

Higher National Unit Specification

General information for centres

Unit title: Pesticide Application 1

Unit code: D7W5 34

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 HN 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 Access 1 to doctorates. The SCQF includes degrees; HNC/Ds; 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. HN 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.

General information for centres

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.

Higher National 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.

Higher National Unit specification: statement of standards (cont)

Unit title: Pesticide Application 1

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.

Higher National Unit specification: statement of standards (cont)

Unit title: Pesticide Application 1

Outcome 4

CARRY OUT POST-APPLICATION PROCEDURES

Knowledge and/or skills

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

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 which may include prior knowledge questions. It would be possible to assess as a practical assessment using observation and questioning, a written paper or a combination of each.

Administrative Information

Unit code: D7W5 34

Unit title: Pesticide Application 1

Superclass category: SC

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Higher National Unit specification: support notes

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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 the preparation and calibration of applicators for work and outcome 4, post-application procedures. Whilst this is vocational in nature, an emphasis should be placed throughout on the management decisions in pesticide application and the employers 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).

Higher National Unit specification: support notes (cont)

Unit title: Pesticide Application 1

Special needs

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs and Candidates for whom English is an Additional Language* (SQA, 2000).

General information for candidates

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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. Whilst this is vocational in nature, an emphasis will be placed throughout on the management decisions in pesticide application and the employers 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.