



Technical and Vocational Education and Training (TVET) Council



**Occupational Standards
of Competence**

**Agricultural
Entrepreneurship**

Level 1

Balmoral Gap, Hastings, Christ Church, Barbados

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The Barbados Entrepreneurship Foundation
Nature Care

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Qualification Overview

NVQB

in

Agricultural Entrepreneurship

Level 1

NVQ in Agricultural Entrepreneurship- Level 1

Who is the qualification for?

This unit is aimed at secondary school students in the third to fifth forms, and persons who may have left school and are already in, or are about to enter the workforce. It is for those individuals who have an interest in agriculture, horticulture and related disciplines. The qualification aims to prepare the target persons by emphasizing basic skills needed for the world of work and also to introduce them to how they need to think so as to recognize and take advantage of entrepreneurial opportunities.

Jobs within the occupational area

Relevant occupations include:

- Nursery Attendants/Operators
- Small-scale Farmers
- Small Business Operators

This list is not exhaustive and only serves to illustrate the breadth of the qualification.

Where could it be used?

These competencies are for persons who are likely to be in roles where, for example, their duties include:

- Engaging in business and entrepreneurship studies
- Engaging in business activity, including preparing and marketing products

A070201 - APPROVED NATIONAL VOCATIONAL QUALIFICATION STRUCTURE

AGRICULTURAL ENTREPRENEURSHIP - LEVEL 1

To achieve the full qualification, candidates must complete eight (8) units in total made up of six (6) mandatory units plus two (2) optional units. Candidates can also take additional units, although these are not required to complete the qualification.

<u>MANDATORY UNITS (ALL MUST BE COMPLETED)</u>	<u>CODE</u>
1. Create a business start-up plan	UA03601
1.1 Create a business start-up plan	
2. Manage business finances	U93602
2.1 Manage business finances	
3. Contribute to managing a plant nursery operation	UA03801
3.1 Start nursery operation	
3.2 Maintain and manage nursery operation	
4. Establish and maintain a crop	UA03901
4.1 Establish the crop	
4.2 Maintain the crop	
5. Prepare and market a product	UA04001
5.1 Prepare the product	
5.2 Market the product	
6. Maintain safe and effective working practices	U92502
6.1 Maintain the safety of self and others in the workplace	
6.2 Maintain effective working relationships with others	
6.3 Maintain and develop personal performance	

ELECTIVE UNITS (Candidates are required to complete any two (2) for full certification)

- 7. Contribute to managing a livestock rearing operation** **UA04101**
- 7.1 Feed and water farm animals
 - 7.2 Record relevant data
- 8. Contribute to the implementation of a pest control programme** **UA04201**
- 8.1 Determine the presence of pests
 - 8.2 Assist in implementing a pest control programme
 - 8.3 Monitor the programme
- 9. Organise work activities** **UA04301**
- 9.1 Organise work activities
 - 9.2 Monitor work efficiency
 - 9.3 Maintain records
- 10. Deliver reliable customer service** **U73603**
- 10.1 Give consistent service to customers
 - 10.2 Check customer service delivery

UA03601**Create a business start-up plan**

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to develop a basic business plan. Candidates will be required to collect specific information and use it to compile a business start-up plan document.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

1. Create a business start-up plan
 - 1.1 Collect information to complete each section in the business plan workbook.
 - 1.2 Prepare a summary document using the information from the workbook.
 - 1.3 Review the summary document with the appropriate person and make any recommended changes.

RANGE STATEMENT

No range

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. How to start a business and why a start-up plan is important
2. How to determine what resources are needed to start a business.
3. What type of business partnerships exist.
4. How to research markets.
5. How to determine pricing.
6. What are the sources of finance for a business and how these can be accessed.
7. Where technical help to start a business can be obtained.
8. How to register a business.
9. What legislation governs business activities and why knowledge of this is important.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, and underpinning knowledge on **one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

U93602**Manage business finances**

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to manage the finances of a business. Candidates should be able to prepare a basic budget, monitor revenue and expenditure, and produce a cash flow statement.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | | | |
|----|-------------------------|-----|---|
| 1. | Manage business finance | 1.1 | Determine source of finance in accordance with the business plan. |
| | | 1.2 | Use appropriate sources of advice to plan the business finance. |
| | | 1.3 | Prepare a budget in accordance with the business plan. |
| | | 1.4 | Monitor revenue, expenditure and cash flow over a specified period. |
| | | 1.5 | Maintain records of financial transactions and produce a monthly cash flow statement. |

RANGE STATEMENT

All range statements must be assessed:

1. Sources of advice:

- Banking specialists
- Accounting specialists

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What financial targets are important to the business.
2. How to identify the different types of financial help that may be available.
3. Where specialist advice can be obtained and how to choose an appropriate advisor.
4. How to construct a budget and why this is important.
5. What financial management systems are appropriate for the business.
6. How to determine cash flow requirements.
7. How to prepare a cash flow statement.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge on **more than one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence of competence may be obtained through a variety of methods including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)
- Professional discussion

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

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UA03801

Contribute to managing a plant nursery operation

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to maintain the operation of a plant nursery. Plants may be vegetable seedlings, ornamental plant cuttings, tree or orchard crops, or turf grass, and may be containerised (pots/bags, seedling trays). Candidates will be required to assist in managing the nursery operation, perform all the necessary activities to develop the product(s) through the various stages, and maintain appropriate records of the operation.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | | |
|----|---|--|
| 1. | Start nursery operation | 1.1 Obtain the necessary tools, materials and personal protective equipment for the job. |
| | | 1.2 Prepare the growing medium in accordance with instructions from the appropriate persons and establish the planting material . |
| | | 1.3 Maintain accurate records of all inputs associated with the management of the nursery in accordance with workplace requirements. |
| 2. | Maintain and manage the nursery operation | 2.1 Carry out all necessary activities to maintain plant health during growth. |
| | | 2.2 Select and use appropriate methods to maintain nursery structures and surfaces. |
| | | 2.3 Dispose of all waste in accordance with workplace and environmental requirements. |
| | | 2.4 Maintain accurate records of activities in the maintenance of the nursery operation in accordance with workplace requirements. |
| | | 2.5 Record the costs of all inputs used in the management of the operation in accordance with workplace requirements. |

RANGE STATEMENT

All range items must be assessed:

1. Planting material:

- Seeds
- Cuttings

2. Maintain:

- Watering
- Fertilising
- Controlling unwanted vegetation
- Observing and controlling crop pests

3. Appropriate methods:

- Sanding
- Painting and coating
- Gravelling

4. Waste:

- Hazardous
- Non-hazardous

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What tools, material and personal protective equipment should be used.
2. The various types of growing media used in the enterprise and how to prepare them.
3. How the structures and surfaces in a nursery should be maintained.
4. What activities are required to maintain plant health.
5. How to organize work activities and why this is important.
6. How to calculate length, area, volume and proportion.
7. How to handle and store planting material.
8. What information needs to be recorded and how to maintain accurate records.
9. How to dispose of waste.
10. How to record costs and why it is important.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge on **one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA03901

Establish and maintain a crop

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to establish and maintain a crop. The crop may be vegetables, pulse or root crops, ornamental plants or turf grass. Candidates will be required to prepare the growing medium for planting, plant the crop using seeds, seedlings, cuttings or plugs and to engage in all the activities necessary to maintain the crop to the point of sale. Assisting with managing the operation, recording and costing inputs are critical components of this unit.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | | | |
|----|--------------------|-----|---|
| 1. | Establish the crop | 1.1 | Select and correctly use the necessary tools, materials and any personal protective equipment for the job. |
| | | 1.2 | Use the tools, materials and personal protective equipment safely and correctly according to workplace requirements and manufacturer's recommendations. |
| | | 1.3 | Prepare the growing medium as instructed by the appropriate persons . |
| | | 1.4 | Prepare the planting material and report any problems as instructed. |
| | | 1.5 | Position the planting material in the growing medium as instructed by the appropriate persons . |
| | | 1.6 | Maintain the safety and health of yourself and others at all times. |
| | | 1.7 | Maintain tools and equipment in a clean and serviceable condition according to workplace requirements. |
| | | 1.8 | Store tools, materials and equipment correctly after use according to manufacturers' specifications and workplace requirements. |

- 1.9 Organise and carry out all activities as instructed by the **appropriate persons** in accordance with workplace procedures.
2. Maintain the crop
 - 2.1 Use appropriate methods to control **unwanted vegetation**.
 - 2.2 **Maintain** plant health as instructed and according to specifications of plant.
 - 2.3 Check the condition of the plants and report any problems to the **appropriate persons** as instructed.
 - 2.4 Dispose of **waste** safely and correctly according to workplace and environmental requirements.

Maintain accurate records of all inputs used in crop establishment.
 - 2.6 Prepare a costing detailing all costs required to bring the crop to the point of sale

RANGE STATEMENT

All range statements must be assessed:

1. Growing medium:

- Artificial
- Natural

2. Appropriate persons:

- Supervisor
- Manager
- Team leader

3. Planting material:

- Seeds
- Cuttings
- Divisions

4. Prepare:

- Trimming
- Washing
- Dipping or dusting

5. Position:

- Spacing
- Depth
- Orientation

6. Unwanted vegetation:

- Excessive growth
- Competing vegetation

7. Maintain:

- Mulching
- Fertilising
- Watering
- Observing and controlling problems

8. Waste:

- Organic
- Inorganic

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What planting material is used to propagate the various crops used in the enterprise.
2. How to prepare the planting medium for the job.
3. What are the different crop planting requirements.
4. What are the requirements for successful germination of seeds.
5. How seedlings/plugs should be transplanted.
6. What are the spatial requirements for the various crops.
7. What pests and diseases affect the various crops.
8. What types of crop protection can be used.
9. What conditions are necessary for successful crop establishment.
10. How to organise work activities and why this is important.
11. What are the types of tools, materials and personal protective equipment required for the job.
12. How to use and store tools, materials and personal protective equipment correctly.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge on **more than one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)
- Professional discussion

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

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UA04001

Prepare and market a product

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to prepare and sell a product. The product may comprise any agricultural product or by-product. Preparation of the product may include cooking, cleaning, sorting, grading, storing, packaging, labelling and pricing. Candidates will be required to demonstrate an understanding of the various stages by which a product becomes available for sale. They will need to record and cost all the stages, allocate a cost to the product, engage in selling activity over a period of time, and produce a profit/loss account at the end of the period.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | | |
|------------------------|-----|--|
| 1. Prepare the product | 1.1 | Select and correctly use the appropriate tools, materials and personal protective equipment in accordance with workplace requirements. |
| | 1.2 | Prepare in accordance with workplace requirements. |
| | 1.3 | Dispose of waste safely and correctly in accordance with workplace and industry requirements. |
| | 1.4 | Maintain records of all inputs used in the product preparation in accordance with workplace procedures. |
| | 1.5 | Record costs for all inputs used in the preparation of the product. |
| | 1.6 | Maintain the product under suitable conditions at all times according to specifications. |
| 2. Market the product | 2.1 | Allocate a cost for each unit of the product. |
| | 2.2 | Determine the target market and an appropriate marketing strategy. |

- 2.3 Communicate information on marketing plans to all **relevant persons**.
- 2.4 Confirm that the marketing plan fits with the business plan.
- 2.5 Determine and record costs for all inputs used in the marketing of the product.
- 2.6 Prepare a profit/loss statement at the end of the marketing period.

RANGE STATEMENT

All range statements must be assessed:

1. Prepare:

- Cleaning
- Sorting
- Grading
- Cooking
- Preservation
- Packaging
- Labelling
- Pricing
- Storing

2. Waste:

- Organic
- Inorganic

3. Target market:

- Local
- Regional

4. Relevant persons:

- Team members
- Technical specialists
- Manager, supervisor, etc.

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What personal protective equipment is required and how to use it.
2. How to prepare a product for marketing.
3. How to deal with waste generated during product preparation.
4. What records need to be maintained and how to do so.
5. Why costs are important and how to record them.
6. How to research markets and evaluate market trends.
7. What markets exist, what their characteristics are, and how they can be accessed.
8. Where specialist advice can be obtained and how to choose an appropriate advisor.
9. How to develop a marketing strategy.
10. How to cost inputs and why this is important.
11. How to do profit/loss statements.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence of competence may be obtained through a variety of methods including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)
- Professional discussion

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

U92502

Maintain safe and effective working practices

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to function within health and safety standards. Candidates are required to demonstrate that they are able to work effectively and efficiently with colleagues, supervisors and customers. It also highlights the need for individuals to take responsibility for self-development in the workplace.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | | | |
|----|---|-----|---|
| 1. | Maintain the safety of self and others in the workplace | 1.1 | Work according to training and instructions received to avoid risk to self and others. |
| | | 1.2 | Wear the appropriate personal protective equipment according to organisational procedures. |
| | | 1.3 | Use approved methods and handling equipment when moving and lifting items. |
| | | 1.4 | Use appropriate equipment and materials safely and correctly according to organisational requirements and manufacturer's instructions. |
| | | 1.5 | Return equipment and materials to designated storage when not in use. |
| | | 1.6 | Keep the immediate work area tidy and free from hazards. |
| | | 1.7 | Dispose of waste safely and correctly in a designated area, in accordance with organisational procedures and environmental and industry regulations. |
| | | 1.8 | Perform work in a manner which minimises environmental damage and contributes to the improvement of environmental work practices. |

- 1.9 Report accidents, incidents or problems to appropriate persons promptly and take immediate action to reduce further danger.
- 1.10 Carry out work in an organized and efficient manner in accordance with specified procedures.
- 2. Maintain effective working relationships with others
 - 2.1 Maintain appropriate and effective working relationships with **others**.
 - 2.2 Carry out activities requiring cooperation with **others** in accordance with required procedures.
 - 2.3 Handle disagreements effectively and in accordance with organisational procedures.
 - 2.4 Communicate clearly and in a manner which promotes effective working relationships.
- 3. Maintain and develop personal performance
 - 3.1 Take responsibility for tasks and activities in accordance with organisational requirements, either alone as part of a team.
 - 3.2 Seek advice from the appropriate person concerning specific tasks if clarification is required.
 - 3.3 Review **personal performance and development** with the appropriate person at suitable times.

RANGE STATEMENT

All range statements must be assessed:

1. Personal protective equipment:

- Ear protection
- Gloves
- Footwear
- Overalls/coveralls
- Helmets/hats
- Eye protection

2. Equipment:

- Manual
- Electronic

3. Waste:

- Solid
- Liquids
- Hazardous/toxic

4. Others:

- Colleagues
- Supervisors
- Customers

5. Personal performance and development:

- Productivity
- Quality of work

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. How to carry out work activities avoiding risk to self and others.
2. What are the basic requirements of the health and safety and other legislation and regulations that apply to the workplace.
3. What are the organisational requirements for the use of personal protective equipment.
4. How to select and use the correct personal protective equipment.
5. What is the relevant, up-to-date information on health, safety and security and how it applies in the workplace.
6. Why it is important to be alert to health, safety and security hazards.
7. What are the common health, safety and security hazards that affect persons working in this role and how these should be identified.
8. Why it is important to warn others about hazards and how to do so until the hazard is handled.
8. Why it is important to use safe lifting techniques.
9. What are the correct and safe ways to use equipment and materials required for the work.
10. What are safe methods and areas for the storage of equipment and materials.
11. What are the organisational and legislative requirements for disposing of waste safely.
12. What health and safety records may need to be kept and how to do so.
13. How the conditions under which you work can affect the efficiency and effectiveness of yourself and those around you.
14. What methods should be used to promote good environmental practice and to minimise environmental damage while working.
15. What procedures should be used for different types of emergencies in the industry.
16. Why it is important to develop and maintain effective working relationships and how to do so.
17. What procedures should be used in dealing with workplace disagreements.
18. Why it is important to communicate effectively and what are the available methods to do so.
19. How to maintain security in the work area.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge on **more than one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)
- Professional discussion

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation may be used to cover **PCs 1.9 and 2.3**.

UA04101

Contribute to managing a livestock rearing operation

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to raise farm animals. The animals may include poultry, rabbits, sheep, goats, pigs or cows. Candidates will be expected to engage in all the rearing activities over a period of time, and maintain records of the inputs used.

The requirements for this unit could be covered by a period of internship during which the candidate would be expected to assist in managing the operation, and collect and compile the relevant data.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | | | |
|----|-----------------------------|-----|--|
| 1. | Feed and water farm animals | 1.1 | Select and use the appropriate tools, materials and personal protective equipment in accordance with workplace procedures. |
| | | 1.2 | Measure out the amounts of feed and water for the animals as directed by the appropriate persons . |
| | | 1.3 | Sanitise feeding and drinking utensils before and after use in accordance with workplace policy and industry requirements. |
| | | 1.4 | Feed the animals as instructed by the appropriate persons and determine whether all are feeding. |
| | | 1.5 | Report any problems to the appropriate persons as required by workplace procedures. |
| | | 1.6 | Remove stale feed and contaminated water in accordance with workplace procedures. |
| | | 1.7 | Return feed to the designated storage area. |

2. Record relevant data
 - 2.1 Record the date, time and quantity of food used for each feeding as required by workplace procedures.
 - 2.2 Record the use of all **other inputs** used in rearing the livestock.
 - 2.3 Dispose of all **waste** in accordance with workplace, industry and environmental requirements.

RANGE STATEMENT

All range statements must be assessed:

1. Appropriate persons:

- Manager
- Supervisor
- Team leader

2. Other inputs:

- Additives
- Antibiotics
- Minerals/vitamins

3. Waste:

- Organic
- Inorganic

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What tools, materials and personal protective equipment are required and how to use them.
2. What types of feed can be given to various livestock.
3. How feed and water should be measured.
4. How and when livestock should be fed.
5. How and to whom problems encountered should be reported.
6. What breeds of animal can be used for what purpose.
7. What types of housing are used for various livestock.
8. How to sanitise feeding and watering utensils and why this is important.
9. Why it is important to check feed and water for contamination.
10. How and why feed should be appropriately stored.
11. How to maintain records and why this is important.
12. How to dispose of waste.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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- Written evidence (work records, reports)

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA04201

Contribute to the implementation of a pest control programme

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to assist in the implementation of a pest control programme on crops, poultry, small ruminant or livestock farms, or in plant nurseries. Candidates will be required to identify pests/diseases, assist in the preparation of a control programme, carry out all necessary treatments, monitor and record the programme details and costs.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | |
|--|--|
| 1. Determine the presence of pests | 1.1 Demonstrate that your working methods promote health and safety and are consistent with industry working practices. |
| | 1.2 Demonstrate evidence of the presence of pests and seek advice from the appropriate persons to correctly identify the pest. |
| | 1.3 Report the presence of the pest or pests and the extent of any damage to the appropriate persons . |
| 2. Assist in implementing a pest control programme | 2.1 Seek advice from the appropriate persons as required. |
| | 2.2 Determine appropriate control methods and identify necessary treatments in accordance with workplace procedures. |
| | 2.3 Select, correctly use and maintain the necessary personal protective equipment according to workplace procedures. |
| | 2.4 Select, use and maintain the appropriate tools and equipment for control applications. |

- 2.5 Apply control measures as instructed and in accordance with relevant health and safety practices.
- 3. Monitor the programme
 - 3.1 Perform work in a manner which minimises environmental damage.
 - 3.2 Monitor the control programme and make appropriate changes as instructed by the **appropriate persons**.
 - 3.3 Maintain detailed records of all activities carried out during the programme.
 - 3.4 Monitor costs and prepare a final costing at the end of the programme.
 - 3.5 Dispose of all waste safely and correctly according to workplace, industry and environmental requirements.

RANGE STATEMENT

All range statements must be assessed:

1. Pests:

- Insects
- Rodents
- Slugs/snails
- Disease agent

2. Appropriate persons:

- Manager
- Supervisor
- Team leader

3. Treatments:

- Pesticides and biocides
- Cultural control methods

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. Who to report the presence of pests and diseases.
2. Why and when the crop needs to be monitored.
3. How to handle, use and store pesticides, tools and equipment.
4. What are biocides and how these can be used in pest control.
5. What personal protective equipment is appropriate for use.
6. How work can be performed to minimise environmental damage.
7. How to monitor the control programme.
8. How to maintain records.
9. What are the workplace, industry and environmental requirements for the disposal of waste.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge on **one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

UA04301

Organise work activities

Unit Descriptor:

This unit describes the knowledge, skills and attitudes required to carry out work efficiently. Candidates will be required to carry out a plan which details daily, weekly or monthly work. They should be able to prioritize and schedule work activities, monitor work plans, and assist in reviewing and amending as necessary. They should also maintain appropriate records, and take account of the amount of time spent and resources used in carrying out the various activities.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | |
|-----------------------------|---|
| 1. Organise work activities | <ul style="list-style-type: none"> 1.1 Schedule work activities in accordance with workplace procedures. 1.2 Contribute to the allocation of time and resources for the completion of each task. 1.3 Prioritise work activities to efficiently complete daily tasks. 1.4 Seek assistance from appropriate persons in organising and scheduling activities. |
| 2. Monitor work efficiency | <ul style="list-style-type: none"> 2.1 Create a work log detailing all the activities carried out according to workplace procedures. 2.2 Review the workplace in consultation with appropriate persons and make adjustments as necessary. 2.3 Report any problems encountered to the appropriate persons according to workplace procedures. |
| 3. Maintain records | <ul style="list-style-type: none"> 3.1 Maintain a record of all tasks and the time and resources used in completing them in accordance with workplace requirements. 3.2 Maintain records in a safe and secure location in accordance with workplace requirements. |

RANGE STATEMENT

All range statements must be assessed:

1. Resources:

- Physical
- Human

2. Appropriate persons:

- Managers
- Supervisors
- Colleagues

3. Workplace requirements:

- Occupational health and safety
- Relevant rules and regulations

4. Problems:

- Absenteeism
- Equipment malfunction
- Bad weather

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What are the products and processes used in the workplace.
2. What are verbal and non-verbal communication skills and how to use them.
3. How to interpret work schedules.
4. How to respond to problems as they arise.
5. What writing skills are required.
6. How to prioritise work.
7. Who are the appropriate persons with whom you must communicate.
8. What are the organisational requirements for planning and scheduling work.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** of the elements, meeting **all** of the performance criteria, range and underpinning knowledge on **more than one occasion**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Observation
- Written/oral questioning
- Witness testimony
- Written evidence (work records, reports)

Supplementary evidence may be used for **PC 2.3** if no evidence can be provided by direct observation.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used**, except in exceptional circumstances where natural work evidence is unlikely to occur.

U73603

Deliver reliable customer service

Unit Descriptor:

This unit deals with the knowledge, skills and attitudes required to deliver consistent and reliable service to customers. It looks at how to work with the organization's service systems to meet or exceed customer expectations. It also examines how to deal with different types of customers in different circumstances and monitor that customer expectations have been met.

ELEMENT**PERFORMANCE CRITERIA**

To be competent you must achieve the following:

- | | |
|---|---|
| 1. Give consistent service to customers | 1.1 Make realistic commitments to customers regarding service delivery . |
| | 1.2 Keep commitments to customers according to organisational standards. |
| | 1.3 Inform customers promptly and provide reasons when commitments cannot be kept. |
| | 1.4 Identify and acknowledge changes in customer needs or expectations and promptly adapt the service to meet these new requirements. |
| | 1.5 Refer customers to appropriate persons or organisations if unable to deal with their needs and expectations and keep them informed of what is happening. |
| 2. Check customer service delivery | 2.1 Check service delivery comprehensively to ensure it meets customer needs and expectations. |
| | 2.2 Identify opportunities to deliver better service or improve service delivery . |
| | 2.3 Share relevant information regularly with customers to maintain the organisation's standards of service delivery |

RANGE STATEMENT

All range statements must be assessed:

1. Customers:

- Internal
- External

2. Service delivery:

- Procurement
- Logistics
- Transport
- Operations

UNDERPINNING KNOWLEDGE AND SKILLS

You need to know and understand:

1. What is commitment and why it is important to keep it.
2. Why it is important to inform customers of commitments that cannot be kept and how and when to do so.
3. What are the organisational services or products.
4. What are the organisational procedures and systems for delivering customer service.
5. How to recognise changes in customer needs and expectations.
6. How to adapt customer service to changing customer needs.
7. How, when and why it is important to refer customers for resolution to a customer service issue.
8. What is service delivery and how to check it to make sure it meets customer needs and expectations.
9. How to identify opportunities to provide improved customer service.
10. What is feedback and how to obtain it.
11. What are the types of information that should be shared with customers.
12. What are the organisational standards for service delivery.
13. What is conflict resolution and how to employ it.
14. What are the methods and systems for measuring an organisation's effectiveness in delivering customer service.
15. Why it is important to keep customers up-to-date on changes.
16. What are the organisational procedures and systems for checking service delivery.
17. What are the organisational requirements for health and safety in own area of work.
18. What is rapport and how to develop it with customers.
19. What are positive and negative body language and facial expressions.
20. How and why people are different.
21. What are the contractual agreements customers share with the organisation.
22. What are the products or services of your organisation relevant to the service delivery role.
23. What are the various communication methods and procedures and how to use them.
24. How to deal with persons with diverse backgrounds and abilities.

25. What are the organisational standards and procedures.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

Candidates must prove that they can carry out **all** the elements, meeting **all** the performance criteria, range and underpinning knowledge **over a three month period**. This evidence must come from a real working environment.

(2) Methods of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic.

Evidence may be collected in a variety of ways including:

- Products of work
- Observation
- Written/oral questioning
- Written evidence
- Witness testimony
- Professional discussion

Questioning techniques should not require language, literacy or numeracy skills beyond those required in this unit of competency.

(3) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by a candidate working alone or as part of a team. The assessment environment should not disadvantage the candidate.

The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Simulation **should not be used** except in exceptional circumstances where natural work evidence is unlikely to occur.

Assessment Methods

The methods which can be used to determine competence in performance and underpinning knowledge.

Assessors

The assessor's role is to determine whether evidence presented by a candidate for assessment within the programme meets the required standard of competence in the relevant unit or element. The assessor needs to be competent to assess to national standards in the area under assessment.

Approved Centre

Organization/centre approved by the TVET Council to offer full National Vocational Qualifications (NVQs).

Case Studies

In situations where it is difficult for workplace assessment to take place, case studies can offer the candidate an opportunity to demonstrate potential competence.

A case study is a description of an actual or imaginary situation presented in some detail. The way the case study is presented will vary depending upon the qualification, but the most usual methods are written, taped or filmed.

The main advantage of a case study is the amount of evidence of underpinning knowledge it can generate and the specific nature of the evidence produced.

Competence

In the context of vocational qualifications, competence means the ability to carry out prescribed activities to nationally predetermined standards in an occupation. The definition embraces cognitive, practical and behavioural skills, underpinning knowledge and understanding and the ability to react appropriately in contingency situations.

Element

An element is a description of an action, behaviour or outcome which a person should be able to demonstrate.

Level 1 – Entry Level

Recognises competence in a range of varied work activities performed in a variety of contexts. Most work activities are simple and routine. Collaboration with others through work groups or teams may often be a requirement. Substantial supervision is required especially during the early months evolving into more autonomy with time.

Level 2 – Skilled Occupations

Recognises competence in a broad range of diverse work activities performed in a variety of contexts. Some of these may be complex and non-routine and involve some responsibility and autonomy. Collaboration with others through work groups or teams and the guidance of others may be required.

Level 3 – Technician and Supervisory Occupations

Recognises competence in a broad range of complex, technical or professional work activities performed in a wide variety of contexts, with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources are often a requirement. The individual is capable of self-directed application, exhibits problem solving, planning, designing and supervisory capabilities.

Level 4 – Technical Specialist and Middle Management Occupations

Recognises competence involving the application of a range of fundamental principles and complex techniques across a wide and unpredictable variety of contexts. Requires very substantial personal autonomy and often significant responsibility for the work of others, the allocation of resources, as well as personal accountability for analysis, diagnosis, design, planning, execution and evaluation.

Level 5 – Chartered, Professional and Senior Management Occupations

Recognises the ability to exercise personal professional responsibility for the design, development or improvement of a product, process, system or service. Recognizes technical and management competencies at the highest level and includes those who have occupied positions of the highest responsibility and made outstanding contributions to the promotion and practice of their occupation.

External Verifier

The External Verifier is trained and appointed by the TVET Council and is competent to approve and ensure an approved Centre's quality of provision.

Internal Verifier

The Internal Verifier acts in a supporting role for Assessors to ensure the consistent quality of assessment and competence. They need to be competent to assess to national standards in the area under assessment.

NVQ

National Vocational Qualifications (NVQs) are work-based qualifications that assess an individual's competence in a work situation and certify that the individual can perform the work role to the standards expected in employment.

NVQs are based on national occupational standards of competence drawn up by standards-setting bodies known as Industry Lead Bodies. The standards describe the level and breadth of performance that is expected of persons working in the industry or sector which the NVQ covers.

NVQ Coordinator

This is a contact person within each approved Centre offering NVQs who has overall responsibility for the operation and administration of the NVQ system.

Observation

Observation of the candidate carrying out his/her job in the workplace is the assessment method recommended in the vast majority of units and elements. Observation of staff carrying out their duties is something that most supervisors and managers do every day.

Performance Criteria

Performance criteria indicate the requirements for the successful achievement of an element. They are descriptions of what the Assessor would expect to see in competent performance.

Product of Work

This could be items produced during the normal course of work, which can be used for evidence purposes such as reports, menus, promotional literature, training plans, etc.

Questioning

Questioning is one of the most appropriate ways to collect evidence to assess a candidate's underpinning knowledge and understanding.

Questioning can also be used to assess a candidate in those areas of work listed in the range which cannot be assessed by observation. Guidance on when this assessment method can be used is given in the assessment guidance of each individual element.

As an assessment method, questioning ensures that the Assessor has all of the evidence about a candidate's performance. It also allows the Assessor to clarify situations.

Range Statements

The range puts the element of competence into context. A range statement describes the range of situations to which an element and its performance criteria should be applied. Range statements are prescriptive; therefore, each category must be assessed.

Role Plays

Role plays are simulations where the candidate is asked to act out a situation in the way he/she considers 'real' people would behave. By using role-play situations to assess a candidate, Assessors are able to collect evidence and make a judgment about how the candidate is most likely to perform. This may be necessary if the range specified includes a situation in which the candidate is unlikely to find himself/herself in the normal course of his/her work, or where the candidate needs to develop competence, before being judged competent, for example, in a disciplinary situation.

Simulations

Where possible, assessment should always be carried out by observing **natural performance** in the workplace. **Simulated performance**, however, can be used where specified to collect evidence about an aspect of the candidate's work which occurs infrequently or is potentially hazardous; for example, dealing with fires.

By designing the simulated situation, briefing the candidate and observing his/her performance, the Assessor will be able to elicit evidence which will help him/her judge how a candidate is **most likely** to perform in real life.

Supplementary Evidence

Supplementary evidence can be used to confirm and support performance evidence. Types of supplementary evidence include witness testimonies, reports, journals or diaries, records of activities, personal statements, simulation (see note in glossary).

Underpinning Knowledge

Underpinning knowledge indicates what knowledge is **essential** for a candidate to possess in order to successfully achieve an element and prove total competence.

Units

A unit of competence describes one or more than one activity which forms a significant part of a candidate's work. Units are accredited separately but, in combination, can make up a vocational qualification. There are three categories of units:

Mandatory Units: These are core to a qualification and must be completed.

Optional Units: Candidates must choose the required number of individual units, specified in the qualification structure, to achieve the qualification.

Work-based Projects

Work-based projects are a useful way for the Assessor to collect evidence to support any decision made about a candidate's performance. They are particularly appropriate in determining the level of a candidate's underpinning knowledge and understanding where it may be insufficient to rely only on questioning or observation.

A project often involves the identification of a solution to a specific problem identified by the Assessor and/or the candidate (such as looking at ways to redress a recent drop in sales) or may be a structured programme of work built around a central situation or idea (such as the introduction of a new job rostering process).