect to the use of pesticides and should form a continuous underpinning theme throughout.

Outcome 2 investigates the safe use, handling, storage, transport and disposal of pesticides; Outcome 3 deals with the preparation and calibration of applicators for work, and Outcome 4, post-application procedures. While this is vocational in nature, an emphasis should be placed throughout on the management decisions in pesticide application and the employer's responsibility in providing adequate resources and safe working practices.

A wide range of application equipment could be used in the delivery of the unit although it is anticipated that for the majority of the candidates either hand-held knapsack sprayers or conventional tractor-mounted sprayers would be appropriate, according to their vocational background and interest. However, this does not exclude the use of more specialised applicators if appropriate to the candidate.

#### **Open learning**

This unit could be delivered by distance learning. It is probable that candidates would need to attend the centre for assessment, though this could be done in other locations under approved supervision. Where assessment is by distance learning it is recommended that a single assessment be delivered in a supervised environment under controlled conditions.

For information on open learning, please refer to the SQA guide *Assessment and Quality Assurance of Open and Distance Learning* (SQA 2001).

### **Equality and inclusion**

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners will be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements).



### **General information for candidates**

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This unit investigates and develops the underpinning knowledge and skills involved in the safe handling, transport, storage and application of pesticides. It addresses key issues in health, safety and environmental legislation as well as core skill requirements in numeracy. In addition, it prepares the candidate for National Proficiency Test Council modules in Safe Use of Pesticides should this be a desired progression. It is relevant to all students in Horticulture, Agriculture and other land-based industries where pesticide use in plant or crop protection may be required.

Outcome 1 addresses environmental and wildlife considerations with respect to the use of pesticides and should form a continuous underpinning theme throughout.

Outcome 2 investigates the safe use, handling, storage, transport and disposal of pesticides; Outcome 3 the preparation and calibration of applicators for work and Outcome 4, post-application procedures. While this is vocational in nature, an emphasis will be placed throughout on the management decisions in pesticide application and the employer's responsibility in providing adequate resources and safe working practices.

A wide range of application equipment could be used in the delivery of the unit although it is anticipated that for the majority of candidates either hand-held knapsack sprayers or conventional tractor-mounted sprayers would be appropriate, according to their vocational background and interest. However, this does not exclude the use of more specialised applicators, if appropriate to the candidate.

Through this unit you will gain knowledge and skills appropriate to both operators and managers in the land-based industries, enabling, if desired, progression to examination in professional qualifications in pesticide application.