# Competency Standards for Caribbean Vocational Qualifications (CVQ)

CCAGAFPE1212   CVQ Level 2 in Agricultural Entrepreneurship – Agro-Food Processing

Unit Number	Unit Title	Requirement
U92402	Create a business development plan	Mandatory
U92502	Maintain safe and effective working practices	Mandatory
U73603	Deliver reliable customer service	Mandatory
U93302	Plan and monitor the operation and performance of an enterprise	Mandatory
U93402	Plan to improve sales and marketing	Mandatory
U93502	Evaluate the effectiveness of sales and marketing	Mandatory
U93602	Manage business finances	Mandatory
U92602	Sell products and services	Mandatory
UA04402	Develop a personal entrepreneurial strategy	Mandatory
U88002	Follow hygiene and product safety procedures	Mandatory
U88102	Follow receiving, handling and storage procedures	Mandatory
U88202	Perform processing procedures	Mandatory
U88302	Perform packaging procedures	Mandatory
U88402	Monitor a quality management system	Mandatory
U88702	Analyse data using mathematical principles	Mandatory
U88802	Perform drying and dehydration processes	Mandatory
U89202	Perform fermentation operations	Mandatory
U89702	Perform pasteurisation	Mandatory

To obtain a Caribbean Vocational Qualification (CVQ) all Mandatory Units must be achieved.

Legend to Unit Code

AG AFP E 121 2

Industry
Sector
Sub-sector
National Qualification Level
Version Control
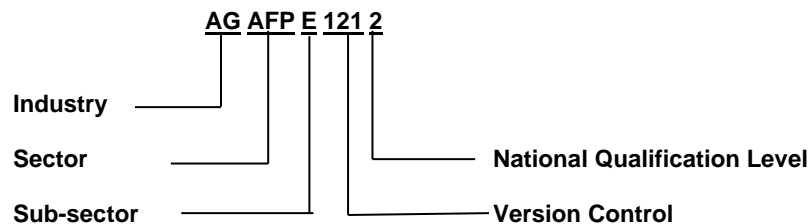
Key: **AG – Agriculture; AFP – Agro-Food Processing; E – Entrepreneurship;**

ACKNOWLEDGEMENTS

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National Occupational Standards (UK)

Members of the Working Group

Ms. Sonia Blackman-Francis -   Extension Officer, Ministry of Agriculture

Ms. Celeste Foster   -   CEO, Barbados Entrepreneurship Foundation

Dr. Richard Graham   -   Consultant, Facilitator

Mr. John Hunte   -   Secretary, Organic Growers and Consumers Association

Mr. Kareem Payne   -   Project Manager, Youth Agri-entrepreneurship Incubator Programme Entrepreneurial Scientist

Country of Origin
Barbados

Qualification Overview

Who is the qualification for?

The qualification is aimed at training providers, farm operators and potential agricultural entrepreneurs. At this level, operators must understand the required skills and knowledge to successfully operate an enterprise and allow them to recognise and develop business opportunities as they arise. For young agriculturalists seeking to carve out a career, the qualification offers an insight into the possibilities that exist for engaging in entrepreneurial activity.

Where can it be used

The qualification is designed to support farming entrepreneurs in developing skills, planning their careers and/or in the development of sustainable businesses.

Jobs within the occupational areas and the respective cluster of units

- Farm operators
- Agriculturist
- Farming entrepreneurs

Occupational Standards can also be used to:

- Prepare job descriptions and specifications
- Determine recruitment criteria
- Appraise staff performance objectively
- Identify skill and training gaps and needs
- Conduct labour market analyses
- Develop curriculum
- Assess the effectiveness of training programmes
- Determine compensation and rewards

The benefits of acquiring the CVQ to candidates

- Provide a basis for articulation and accreditation
- Provides a broad-based preparation for employment
- Is an alternative route to further/higher education
- Complements and has parallel standing with academic qualifications
- Provides enhanced employability and higher earning potential
- Facilitates an apprenticeship with actual work experience
- Equips candidates with the knowledge, skills and attitudes for the workplace
- Past work experience and skills can count towards achieving the CVQ
- Allows for continuity whereby if a candidate cannot complete the CVQ at a centre or school, they can continue at another approved centre
- CVQ's are recognised qualifications and facilitates free movement of labour throughout CARICOM

The benefits of the CVQ to employers

- Provides a larger cadre of skilled employees/candidates to choose from
- Reduces cost of recruiting and selecting the ideal job candidate
- Reduces cost for training workers
- Ensures higher levels of productivity

The benefits of the CVQ to the Caribbean region:

- Produces a higher skilled workforce that is ready to adapt to ever-changing global demands
- Provides greater access for persons to achieve higher qualifications
- Contributes to the region's human resource capacity development

U92402   **Create a business development plan**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to develop a business plan. Candidates are required to identify realistic objectives and potential growth areas. They will need to develop a plan which details how resources will be deployed to create a business that will be sustainable.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1. Create a business plan	1.1	Determine the overall key business objectives.
	1.2	Identify the strengths and weaknesses in the business activities.
	1.3	Determine short, medium and long term business objectives.
	1.4	Identify different ways in which the business objectives may be achieved.
	1.5	Select the most appropriate business model and outline activities to meet business objectives.
2. Monitor and evaluate the business plan	2.1	Monitor performance and compare with the business development plan.
	2.2	Evaluate the business planning process and make improvements where necessary.
	2.3	Update the business plan in line with any changes.

RANGE STATEMENT

All range statements must be assessed:

1. **Business objectives** may include but not
   limited to:

   - Products and services
   - Costs/revenue
   - Processes
   - Quality
   - Sustainability
   - Return on investment

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1.   Why a business plan is important.

2.   How to identify strengths and weaknesses in the activities of the business.

3.   How to set short, medium and long term business objectives.

4.   How to select the most appropriate business model and plan activities to meet the business objectives.

5.   What are the resources available for use.

6.   How to develop a contingency plan.

7.   How to apply the business plan to your work activities.

8.   How to monitor performance and compare it with the business plan targets.

9.   How to evaluate the business plan and update where necessary.

10.   How to carry out market research and analyse market research information.

11.   How to determine and monitor sustainability.

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
- 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**

Candidates must be able to:

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 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 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 and take immediate action to reduce further danger.
	1.10	Carry out work in an organised and efficient manner in accordance with specified procedures.
2. Maintain working relationships with others	2.1	Develop appropriate and effective working relationships with others in accordance with organisational requirements.
	2.2	Carry out activities requiring cooperation with others in accordance with required procedures.
	2.3	Handle disagreements and in accordance with organisational procedures.
	2.4	Communicate 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 if clarification is required concerning specific tasks.
	3.3	Review with appropriate persons, personal performance and development within agreed timelines.

RANGE STATEMENT

All range statements must be assessed:

1. **Personal protective equipment** may include but not limited to:

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

2. **Equipment** may include but not limited to:

   - Manual
   - Electronic

3. **Waste** may include but not limited to:

   - Solid
   - Liquids
   - Hazardous/toxic

4. **Others** may include but not limited to:

   - Colleagues
   - Supervisors
   - Customers

5. **Personal performance and development** may include but not limited to:

   - Productivity
   - Quality of work

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to carry out work activities while avoiding risk to self and others.

2. What are the basic requirements of the health and safety, 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 dealt with.

9. Why it is important to use safe lifting techniques.

10. What are the correct and safe ways to use equipment and materials required for the work.

11. What are safe methods and areas for the storage of equipment and materials.

12. What are the organisational and legislative requirements for disposing of waste.

13. What health and safety records may need to be kept and how to do so.

14. How the conditions under which you work can affect efficiency and effectiveness.

15. What methods should be used to promote good environmental practice and to minimise environmental damage while working.

16. What procedures should be used for different types of emergencies in the industry.

17. Why it is important to develop and maintain effective working relationships and how to do so.

18. What procedures should be used in dealing with workplace disagreements.

19. Why it is important to communicate effectively and what are the available methods to do so.

20. 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
- 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.**

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 organisation'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

Candidates must be able to:

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 and provide reasons when commitments cannot be kept.
		1.4	Identify and acknowledge changes in customer needs or expectations and 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	Monitor service delivery 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 with customers to maintain the organisation's standards of service delivery.

RANGE STATEMENT

All range statements must be assessed:

1. **Customers** may include but not limited to:

   - Internal
   - External

2. **Service delivery** may include but not limited to:

   - Procurement
   - Logistics
   - Transport
   - Operations

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should 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 the 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.

U93302 **Manage the operation and performance of an enterprise**

Unit Descriptor:

> This unit describes the knowledge, skills and attitudes required to manage an agricultural or horticultural enterprise. The enterprise should have clear business objectives/targets and the system of production must be planned to deliver these. Equally, operating procedures and protocols must be defined and clearly communicated. Enterprise management practices must be compliant with environmental standards, legislation and codes of practice. A team approach to completing this unit is suggested.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1. Plan and manage the operation	1.1	Define the objectives/targets of the enterprise and plan the production system.
	1.2	Produce physical and financial forecasts based on the targets.
	1.3	Produce and communicate the procedures and protocols to manage and monitor the performance of the enterprise to the team.
	1.4	Manage the enterprise production system to minimise the environmental impact comply with industry standards and codes of practice.
	1.5	Contribute to implementing systems to safeguard the health and hygiene of the produce at all times.
	1.6	Establish measures for the recycling or disposing of waste in accordance with legal and industry requirements.
	1.7	Use resources while working within existing legislative requirements.
2.1 Monitor the enterprise		Confirm that the plan produces products that meet and respond to changing customer/market requirements.

2.2   Confirm compliance with relevant quality assurance standards.

2.3   Evaluate the development of new technologies and their value and appropriateness to the enterprise.

2.4   Review and evaluate the performance of the enterprise to ensure targets and objectives are being met and make necessary changes.

2.5   Review the effectiveness of policies and protocols and make necessary change

2.6   Confirm that appropriate records are maintained.

2.7   Confirm that working methods promote health and safety and are consistent with relevant legislation and codes of practice.

RANGE STATEMENT

All range statements must be assessed:

1. **Production system** may include but not limited to:

   - Conventional
   - Organic
   - Hydroponic
   - Aquaponics
   - Technology development

2. **Resources** may include but not limited to:

   - Equipment
   - Nutrients
   - Waste
   - People

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to define the objectives and targets of an enterprise.

2. How to plan and manage the production system.

3. How to produce physical and financial forecasts based on targets.

4. How to produce and communicate procedures and protocols to the team to manage the performance of the enterprise.

5. How to plan and manage the production system to minimise environmental impact and comply with industry standards and codes of practice.

6. How to plan and implement systems to safeguard the health and hygiene of the produce.

7. What are the legal and industry requirements for recycling or disposing of waste.

8. How to establish measures for recycling and disposing of waste.

9. What are the legislative requirements for planning and managing the use of resources.

10. What are the changing customer/market requirements.

11. How to ensure that the plan produces products that meet and respond to changing customer/market requirements.

12. What are the relevant quality assurance standards.

13. How to monitor compliance with relevant quality assurance standards.

14. How to evaluate the development of new technologies and their value and appropriateness to the enterprise.

15. How to evaluate the performance of the enterprise to ensure targets and objectives are being met.

16. What changes need to be made following the evaluation of the performance of the enterprise.

17. How to review the effectiveness of policies and protocols and make changes where necessary.

18. Why it is important to maintain appropriate records.

19. Why it is important to ensure that working methods promote health and safety and comply with relevant legislation and codes of practice and how to do so.

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
- 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.

U93402	**Plan to improve sales and marketing**

Unit Descriptor:	This unit describes the knowledge, skills and attitudes required to plan to improve sales and marketing for food products. Candidates will be required to gather information to determine trends in the sales of products or services and identify opportunities for the development of sales and marketing objectives. They will also need to develop a plan which includes setting objectives, timelines and determine the cost of a sales and marketing campaign.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1. Gather information	1.1	Collate and evaluate information on sales figures and sales and marketing trends relating to products or services.
	1.2	Use the information to determine the market and customers for products or services.
	1.3	Determine whether there are opportunities in the market for new products or services now or in the future.
	1.4	Research and collate information on competitors' products and services and the impact on the business.
	1.5	Review collated information to ensure that conclusions support the strategy, objectives and development plans of the business.
	1.6	Communicate information to relevant persons.
2. Plan marketing	2.1	Establish what is to be achieved by marketing and match this to the strategy, objectives and development plans of the business.
	2.2	Evaluate the success of any previous marketing efforts and use this information to build a marketing plan

		2.3	Determine a reasonable time to achieve marketing objectives.
		2.4	Prepare a detailed budget for marketing.
		2.5	Produce a marketing plan based on the objectives of the business.
		2.6	Communicate the marketing plan to relevant persons.
3.	Prepare sales targets	3.1	Confirm that sales targets match the strategy, policy and objectives of the business.
		3.2	Determine a reasonable time to achieve sales targets.
		3.3	Confirm the available sales tools and techniques for the business.
		3.4	Prepare a detailed budget for sales and examine the likely effect on the business of achieving or not achieving the sales targets.
		3.5	Produce a comprehensive sales plan.
		3.6	Communicate the sales plan to relevant persons.

RANGE STATEMENT

All range statements must be assessed:

1. **Market** may include but not limited to:

   - Local
   - Regional
   - International

2. **Research** may include but not limited to:
   - Published reports and statistics
   - Internet
   - Marketing specialists
   - Sales specialists
   - Marketing and sales journals

3. **Relevant persons** may include but not limited to:

   - Team members
   - Technical specialists

4. **Sales tools and techniques** may include but not limited to:

   - Direct marketing
   - Print media advertising
   - Electronic media advertising
   - Social media

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to collate and evaluate information on sales figures and sales and marketing trends relating to products or services.

2. How to use collated and evaluated information to determine the market and customers for products or services.

3. How to ensure the right products are targeted at the right customers.

4. How to determine whether there are opportunities in the market for new products or services now or in the future.

5. What are the characteristics and specific requirements of various markets.

6. Why it is important to research and collate information on competitor's products and services and its impact on the business.

7. How to conduct market and sales research and collate and analyse information on competitor's products and services and determine its impact on the business.

8. Why it is important to review collated information to ensure that conclusions support the strategy, objectives and development plans of the business.

9. How to communicate information to relevant persons.

10. How to decide what is to be achieved by marketing and how to match this to the strategy, objectives and development plans of the business.

11. Why it is important to evaluate the success of previous marketing efforts and how to use this information to build a marketing plan.

12. What is a reasonable time to achieve marketing objectives and sales targets.

13. How to prepare a detailed budget for marketing and sales.

14. What are marketing and sales plans and how to produce comprehensive plans.

15. Why it is important to communicate the marketing and sales plans to relevant persons.

16. Why it is important that sales targets match the strategy, policy and objectives of the business.

17. What are the available sales tools and techniques for the business.

18. How to examine the likely effect on the business of achieving or not achieving sales targets.

19. How to produce a comprehensive sales plan

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
- 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.

U93502	**Evaluate the effectiveness of sales and marketing**

Unit Descriptor:

> This unit describes the knowledge, skills and attitudes required to establish, apply and monitor measures, which can be used to evaluate the effectiveness of marketing activities for the enterprise and its products or services. This unit is for those involved in marketing or selling activities, for example, managers or proprietors of small or medium-sized businesses.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1.	Monitor sales and marketing performance	1.1	Identify marketing and sales targets and performance indicators in accordance with the business plan.
		1.2	Evaluate the outcomes of marketing and sales activities against agreed targets and indicators.
		1.3	Support team members in identifying and addressing obstacles to achieving marketing and sales targets.
		1.4	Identify areas of underperformance and undertake actions to address these.
2.	Evaluate sales and marketing performance	2.1	Commend individuals and teams for the successful completion of marketing and sales activities and the achievement of targets.
		2.2	Indicate the contribution made to financial performance from key marketing and sales activities.
		2.3	Use indicators and outcomes to improve future marketing and sales activities.
		2.4	Use information obtained to make necessary adjustments to the business plan.

RANGE STATEMENT

All range statements must be assessed:

1. **Performance indicators** may include but not limited to:

   - Sales
   - Marketing
   - Team performance

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What is the business plan.

2. How to determine marketing and sales targets and performance indicators in accordance with the business plan.

3. Why it is important to monitor and evaluate the outcomes of marketing and sales activities against agreed targets and indicators and how to do so.

4. Why it is important to support team members in identifying and addressing obstacles to achieving marketing and sales targets.

5. How to identify areas of under-performance and what actions can be taken to address them.

6. Why it is important to acknowledge the successful completion of marketing and sales activities and the achievement of targets by individuals and teams.

7. How to indicate the contribution made to financial performance from key marketing and sales activities.

8. How to use indicators and outcomes to improve future marketing and sales activities.

9. How to use information obtained to make necessary adjustments to the business plan.

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
- 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.

| **U93602** | **Manage business finances** |

Unit Descriptor:

> This unit describes the knowledge, skills and attitudes required to manage the finances of a business. It is suitable for those who are business managers or owner managers of small or medium sized businesses. Candidates should know how to set up a basic accounting system, make forecasts, and prepare and monitor budgets.

| **ELEMENT** | **PERFORMANCE CRITERIA** |

Candidates must be able to:

1. Develop a business financial strategy	1.1	Set financial targets that match the aims of the business.
	1.2	Develop contingency plans according to organisational procedures.
	1.3	Estimate the financial state of the business to manage finances.
	1.4	Use appropriate sources of advice to plan the business finance and make investments.
	1.5	Determine the financial management systems to be used and ensure that all necessary accounting information will be provided.
2. Prepare financial forecasts	2.1	Determine what financial forecasts are required to help plan the business.
	2.2	Determine what information is required to prepare a forecast.
	2.3	Set targets for making investments.

RANGE STATEMENT

All range statements must be assessed:

1. **Sources of advice** may include but not limited to:

    - Financial/marketing/sales advisors
    - Books/journals/newspapers
    - Internet
    - Television
    - Other

2. **Forecasts** may include but not limited to:

    - Profit and loss
    - Cash flow
    - Sales

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the aims of the business.

2. How to set financial targets to match the aims of the business.

3. What financial targets are important to the business.

4. What are contingency plans and how to develop them.

5. How to estimate the financial state of the business.

6. What are appropriate sources of advice to plan the business finance and make investments.

7. Why it is important to determine the financial management systems to be used and how to do so.

8. How to ensure that all necessary accounting information will be provided from the financial management systems.

9. What are financial forecasts and how to determine which ones will help plan the business.

10. How to determine what information is required to prepare a forecast.

11. How to set targets for making investments.

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
- 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.

U92602   **Sell products and services**

Unit Descriptor:	This unit deals with the knowledge, skills and attitudes required to use sales techniques and encompasses the key selling skills from approaching the customer to closing the sale. It requires a basic level of product knowledge.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1.	Apply product knowledge	1.1	Update knowledge of products and services according to organisational requirements.
		1.2	Consult with experienced sales staff or product information guide to increase product knowledge.
2.	Approach customer	2.1	Identify, determine and apply timing of effective sales approach.
		2.2	Convey a positive impression to arouse customer interest.
		2.3	Identify and analyse trends and patterns of customer buying behavior.
		2.4	Focus customer on specific merchandise using appropriate communication skills.
3.	Gather information	3.1	Apply questioning techniques to determine customer buying motives.
		3.2	Identify customer requirements using effective listening skills.
		3.3	Interpret and clarify non-verbal communication cues.
4.	Sell benefits	4.1	Match customer needs to appropriate products and services.
		4.2	Communicate product features and benefits clearly to customers.

	4.3	Communicate product use and safety requirements to customers.
	4.4	Refer customers to appropriate product specialist as required.
	4.5	Answer routine customer questions accurately and honestly or refer to more experienced senior sales staff.
5. Overcome objections	5.1	Identify and accept customer objections in a courteous and respectful manner according to organisational procedures.
	5.2	Categorise objections into price, time and merchandise characteristics.
	5.3	Offer appropriate solutions according to organisational policy.
	5.4	Apply problem solving to overcome customer objections according to organisational policy.
6. Close sale	6.1	Monitor, identify and respond to customer buying signals according to organisational procedures.
	6.2	Use appropriate communication skills to encourage customers to make purchase decisions.
	6.3	Select and apply appropriate methods of closing sale according to organisational procedures.
7. Maximise sales opportunities	7.1	Identify and apply opportunities for making additional sales.
	7.2	Advise customers on complimentary products or services according to customer's identified need and organisational policies.
	7.3	Evaluate the success of any previous marketing efforts and use this information to build a marketing plan.

RANGE STATEMENT

All range statements must be assessed:

1. **Communication skills** may include but
   not limited to:

   - Body language
   - Active listening
   - Tone of voice
   - Questioning
   - Providing feedback

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the store policies and procedures with regards to:

    - selling products and services

    - allocated duties and responsibilities

2. What is the store merchandise and service range.

3. How to explain product knowledge for area/section.

4. What is the basic operational knowledge of relevant:

    - statutory requirements including consumer protection law

    - industry codes of practice

    - non-governmental consumer organisations

5. How to identify verbal and non-verbal communication cues.

6. How to apply questioning or listening skills.

7. How to handle difficult customers.

8. How to negotiate with customers.

9. How to identify and solve problems.

10. How to respond to sales performance appreciation.

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. 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
- Written evidence
- Witness testimony
- Professional discussion
- Research/project work

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.

UA04402   **Develop a personal entrepreneurial strategy**

Unit Descriptor:

> This unit deals with the knowledge, skills and attitudes required to craft an entrepreneurial strategy that fits with the attitudes, behaviours, management competencies and experience necessary for entrepreneurs to meet the requirements and demands of a specific opportunity.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1. Identify and assess entrepreneurial characteristics	1.1 Carry out relevant research and identify the required entrepreneurial characteristics.
	1.2 Present the findings of research conducted on entrepreneurial ventures and successes in the Caribbean region in the appropriate format.
	1.3 Evaluate and rank identified entrepreneurial characteristics.
	1.4 Identify factors that will help an entrepreneur to manage the risk and uncertainties of the future, while maintaining a future orientated frame of mind.
2. Develop a self-assessment profile	2.1 Use self-assessment tools/methods to properly identify personal entrepreneurial potential.
	2.2 Apply problem-solving techniques and principles to solve business related problems.
	2.3 Obtain appropriate feedback from others for the purpose of becoming aware of blind spots and for reinforcing or changing existing perceptions of strengths/weakness.

3.   Craft an entrepreneurial strategy

3.1   Develop a profile of the past that includes accomplishments and preferences in terms of life and work styles, coupled with a look into the future and an identification of what one would like to do.

3.2   Identify areas for development to determine commitment, determination and perseverance; orientation towards goals; taking initiative and accepting personal responsibility; recognising management competencies.

3.3   Develop written guidelines to obtain feedback that is solicited, honest, straightforward, and helpful but not all positive or negative to facilitate reviews.

3.4   Develop a framework and process of setting goals which demand time, self-discipline, commitment, dedication and practice.

3.5   Establish goals that are specific and concrete, measurable, relate to time and are realistic and attainable

3.6   Establish how priorities including identifying conflict and trade-offs and how these may be resolved.

3.7   Identify potential problems, obstacle and risks in meeting goals.

3.8   Identify specific action steps that are to be performed to accomplish goals.

3.9   Indicate the method by which results will be measured.

3.10   Establish milestones for reviewing progress and tying these to specific dates on a calendar.

3.11   Identify sources of help to obtain resources.

		Provide evidence of the ability to review progress and periodically revise goals to meet requirements.
	2.4	Identify factors that will help an entrepreneur to manage the risk and uncertainties of the future, while maintaining a future orientated frame of mind.
3. Develop self-assessment profile	3.1	Use self-assessment tools/methods to identify personal entrepreneurial potential.
	3.2	Demonstrate the ability to apply, problem-solving techniques and principles to solve business related problems.
	3.3	Obtain appropriate feedback from others for the purpose of becoming aware of blind spots and for reinforcing or changing existing perceptions of strengths/weakness.
4. Craft an entrepreneurial strategy	4.1	Develop a profile of the past that includes accomplishments and preferences in terms of life and work styles, coupled with a look into the future and an identification of what one would like to do.
	4.2	Identify areas for development to determine commitment, determination and perseverance; orientation towards goals; taking initiative and accepting personal responsibility; recognising management competencies.
	4.3	Develop written guidelines to obtain feedback that is solicited, honest, straightforward, and helpful but not all positive or negative to facilitate reviews.
	4.4	Develop a framework and process of setting goals which demand time, self-discipline, commitment, dedication and practice.
	4.5	Establish goals that are specific and concrete, measurable, relate to time, realistic and attainable.

4.6 Establish how priorities including identifying conflicts and trade-offs and how these may be resolved.

4.7 Identify potential problems, obstacle and risks in meeting goals.

4.8 Identify specific action steps that are to be performed in order to accomplish goals.

4.9 Indicate the method by which results will be measured.

4.10 Establish milestones for reviewing progress and tying these to specific dates on a calendar.

4.11 Identify sources of help to obtain resources.

4.12 Demonstrate evidence of the ability to review process and periodically revise goals.

RANGE STATEMENT

All range statements must be assessed:

1. **Concepts** may include but not limited to:

   - Risk
   - Entrepreneurship
   - Macro-screening
   - Micro-screening
   - Competition
   - Wage employment

2. **Influence factors** may include but not limited to:

   - Market conditions
   - Markets – demand/supply
   - Global trends
   - Level of economic activities
   - Funding
   - Economic stability
   - Social stability
   - Resources available

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know and understand:

1.   What is a personal entrepreneurial profile system.

2.   How to identify concepts associated with entrepreneurship.

3.   How to identify and explain factors which influence entrepreneurship locally and regionally.

4.   How to clearly explain the importance of entrepreneurship to economic development and employment.

5.   Whit it is important to demonstrate an understanding of the process and discipline that enables an individual to evaluate and shape choices and to initiate effective action.

6.   What is the difference between wage employment and entrepreneurial ventures.

7.   What are effective management systems for:

- marketing

- operations/productions

- finance

- administration

- law

8.   How to measure feedback.

9.   What are the methods for developing a personal and business plan.

10.   What is the difference between entrepreneurial and management culture.

11.   How to determine barriers to entrepreneurship.

12.   How to minimise exposure to risk.

13.   How to exploit any available resource.

14.   How to tailor a reward system to meet a particular situation.

15.   How to effectively plan and execute activities.

16.   How to use computer technology to undertake assessments.

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. 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.

U88002   **Follow hygiene and product safety procedures**

Unit Descriptor:

> This unit deals with the knowledge, skills and attitudes required to follow the key hygiene and sanitation procedures required in an agro-processing plant. It covers cleaning equipment and work areas during operating processes and identifying and taking action against risks.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Maintain cleanliness of work area and equipment	1.1	Select and wear the appropriate personal protective equipment in accordance with occupational health and safety requirements.
		1.2	Clean and sanitise equipment and work area before and after operations in accordance with regulatory requirements, Good Manufacturing Practices (GMPs) and organisational standards.
2.	Eliminate sources of contamination.	2.1	Identify the risk of contamination, cross-contamination and spoilage through GMPs and food safety requirements.
		2.2	Take immediate corrective action to minimise and prevent risks of contamination, cross-contamination or spoilage in accordance with GMPs and organisational requirements.
		2.3	Take corrective action when contamination is identified according to organisational and industry requirements.
		2.4	Record and report incidents of contamination in accordance with organisational and industry requirements.
3.	Maintain hygiene and sanitation standards	3.1	Follow organisational standards for personal hygiene.

3.2   Handle and store products and equipment according to GMPs and organisational hygiene and sanitation policies when undertaking work.

3.3   Observe organisational standards for hygiene and sanitation.

RANGE STATEMENT

All range statements must be assessed:

1. **Personal protective equipment** may include but not limited to:

   - Goggles/glasses
   - Face masks/respirators
   - Hats
   - Boots/shoes
   - Gloves
   - Overalls/coveralls
   - Hearing protection

2. **Sanitisation** may include but not limited to:

   - Heat
   - Chemicals

3. **Risk** may include but not limited to:

   - Physical agents
   - Chemical agents
   - Microbiological and biological agents

4. **Corrective action** may include but not limited to:

   - Hand washing
   - Good housekeeping practices
   - Maintaining personal hygiene

5. **Product** may include but not limited to:

   - Meat
   - Fish
   - Shellfish
   - Fruits
   - Vegetables
   - Herbs
   - Root crops
   - Chemicals
   - Packaging materials
   - Gases

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are Good Manufacturing Practices (GMPs) and the organisational hygiene and sanitation procedures.

2. What are the different methods to clean and sanitise equipment.

3. What is contamination and cross-contamination and how to identify them.

4. How to avoid contamination/cross-contamination.

5. What corrective action can be taken to deal with contamination/cross-contamination.

6. What are the organisational procedures for reporting hygiene risks and why it is important to do so.

7. What are the organisational and industry requirements for handling and storing products.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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. 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.

U88102   **Follow receiving, handling and storage procedures**

Unit Descriptor:	This unit deals with the knowledge, skills and attitudes required to receive, handle and store goods in an agro-processing facility. It deals with ensuring that the correct goods are received and handled safely and that records are kept up-to-date.

ELEMENT	**PERFORMANCE CRITERIA**

Candidates must be able to:

1.   Receive goods

    1.1   Confirm that required tools and equipment for receiving goods are available and in good working condition.

    1.2   Confirm that the area for receiving goods is clean and free from hazards and the necessary services are available.

    1.3   Check goods received in accordance with Good Manufacturing Practices (GMPs) and confirm that they match specifications in the order logs.

    1.4   Inspect goods received to ensure that they are in an acceptable condition and identify and separate goods that are unacceptable.

    15   Record defective goods and complete required documentation in accordance with organisational requirements.

2.   Handle goods

    2.1   Confirm that the area for handling the goods is clean and free from hazards.

    2.2   Select and use the appropriate personal protective equipment in accordance with organisational and occupational health and safety requirements.

    2.3   Select and use the appropriate equipment for handling goods.

		2.4	Handle move and set down goods in accordance with occupational health and safety requirements.
3.	Store goods	3.1	Sort goods in accordance with storage requirements.
		3.2	Confirm that goods are stored in the appropriate location in accordance with food safety requirements and GMPs.
		3.3	Follow cold chain practices as required by GMPs and food safety regulations.
		3.4	Complete all required documentation in accordance with organisational requirements.

RANGE STATEMENT

All range statements must be assessed:

1. **Equipment** may include but not limited to:

   - Lifting
   - Transporting

2. **Goods** may include but not limited to:

   - Meat
   - Fish
   - Shellfish
   - Fruits
   - Vegetables
   - Herbs
   - Root crops
   - Chemicals
   - Packaging materials
   - Gases

3. **Hazards** may include but not limited to::

   - Physical
   - Materials
   - Ergonomic
   - Environmental
   - Biological

4. **Services** may include but not limited to:

   - Electricity
   - Water
   - Chemicals
   - Steam/ice

5. **Condition** may include but not limited to:

   - Damage free
   - Not leaking
   - Pest free
   - No off odor
   - No off-colour
   - Not thawed
   - Best before date/expiry date
   - Lot codes/batch numbers

6. **Documentation** may include but not limited to:

   - Written
   - Electronic

7. **Identification** may include but not limited to:

   - Tagging
   - Labelling
   - Wrapping

8. **Personal protective equipment** may include but not limited to:

   - Face goggles/glasses/ respirators/masks
   - Hats
   - Boots/shoes
   - Gloves
   - Overalls/coveralls
   - Hearing protection

9. **Location** may include but not limited to:

   - Dry storage
   - Refrigerated
   - Frozen

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are the required tools for receiving goods.

2. Why it is important to check the delivery vehicle.

3. What are acceptable conditions for goods and why it is important for these conditions to be met.

4. How and why defective goods must be separated.

5. What are hazards and obstructions, how to check for them and how to ensure that the receiving area is free of them.

6. What is the organisation's documentation process and why it is important to maintain records of defective goods.

7. What are the organisation's goods specifications.

8. What are the types of equipment used to handle goods and how to use them.

9. What are the health and safety requirements and organisational procedures for handling, moving and settling goods.

10. What are the correct methods for handling, moving and settling goods.

11. How to select and use the most appropriate personal protective equipment when receiving goods.

12. What are the GMPs for sorting and storing goods.

13. What are the organisational requirements for sorting and storing goods.

14. How to identify goods that do not meet quality standards.

15. What are the organisation's requirements for completing documentation in relation to receiving and sorting goods.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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. 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.

U88202   **Perform processing procedures**

Unit Descriptor:

> This unit deals with the knowledge, skills and attitudes required to process food including preparing work areas, equipment and materials and closing down processing operations. It examines mixing ingredients, using processing equipment and monitoring control points. Disposal of waste and maintaining records are also included.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Prepare for processing	1.1	Select and the appropriate personal protective equipment wear in accordance with organisational requirements
		1.2	Clean and sanitise the work area, equipment and utensils in accordance with Good Manufacturing Practices (GMPs).
		1.3	Prepare processing equipment in accordance with GMPs.
		1.4	Obtain materials from storeroom or supplier and sort, grade and/or weigh according to GMPs.
		1.5	Carefully inspect the quality of materials to be used for processing to ensure they meet with GMPs.
		1.6	Wash and rinse materials in accordance with GMPs.
		1.7	Prepare materials in accordance with GMPs and organisational requirements.
2.	Process food	2.1	Mix ingredients in accordance with food safety regulations and organisational requirements.
		2.2	Confirm that food is processed in accordance with GMPs and food safety and industry standards.

2.3 Observe and regulate equipment gauges, sensors and solutions in order to maintain control.

2.4 Monitor and document food parameters against safety and industry standards.

2.5 Record and report product deviations and the corrective action and containment measures taken in accordance with organisational requirements.

3. Shut down processing operations

3.1 Complete end of batch procedures in accordance with instructions and GMPs.

3.2 Operate and close down processing equipment in accordance with organisational procedures and manufacturer's specifications.

3.3 Clean equipment after use according to organisational and industry safety and hygiene standards.

3.4 Dispose of and report waste in accordance with GMPs, regulatory requirements and organisational requirements.

3.5 Maintain records according to organisational requirements.

RANGE STATEMENT

All range statements must be assessed:

1. **Personal protective equipment** may include but not limited to:

   - Goggles/glasses
   - Face masks/respirators
   - Hats
   - Boots/shoes
   - Gloves
   - Overalls/coveralls
   - Hearing protection

2. **Sanitisation** may include but not limited to:

   - Heat
   - Chemicals

3. **Equipment** may include but not limited to:

   - Manual
   - Mechanical
   - Electronic
   - Automated
   - Semi-automated

4. **Materials** may include but not limited to:

   - Fruits/Vegetables
   - Meats
   - Poultry
   - Fish
   - Herbs
   - Spices
   - Dairy
   - Root crops

5. **Preparation** may include but not limited to:

   - Cleaning
   - Pealing/cutting/slicing/trimming

6. **Ingredients** may include but not limited to:

   - Food
   - Dry
   - Wet
   - Additives

7. **Process** may include but not limited to:

   - Fish and seafood processing
   - Drying/dehydration
   - Pickling/brining
   - Juicing
   - Boiling/cooking,
   - Water bath canning,
   - Fermentation,
   - Smoking
   - Blending and mixing

8. **Parameters** may include but not limited to:

   - Taste/smell
   - Texture/mouthfeel
   - Colour
   - Dimensions/size
   - Quantity
   - Viscosity
   - Brix
   - Solids
   - Moisture content

9. **Reports** may include but not limited to:
   - Verbal
   - Written
   - Electronic

10. **Waste** may include but not limited to:

    - Liquid
    - Solid
    - Hazardous
    - Organic
    - Recyclable

11. **Records** may include but not limited to:

    - Written
    - Electronic

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. How to clean and sanitise the work area and equipment.

2. What are the different types of equipment used in processing and how to use them.

3. How to check equipment to ensure that it is in good working condition.

4. What are Good Manufacturing Practices (GMPs).

5. What are critical control points and how to observe and regulate equipment and solutions to maintain them.

6. What are end of batch procedures and how they are carried out.

7. How to shut down processing equipment.

8. How to clean equipment after use.

9. What are the organisational safety and hygiene standards.

10. What are the different types of waste generated during processing and how to dispose of them.

11. What are product deviations and the different types of deviations that occur during the processing.

12. What are the organisational requirements for reporting waste and product deviations and maintaining records.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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. 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.

U88302 **Perform packaging procedures**

Unit Descriptor:

> This unit deals with the knowledge, skills and attitudes required to carry out packaging operations. It involves pre-packaging preparation including gathering information, cleaning, sanitizing and testing the equipment. Candidates will be required to package and label products, operate and monitor the machinery and perform close out procedures.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Prepare for packaging	1.1	Obtain the required information for packaging from relevant personnel.
		1.2	Clean and sanitise the packaging area according to Good Manufacturing Practices (GMPs).
		1.3	Select and use the appropriate personal protective equipment in accordance with organisational requirements.
		1.4	Confirm that the required materials are available and loaded into the packaging equipment in accordance with Standard Operating Procedures (SOPs).
		1.5	Perform start-up procedures according to SOPs to ensure the equipment is working well and recalibrate when necessary.
		1.6	Report any problems to the supervisor as they arise and any corrective action and containment measures taken.
2.	Perform packaging	2.1	Select and wear the appropriate personal protective equipment in accordance with occupational health and safety and organisational requirements.
		2.2	Operate equipment in accordance with SOPs.

		2.3	Apply and verify batch numbers, best before, expiry and used by dates and lot numbers in accordance with regulatory requirements.
		2.4	Monitor equipment and record variations in operating conditions in accordance with SOPs.
		2.5	Identify, rectify and/or report variations and out of specification problems in the packaging process in accordance with organisational requirements.
		2.6	Examine packaging quality and seal integrity to ensure that specifications are met.
		2.7	Notify supervisor of any delays in the process in accordance with organisational procedures.
		2.8	Maintain hygiene and sanitation standards according to GMPs.
3.	Conduct labeling procedures	3.1	Identify the type of labels required for the products to be packaged.
		3.2	Check the number of labels to ensure that they are sufficient and replenish stock according to organisational requirements.
		3.3	Check the accuracy of labels against specifications.
		3.4	Apply the required labels as specified by SOPs.
4.	Close out packaging process	4.1	Complete end of batch procedures in accordance with work instructions.
		4.2	Shut down packaging equipment in accordance with standard operating procedures (SOPs).
		4.3	Clean equipment after use according to GMPs.

		4.4	Dispose of damaged and discarded materials in accordance with the organisational waste disposal procedures.
5.	Complete documentation	5.1	Report waste and packaging deviations according to organisational requirements.
		5.2	Maintain records according to organisational requirements.

RANGE STATEMENT

All range statements must be assessed:

1. **Information** may include but not limited to:

   - Verbal
   - Written
   - Electronic

2. **Relevant personnel** may include but not limited to:

   - Supervisors
   - Managers
   - Line staff
   - Colleagues

3. **Sanitise** may include but not limited to:

   - Heat
   - Chemicals

4. **Personal protective equipment** may include but not limited to:

   - Goggles/glasses
   - Face masks/respirators
   - Hats
   - Boots/Shoes
   - Gloves
   - Overalls/coveralls
   - Hearing protection

5. **Materials** may include but not limited to:

   - Food
   - Packaging

6. **Packaging** may include but not limited to:

   - Bottling/canning
   - Bagging/shrink wrapping
   - Vacuum packing

7. **Equipment** may include but not limited to:

   - Manual
   - Mechanical
   - Electrical
   - Automated
   - Semi- automated

8. **Report** may include but not limited to:

   - Verbal
   - Written
   - Electronic

9. **Problems** may include but not limited to:

   - Procedural
   - Administrative
   - Inter-personal

10. **Variations** may include but not limited to:

    - Product
    - Equipment
    - Packaging

11. Products may include but not limited to:

- Meat
- Vegetables
- Fruit
- Poultry
- Fish
- Herbs
- Spices
- Dairy
- Root crops

12. Specifications may include but not limited to:

- Batch numbers
- Best before dates
- Expiry dates
- Used by dates
- Lot numbers

13. Waste may include but not limited to:

- Liquid
- Solid
- Hazardous
- Organic
- Recyclable

14. Records may include but not limited to:

- Written
- Electronic

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. Why it is important to obtain information about packaging requirements.

2. How to clean and sanitise the packaging area.

3. How to select and use the appropriate personal protective equipment required for packaging.

4. How to check and adjust the settings on packaging equipment.

5. What materials are required for packaging and how to load them into the equipment.

6. How to operate packaging equipment.

7. When to recalibrate equipment.

8. How to identify and rectify problems with the equipment.

9. Why it is important to report problems.

10. What is the organisational process for reporting problems.

11. What are the organisational requirements for operating equipment.

12. How to monitor equipment for variations in operating conditions.

13. How to identify, rectify and/or report variations in the packaging process and why it is important to do so.

14. How to monitor packaging quality and seal integrity to meet specifications.

15. What are the organisation's hygiene and sanitation standards.

16. How to confirm information on the type and size of labels used for each product.

17. How to determine the type and quantity of labels required.

18. What are the organisational requirements for replenishing stock.

19. How to identify the product contained within the packaging.

20. How to apply labels.

21. What are end of batch procedures and how to complete them.

22. How to shut down packaging equipment and what are the organisational procedures and manufacturer's recommendations for doing so.

23. How to identify, schedule and report maintenance requirements.

24. How to dispose of damaged labels and packaging cases.

25. How and why it is important to report waste and product deviations.

26. What are the organisational requirements for maintaining records.

27. What are GMPs related to packaging.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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. 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.

U88402   **Monitor a quality management system**

Unit Descriptor:

> This unit deals with the knowledge, skills and attitudes required to monitor a quality assurance system. It involves the preparation of quality control equipment including cleaning and sanitation, operating and monitoring the quality control system including monitoring control points and closing down the quality control process including running end of batch procedures and disposal of waste.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1.	Prepare quality control equipment	1.1	Clean and sanitise quality control equipment according to Good Manufacturing Practices (GMPs) and organisational requirements.
		1.2	Select and wear the appropriate personal protective equipment according to organisational health and safety requirements.
		1.3	Check the condition of equipment ensuring that it is within the calibration period, standardising and adjusting equipment settings where necessary to meet organisational requirements.
2.	Operate and monitor system	2.1	Confirm that control instruments are available and ready for use.
		2.2	Start- up quality control system according to Standard Operating Procedures (SOPs).
		2.3	Monitor control points to confirm that performance standards and maintenance specifications are met in accordance with organisational requirements.
		2.4	Monitor environmental requirements to ensure health and safety is maintained.
3.	Close quality control process	3.1	Shut down quality control equipment in accordance with organisational requirements.

		3.2	Clean and sanitise equipment after use and in accordance with safety and hygiene standards.
		3.3	Monitor and dispose of waste generated by the system according to organisational standards.
4.	Complete documentation	4.1	Report deviations according to GMPs and organisational requirements.
		4.2	Maintain records according to organisational requirements.

RANGE STATEMENT

All range statements must be assessed:

1. **Sanitisation** may include but not limited to:

   - Heat
   - Chemicals

2. **Equipment** may include but not limited to:

   - Manual
   - Mechanical
   - Electrical

3. **Personal protective equipment** may include but not limited to:

   - Goggles/glasses
   - Face masks/respirator
   - Hats
   - Boots/shoes
   - Gloves
   - Overalls/coveralls
   - Hearing protection

4. **Control instruments** may include but not limited to:

   - Digital
   - Manual
   - Mechanical

5. **Waste** may include but not limited to:

   - Liquid
   - Solid
   - Hazardous
   - Organic
   - Recyclable

6. **Reports** may include but not limited to:

   - Verbal
   - Written
   - Electronic

7. **Records** may include but not limited to:

   - Written
   - Electronic

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What is quality control equipment and how it should be sanitised.

2. What is the appropriate personal protective equipment used in monitoring quality control and how to use it.

3. How to check the condition of quality control equipment.

4. What are the organisational requirements regarding the settings on the equipment and how to adjust the controls.

5. What are quality control instruments and how to use them.

6. How to start up a quality control system.

7. What are control points and maintenance specifications and how to monitor and confirm them.

8. What are the environmental requirements and how to monitor them.

9. What are Good Manufacturing Practices (GMPs)

10. How to complete end of batch procedures.

11. How to shut down quality control equipment.

12. What are the different types of waste that is generated in quality control and how to be disposed of it.

13. How to identify deviations and maintain records in accordance with organisational requirements.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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. 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.

U88702   **Analyse data using mathematical principles**

Unit Descriptor:

> This unit deals with the knowledge, skills and attitudes required to use mathematical principles in the description and analysis of data in a work environment.

ELEMENT		PERFORMANCE CRITERIA	

Candidates must be able to:

1.	Identify common units of measurement and dimensions.	1.1	Confirm SI units of measurement and related unit symbols to be used.
		1.2	Identify and apply common formulae used to measure characteristics of food.
		1.3	Perform accurate calculations involving fractions and ratios according to specifications.
		1.4	Identify common units of measurement and dimensions used to describe physical properties of materials and food.
2.	Apply linear algebra to analyse organisational information.	2.1	Calculate an unknown value given two known values.
		2.2	Apply the appropriate principles of transposing values to solve workplace problems.
3.	Use graphs to analyse organisational information	3.1	Identify the applicable data analysis and presentation requirements.
		3.2	Select and generate the suitable graphs to analyse and display workplace information.
		3.3	Construct a process control chart according to specifications.

RANGE STATEMENT

All range statements must be assessed:

1. **Measurement** may include but not limited to:

   - Density
   - Specific gravity
   - Volume
   - Weight
   - Mass
   - Speed
   - Viscosity
   - Velocity

2. **Graphs** may include but not limited to:

   - Statistical Process Control (SPC) charts
   - XY charts

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are SI units of measurements and other related unit symbols.

2. What are common formulae used to measure characteristic of food and how to apply them.

3. How to perform calculations involving fractions and ratios.

4. What are common units of measurement and dimensions used to describe food and material properties.

5. How to calculate an unknown value given two known values.

6. What are the principles of transposing values and how to do use them to solve workplace problems.

7. Why it is important to seek the assistance of colleagues and authorities in emergency situations.

8. What are data analysis and presentation techniques and how to identify and use the appropriate one.

9. How to select and generate suitable graphs in order to display workplace information.

10. What is a process control chart and how to construct one.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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. 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.

U88802   **Perform drying and dehydration processes**

Unit Descriptor:

> This unit deals with the knowledge, skills and attitudes required to prepare for drying and dehydrating operations including calculating batch sizes, cleaning and setting up equipment and identifying and solving operational problems. It includes carrying out drying and dehydrating operations to ensure that the product meets specifications is also examined as well as shutting down equipment, conducting post production cleaning and maintenance, disposing of waste and maintaining records.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1. Prepare for drying and dehydration process

1.1 Read and interpret the production order, seeking clarification from supervisor where necessary.

1.2 Check the availability of raw materials and equipment.

1.3 Calculate the batch size based on the production order and machinery capacity in accordance with organisational requirements.

1.4 Calculate the raw materials required for processing in accordance with organisational requirements.

1.5 Confirm that the produce of required specifications is available and fit for use.

1.6 Select and wear the appropriate personal protective equipment in accordance with occupational health and safety requirements.

1.7 Clean, sanitise and set up equipment according to drying and dehydrating requirements.

1.8 Start up the equipment and check that it is running in accordance with Standard Operating Procedures (SOPs) and manufacturers' guidelines.

		1.9	Promptly identify any operating problems and take the appropriate action in accordance with SOPs.
2.	Perform drying and dehydration activities	2.1	Load the produce into the equipment in accordance with GMPs and organisational requirement.
		2.2	Start, observe and maintain drying and dehydrating process according to specification and SOPs.
		2.3	Optimise production flow within scope of work to increase productivity in accordance with SOPs.
		2.4	Evaluate the quality of products in accordance with organisational procedures.
		2.5	Confirm that the product meets the correct specifications in accordance with SOPs.
		2.6	Take effective action in response to problems within the limits of responsibility and refer those outside to relevant persons.
		2.7	Confirm that the product is transferred to the next stage in the manufacturing operation.
		2.8	Work and maintain the cleanliness of the work area in accordance with environmental, health, safety and hygiene standards and organisational requirements.
3.	Finish drying and dehydrating operations	3.1	Follow SOPs to shut down equipment according to manufacturer's instructions.
		3.2	Handle products that can be re-cycled and or reworked in accordance with standard operating procedures (SOPs).
		3.3	Dispose of waste in accordance GMPs, regulatory and environmental requirements.

4.	Perform post-production cleaning and maintenance of equipment	4.1	Clean and sanitise the work area, machinery, equipment and tools in accordance with GMPs and organisational requirements.
		4.2	Fix any minor repairs/faults in machinery in accordance with standard operating procedures (SOPs).
		4.3	Confirm the periodic maintenance of machinery and equipment within scope of responsibility following SOPs or suppliers' instructions/manuals.
5.	Document and maintain records on finished products	5.1	Record types of products processed in accordance with organisational requirements.
		5.2	Record details of the raw materials processed such as batch number, date of manufacture, date of expiry, stage it was transferred to, storage conditions, etc. in accordance with organisational requirements.
		5.3	Maintain records of deviations (if any) and waste in accordance with organisational requirements.
		5.4	Verify and track documents from processed food to raw materials, in case of quality concerns and for quality audits.

RANGE STATEMENT

All range statements must be assessed:

1. **Raw materials/produce/product** may include but not limited to:

   - Fruits/vegetables
   - Herbs
   - Spices
   - Root crops

2. **Equipment/machinery/tools** may include but not limited to:

   - Manual
   - Mechanical
   - Electronic
   - Automatic
   - Semi-automated

3. **Specifications** may include but not limited to:

   - Quality
   - Quantity
   - Size
   - Type of produce

4. **Fitness for use** may include but not limited to::

   - Clean
   - Peeled/skinned
   - Wholesome
   - Pest free

5. **Personal protective equipment** may include but not limited to:

   - Eye and face protection
   - Head protection
   - Foot and leg protection
   - Hand and arm protection
   - Body protection
   - Hearing protection
   - Lung protection

6. **Sanitisation** may include but not limited to:

   - Heat
   - Chemicals

7. **Problems/deviations** may include but not limited to:

   - Quality
   - Quantity
   - Process
   - Machinery

8. **Relevant persons** may include but not limited to:

   - Supervisor
   - Manager
   - Technician/equipment operator

9. **Dispose** may include but not limited to:

   - Recycle
   - Dump

11. **Period** may include but not limited to:

   - Daily
   - Weekly
   - Monthly
   - Quarterly
   - Half yearly
   - Annual

10. **Waste** may include but not limited to:

   - Liquid
   - Solid
   - Hazardous
   - Organic
   - Recyclable

12. **Records** may include but not limited to:

   - Written
   - Electronic

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are Good Manufacturing Practices (GMPs), occupational health and safety regulations, environmental standards and other industry standards specific to agro-processing operations.

2. What are the company's Standards Operating Procedures (SOPs) related to drying and dehydration operations.

3. What is the production order and why it is important to read, understand and ask for clarification where necessary.

4. What types of raw materials and equipment are used in the drying and dehydration process and how to check their availability.

5. How to calculate batch sizes and the raw materials required for processing based on the production order and machine capacity.

6. How to ensure that produce is available and fit for use.

7. What is personal protective equipment and how to select and wear the appropriate type.

8. How to clean, sanitise and set-up equipment according to requirements.

9. How to start up equipment and check to ensure that it is running properly.

10. What types of operating problems can occur in drying and dehydrating operations and how to take effective action to solve them.

11. How to load produce into drying and dehydrating equipment.

12. How to start, observe and maintain the drying and dehydration process in accordance with specifications and SOPs.

13. How to optimise the production flow within one's scope of work in order to increase productivity.

14. How to evaluate the quality of the product and how to ensure that the dried product meets the correct specification.

15. Why it is important to escalate problems that are outside the limits of your responsibility.

16. What is the next step in the manufacturing process after drying and how to transfer dried products there.

17. How to maintain the cleanliness of the work area while working.

18. What are the specifications for shutting down drying operations.

19. What are standard operating procedures for shutting down drying and dehydrating operations.

20. How to identify products that can be recycled and reworked and how to deal with it.

21. What waste is produced in drying and dehydrating operations and how to dispose of it.

22. How to clean and sanitise the work area, equipment, machinery and tools and why it is important to do so after use.

23. How to carry out minor repairs on all machinery in accordance with SOPs.

24. What are the periodic maintenance schedules for the machinery used in drying and dehydration operations and how to ensure that they are met.

25. What are the organisational requirements for maintaining records related to drying and dehydration including types and details of materials being used, deviations and waste

26. How to verify and track documents from processed food to raw materials for the purpose of quality concerns or audits.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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. 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.

U89202   **Perform fermentation operations**

Unit Descriptor:

> This unit covers the knowledge, skills and attitudes required to execute the fermentation process including calculating batch sizes. Candidates will also be required to prepare, check and clean machinery and equipment; monitor the fermentation process and identify and rectify out-of-specification outcomes. After processing activities such as shutting down processing, disposal of waste and reporting are also included.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1. Prepare fermentation equipment and process for operation	1.1 Read and interpret the production order, seeking clarification from supervisor where necessary.
	1.2 Check the availability of raw materials and equipment.
	1.3 Calculate the batch size based on the production order and machine capacity in accordance with organisational requirements.
	1.4 Calculate the raw materials required for processing.
	1.5 Confirm that raw materials are available and that they meet production requirements.
	1.6 Select and use the appropriate personal protective equipment in accordance with organisational and occupational health and safety requirements.
	1.7 Clean, sanitise and carry out maintenance on equipment, machinery and fermentation vessel in accordance with Good Manufacturing Practices (GMPs) and Standard Operating Procedures (SOPs).

		1.8	Fit and adjust machine components and related attachments to meet operating and production requirements, adjusting settings where necessary to meet processing or operating parameters.
		1.9	Check the performance of machines and equipment and adjust where required in accordance with SOPs.
2.	Conduct the fermentation process	2.1	Commence the fermentation process in accordance with GMPs and organisational requirements.
		2.2	Set temperature adjusting settings as required by GMPs and organisational requirements.
		2.3	Optimise production flow within the scope of work to increase productivity in accordance with SOPs.
		2.4	Check equipment to identify variations in operating conditions and adjust in accordance with SOPs, reporting variations and maintenance requirements and organisational requirements.
		2.5	Monitor the fermentation process to ensure that undesirable micro-organisms are excluded and specifications are met in accordance with industry standards and organisational requirements.
		2.6	Identify, rectify and report out-of-specification product or process outcomes.
		2.7	Evaluate the quality of products in accordance with organisational procedures.
		2.8	Maintain the cleanliness of the work area in accordance with health, safety and hygiene standards and organisational requirements.
3.	Complete fermentation operations	3.1	End the process when the product meets the required parameters as outlined by specifications.

	3.2	Follow SOPs to shut down the process according to organisational requirements.
	3.3	Handle products that can be re-cycled and/or reworked appropriately in accordance with SOPs.
	3.4	Dispose of waste in accordance with GMPs, industry and environmental requirements.
4. Carry out post-production cleaning and regular maintenance of equipment	4.1	Clean and sanitise the work area, machinery, equipment and tools in accordance with GMPs and organisational requirements.
	4.2	Fix minor repairs or faults in accordance with SOPs.
	4.3	Confirm that periodic maintenance of machinery and equipment is carried out following SOPs or manufacturer's instructions.
5. Document and maintain records on finished products	5.1	Record the types of products processed in accordance with organisational requirements.
	5.2	Record the details of the materials processed in accordance with organisational requirements.
	5.3	Maintain records of deviations (if any) and waste related to fermentation.
	5.4	Verify documents and track them from processed foods to raw materials for quality concerns and audits.

RANGE STATEMENT

All range statements must be assessed:

1. **Raw materials** may include but not limited to:

   - Fruits/vegetables
   - Meats
   - Poultry
   - Fish
   - Herbs
   - Spices
   - Dairy
   - Root crops

2. **Equipment/machinery/tools** may include but not limited to:

   - Manual
   - Mechanical
   - Electronic
   - Automatic/semi-automated

3. **Personal protective equipment** may include but not limited to:

   - Goggles/glasses
   - Face masks/respirators
   - Hats
   - Boots/shoes
   - Gloves
   - Overalls/coveralls
   - Hearing protection

4. **Sanitise** may include but not limited to:

   - Heat (steam, hot water)
   - Chemicals

5. **Report** may include but not limited to:

   - Verbal
   - Written
   - Electronic

6. **Waste** may include but not limited to:

   - Liquid
   - Solid
   - Hazardous
   - Organic
   - Recyclable

7. **Dispose** may include but not limited to:

   - Recycling
   - Dumping

8. **Parameters** may include but not limited to:

   - Taste/smell
   - Texture/mouthfeel
   - Colour
   - Dimensions/size
   - Count
   - Viscosity
   - Brix

9. **Periodic** may include but not limited to:

- Daily
- Weekly
- Monthly
- Quarterly
- Half yearly

10. **Record/documents** may include but not limited to:

- Written
- Electronic

Deviations may include but not limited to:

- Quality
- Quantity
- Process
- Machinery

11. **Details** may include but not limited to:

- Batch number
- Time of packing
- Date of manufacture
- Other label details
- Primary and secondary packaging materials for all finished products
- Storage conditions

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are Good Manufacturing Practices (GMPs), occupational health and safety regulations, environmental and other industry standards specific to agro processing operations.

2. What are the organisational Standard Operating Procedures (SOPs) related to fermenting operations.

3. What is the production order and why it is important to read, understand and ask for clarification where necessary.

4. What types of raw materials and equipment are used in the fermenting process and how to check their availability.

5. How to calculate batch sizes and the raw materials required for processing based on the production order and machine capacity.

6. What is personal protective equipment and how to select and use most appropriate.

7. What equipment and machinery are used in fermentation operations.

8. How to clean, sanitise and carry out maintenance on equipment and machinery.

9. How to fit and adjust machine components and settings to meet operating requirements and how to check the performance of machines and equipment.

10. How to start and operate the fermentation process.

11. How to check equipment and identify variations in operating conditions.

12. How to adjust equipment and report variations in operations.

13. How to observe the fermentation process to ensure that specifications are met.

14. How to identify, rectify and report out-of-specifications products or process outcomes.

15. How to evaluate the quality of the product.

16. How to maintain the cleanliness of the work area.

17. How to end the fermentation process when the required parameters are met.

18. What are the SOPs for shutting down fermenting operations.

19. How to identify products that can be recycled and reworked and how to deal with them.

20. What waste is produced in fermenting operations and how to dispose of it c.

21. How to clean and sanitise the work area, equipment, machinery and tools and why it is important to do so after use.

22. How to carry out minor repairs on all machinery in accordance with SOPs.

23. What are the periodic maintenance schedules for the machinery used in fermenting operations and how to ensure that they are met.

24. What are the organisational requirements for maintaining records related to fermentation including types and details of materials being used, deviations and waste.

25. How to verify and track documents from processed food to raw materials for the purpose of quality concerns or audits.

EVIDENCE GUIDE

For assessment purposes:

(1) Critical Aspects of Evidence

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

(2) Method 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
- 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.

U89702   **Perform pasteurisation**

Unit Descriptor:

> This unit covers the knowledge, skills and attitudes required to perform the pasteurisation process. It involves calculating batch size and raw materials required to meet the production order, observing the pasteurisation process to ensure that specifications are met and rectifying and reporting out-of-specification processes or products. Candidates are also required to clean and maintain equipment, tools and machinery.

ELEMENT	PERFORMANCE CRITERIA

Candidates must be able to:

1. Calculate batch size	1.1 Read and interpret the production order, seeking clarification from supervisor where necessary.
	1.2 Check the availability of raw material and equipment.
	1.3 Determine the batch size based on the production order and machine capacity in accordance with organisational requirements.
	1.4 Gauge the raw materials required for processing in accordance with organisational requirements.
2. Prepare for pasteurisation	2.1 Select and wear the appropriate personal protective equipment in accordance with occupational health and safety requirements and organisational requirements.
	2.2 Clean and sanitise equipment according to Good Manufacturing Practices (GMPs) and organisational requirements.
	2.3 Fit and adjust machine components and related attachments to meet operating requirements, adjusting settings where necessary to meet processing or operating parameters as required by production requirements.

	2.4	Carry out pre-start checks as required by workplace requirements.
	2.5	Obtain produce from store room, checking physical parameters to ensure conformance to industry and organisational quality standards, removing and disposing of those that do not conform.
	2.6	Prepare produce according to GMPs and organisational requirements.
3. Operate and monitor the pasteurisation process	3.1	Start and operate the pasteurising equipment in accordance with GMPs and workplace procedures.
	3.2	Optimise production flow within scope of work to increase productivity in accordance with SOPs.
	3.3	Check equipment to identify variations in operating conditions and report any variations in accordance with workplace requirements.
	3.4	Monitor the pasteurisation process to ensure that specifications are met in accordance with industry standards and organisational requirements.
	3.5	Identify, rectify and/or report out-of-specification product/process outcomes in order to maintain the process within specification.
	3.6	Evaluate quality of product in accordance with organisational procedures.
	3.7	Maintain the cleanliness of the work area in accordance with environmental, health, safety and hygiene standards and organisational requirements.
4. Finish pasteurising operations	4.1	Follow SOPs to shut down equipment according to organisational requirements and manufacturer's instructions.

	4.2 Handle products that can be re-cycled or re-worked in accordance with SOPs.
	4.3 Dispose of waste in accordance GMPs, industry and environmental requirements.
5. Manage the post-production process	5.1 Clean and sanitise the work area, machinery, equipment and tools in accordance with GMPs and organisational requirements.
	5.2 Fix any minor repairs/faults in machinery in accordance with SOPs.
	5.3 Confirm that periodic maintenance of machinery and equipment is carried out following SOPs or manufacturer's instructions.
6. Document and maintain records on finished products	6.1 Record the types of products processed in accordance with organisational requirements.
	6.2 Record the details of the materials processed in accordance with organisational requirements.
	6.3 Maintain records of deviations (if any) and waste related to processed produce.
	6.4 Verify the documents and track them from processed food to raw materials, for quality concerns and audits.

RANGE STATEMENT

All range statements must be assessed:

1. **Raw materials/produce/products** may include but not limited to:

   - Fruits/ vegetables
   - Meats
   - Poultry
   - Fish
   - Root crops

2. **Equipment/machinery/tools** may include but not limited to:

   - Manual
   - Mechanical
   - Electronic
   - Automatic
   - Semi-automated

3. **Personal protective equipment** may include but not limited to:

   - Goggles/glasses
   - Face masks/respirators
   - Hats
   - Boots/shoes
   - Gloves
   - Overalls/coveralls
   - Hearing protection

4. **Sanitise** may include but not limited to:

   - Heat
   - Chemicals

5. **Parameters (categories - optical, rheological, stability, flavor)** may include but not limited to:

   - Taste/smell
   - Texture/mouthfeel
   - Colour
   - Dimensions/size
   - Count
   - Viscosity
   - Brix

6. **Prepare** may include but not limited to:

   - Cleaning
   - Pealing/cutting/slicing/trimming

7. **Pasteurisation** may include but not limited to:

   - UHT Pasteurisation
   - HTST Pasteurisation

8. **Dispose** may include but not limited to:

   - Recycling
   - Dumping

9. **Waste** may include but not limited to:

    *   Liquid
    *   Solid
    *   Hazardous
    *   Organic
    *   Recyclable

10. **Periodic** may include but not limited to:

    *   Daily
    *   Weekly
    *   Monthly
    *   Quarterly
    *   Half yearly
    *   Annual

11. **Report** may include:

    *   Verbal
    *   Written
    *   Electronic

12. **Details** may include:

    *   Batch number
    *   Time of packing
    *   Date of manufacture
    *   Other label details
    *   Primary and secondary packaging materials for all finished products
    *   Storage conditions

13. **Records** may include:

    *   Written
    *   Electronic

14. **Deviations** may include:

    *   Quality
    *   Quantity
    *   Process
    *   Machinery

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates should know and understand:

1. What are Good Manufacturing Practices (GMPs), occupational health and safety regulations, environmental and other industry standards specific to agro processing operations.

2. What are the companies Standards Operating Procedures (SOPs) related to pasteurisation operations.

3. Why it is important to read and understand the production order and seek clarification when necessary.

4. How to check the availability of raw materials and equipment.

5. How to calculate batch size based on the production order and machine capacity.

6. How to calculate the amount of raw materials required for processing.

7. How to select and wear the most appropriate personal protective equipment.

8. What are the different types of equipment, machinery and tools used in the pasteurisation process and how to clean and sanitise them.

9. How to fit and adjust machine components and related attachments and adjust settings where necessary.

10. What are processing parameters and how to ensure that they are met.

11. How to carry out pre-start checks.

12. What are the different types of produce used in pasteurisation and how to obtain them from the store room and check its quality and dispose of those that do not conform to quality.

13. How to prepare produce according to GMPS and organisational requirements.

14. How to start and operate the pasteurisation process.

15. How to check equipment in order to identify variations in operating conditions and why and how to report these variations.

16. How to observe the pasteurisation process to ensure that specifications are met.

17. How to identify, rectify and/or report out-of-specification product/process outcomes to maintain the process within specification.

18. How to maintain cleanliness of the work area.

19. How to conduct work in accordance with environmental standards and organisational guidelines.

20. How to shut down the frying process in accordance with Standard Operating Procedures.

21. How to identify, report and fix minor faults in machines and why it is important to refer faults that are outside the scope of expertise and responsibility.

22. How to report discrepancies or concerns to supervisor.

23. How to conduct periodic maintenance on machines and equipment.

24. How to maintain records in accordance with organisational requirements.

EVIDENCE GUIDE

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Level 2   Glossary of Terms

Assessment methods

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

Assessors

The Assessor's role is determined 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

Organisation/Centre approved by the TVET Council to offer full National Vocational Qualifications.

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 they 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 pre-determined 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.

CVQ

Caribbean Vocational Qualifications (CVQs) 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.

CVQs 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 CVQ covers.

Level	
2	**Glossary of Terms**

CVQ Coordinator

Within each approved Centre offering CVQs, there is a centre contact who has overall responsibility for the operation and administration of the CVQ system.

Element

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

Explanation of CVQ Levels

CVQs cover five (5) levels of competence, from entry level staff at Level 1 through to senior management at Level 5

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 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 contribution 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 consistent quality of assessment and competence. They need to be competent to assess to national standards in the area under assessment.

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 what is required for the successful achievement of an element. They are descriptions of what you 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 you have all of the evidence about a candidate's performance. It also allows you to clarify situations.

Range statements

The range puts the element of competence into context. A range statement is a description of the range of situations to which an element and its performance criteria is intended to apply.

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 you 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 their work, or where the candidate needs to develop competence, before being judged competently, 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, you will be able to elicit evidence which will help you 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 and simulation (see note in glossary).

Underpinning knowledge

Underpinning knowledge indicates what knowledge is <u>essential</u> for a person to possess in order to successfully achieve an element and prove total competence.

Units

A unit of competence describes one or more activities which form a significant part of an individual's work. Units are accredited separately but in combination can make up a vocational qualification. There are three categories of units:

Mandatory units - 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.

Additional units - are units which the candidate can undertake but are not a requirement to achieve a qualification

Work-based projects

Work-based projects are a useful way for you to collect evidence to support any decision you make 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 observation.

A project often involves the identification of a solution to a specific problem identified by you 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)