



Packaging of Competency Standards for Vocational Qualifications

CCAGGB1005 CVQ Level 1 – Crop Production - Grow Box Operations

Unit Code	Unit Title	Mandatory/ Elective
AG01000	Maintain Safe And Effective Working Practices	Mandatory
AG00001	Transport Physical Resources within Work Area	Mandatory
AG00655	Prepare Site and Construct Grow Box	Mandatory
AG00656	Prepare Grow Box for Planting	Mandatory
AG00657	Plant Seedlings in Grow Box	Mandatory
AG00658	Water and Fertilize Plants in Grow Box	Mandatory
AG00653	Maintain Health of Crops	Mandatory
AG00654	Harvest and Prepare Crops	Mandatory
AGGCOR0031A	Plan and Organise Work	Mandatory
AGGCOR0101A	Carry Out Measurement and Calculations	Mandatory

AG01000

Maintain Safe and Effective Working Practices

Unit Descriptor:

This unit deals with the skills and knowledge required for maintaining health and safety and maintaining effective working relationships in all work contexts. It is also a requirement of all individuals that they are able to work effectively and efficiently with colleagues and supervisors.

ELEMENTS**PERFORMANCE CRITERIA**

Candidates must be able to:

- | | | | |
|---|---|-----|--|
| 1 | Maintain the safety of self and others when working | 1.1 | Use recommended personal protective equipment when working |
| | | 1.2 | Check all equipment and tools to ensure that they are in a good working condition prior to use |
| | | 1.3 | Handle and lift equipment according to industry procedures |
| | | 1.4 | Use equipment, tools and materials safely and according to manufacturer's instructions |
| | | 1.5 | Return equipment, tools and materials to storage facility after use |
| | | 1.6 | Keep work area tidy by following the organization's pre-determined clean up routine |
| | | 1.7 | Contain and dispose of waste according to organizational procedures |
| | | 1.8 | Work in a manner which minimises damage to the environment, self and others |
| 2 | Maintain effective working relationships | 2.1 | Communicate clearly and effectively with others |
| | | 2.2 | Co-operate with others in accordance with required procedures |
| | | 2.3 | Report problems to the appropriate personnel in a timely manner |

RANGE STATEMENT

Personal protective equipment includes:

- coveralls/coats
- boots/closed shoes
- gloves
- helmet
- goggles

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. what are the risks to health and safety and the measures to be taken to control those risks in your area of work
2. what personal protective gears and clothing should be used
3. what is the importance of using safe lifting techniques
4. what are the correct and safe ways to use materials, tools and equipment required for your work
5. what are the safe areas for storage of equipment, tools and materials
6. what are the safe disposal methods for waste
7. how to minimize environmental damage during work
8. how to deal with minor disruptions at work
9. why effective working relationships are important and how to work effectively with others
10. what are the reasons why effective communication is important
11. what are the limits of responsibility in the workplace

EVIDENCE GUIDE

(1) Critical Aspects of Evidence (lists what should be demonstrated by performance evidence)

Evidence should include the ability to:

- follow all safety regulations when working
- check all tools and equipment to ensure they are in good working condition
- use/operate tools, equipment and materials according to manufacturer's instructions
- store tools, equipment and materials according to organizational procedures
- perform all tasks according to organizational procedures
- dispose of waste according to organizational procedures
- report, communicate and cooperate with others according to organizational procedures

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. 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.

(3) Context of Assessment

This unit must be assessed on the job. The competencies covered by this unit would be demonstrated by an individual working as part of a team. The assessment environment should not disadvantage the candidate.

AG00001

Transport Physical Resources within Work Area

Unit Descriptor:

This unit deals with the skills and knowledge required for transporting physical resources within the work area. The candidate must be able to load and unload physical resources safely and efficiently, and transport the physical resources within the work area.

ELEMENTS**PERFORMANCE CRITERIA**

Candidates must be able to:

- | | | | |
|---|------------------------------------|-----|---|
| 1 | Load and unload physical resources | 1.1 | Wear appropriate personal protective equipment when transporting physical resources |
| | | 1.2 | Identify physical resources requiring transportation from supervisor's instructions |
| | | 1.3 | Undertake lifting and climbing operations according to industry procedures |
| | | 1.4 | Use lifting equipment for moving heavy and bulky items in accordance with supervisor's instructions and industry procedures |
| | | 1.5 | Position and secure physical resources in a manner which protects them from damage and contamination while preventing injury to self and others |
| | | 1.6 | Maintain and store lifting equipment according to organizational procedures |
| 2 | Transport physical resources | 2.1 | Operate transportation equipment in accordance with supervisor's instructions and industry requirements |
| | | 2.2 | Transport physical resources to the assigned location, using the appropriate manoeuvres to minimize damage |
| | | 2.3 | Monitor the condition of physical resources during transit |
| | | 2.4 | Maintain and store transportation equipment according to organizational procedures |

RANGE STATEMENT

Personal protective equipment includes:

- coveralls
- steel-tip boots
- gloves
- helmet
- goggles

Physical resources includes:

- products
- equipment
- materials
- liquids

UNDERPINNING KNOWLEDGE & SKILLS

Candidates must know:

1. how to identify appropriate products and equipment for transportation
2. what are the safe lifting techniques and how to correctly use lifting equipment
3. how to undertake safe lifting and climbing operations
4. what are the techniques for securing products and equipment in transit
5. what are the health and safety requirements of the task
6. what are the limits on responsibility when loading, unloading and transporting physical resources
7. when to use different lifting techniques

EVIDENCE GUIDE

(1) Critical Aspects of Evidence

Evidence should include the ability to:

- load and unload physical resources safely
- undertake lifting and climbing operations according to industry procedures
- protect physical resources from damage
- transport physical resources to the assigned locations
- maintain and store equipment according to organizational procedures
- operate lifting and transportation equipment according to supervisor's instructions and industry requirements

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. 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.

(3) Context of Assessment

This unit must be assessed on the job. The competencies covered by this unit would be demonstrated by an individual working as part of a team. The assessment environment should not disadvantage the candidate

AG00655

Prepare Site and Construct Grow Box

Unit Descriptor:

This unit deals with the skills and knowledge required for preparing the site and constructing a Grow Box. It describes the work expectations associated with clearing and levelling the site for the Grow box and the measuring and construction of the Grow Box frame.

ELEMENTS**PERFORMANCE CRITERIA**

Candidates must be able to:

- | | | | |
|---|---------------------------|-----|---|
| 1 | Prepare site for grow box | 1.1 | Wear suitable personal protective equipment while preparing the site and constructing a grow box |
| | | 1.2 | Select appropriate tools for preparing the site and constructing the grow box |
| | | 1.3 | Identify a suitable location for the grow box following supervisor's specifications |
| | | 1.4 | Clean the site following supervisor's instructions |
| | | 1.5 | Level the site according to supervisor's instructions |
| 2 | Construct grow box | 2.1 | Select suitable materials for the construction of the grow box according to supervisor's instructions |
| | | 2.2 | Measure and mark the area required for the grow box following the supervisor's specifications |
| | | 2.3 | Construct the grow box frame using the selected materials following supervisor's instructions |
| | | 2.4 | Clear and prepare the pathways between the grow box frames according to the supervisor's instructions |

RANGE STATEMENT

Personal protective equipment includes:

- coveralls
- steel-tip boots
- gloves
- helmet
- goggles

Materials include:

- concrete blocks
- plastering sand
- sharp sand
- cement
- composted material

Tools include:

- hoe
- shovel
- bucket
- trowel
- wheelbarrow
- rake

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. how to identify a suitable location for constructing a grow box
2. why is it important to level the surface in preparing the site for grow box construction
3. what materials and tools are required for constructing a grow box
4. why is it necessary to mark and measure the area for grow box construction
5. what is the significance of the dimensions of a grow box
6. what are the advantages of using the grow box method

EVIDENCE GUIDE

(1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- clean and level the site for location of the grow box
- measure and mark area for grow box
- construct grow box frame as directed by the supervisor
- prepare the pathways between the grow box frames

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. 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, manufacturer's specifications, codes, standards, manuals and reference materials.

(3) Context of Assessment

This unit can be assessed on the job, in a simulated situation or realistic work environment. The competencies covered by this unit would be demonstrated by an individual working as part of a team.

AG00656

Prepare Grow Box for Planting

Unit Descriptor:

This unit deals with the skills and knowledge required for preparing a Grow Box for planting. It describes the work expectations associated with preparing the growing medium and filling the grow box with the prepared growing medium.

ELEMENTS

Candidates must be able to:

PERFORMANCE CRITERIA

1	Prepare growing medium	1.1	Wear suitable personal protective equipment when preparing the grow box
		1.2	Select suitable materials for preparing the growing medium following supervisor's instructions
		1.3	Measure the materials according to the specifications given by the supervisor
		1.4	Mix the materials as instructed by supervisor
2	Fill grow box with growing medium	2.1	Apply appropriate chemical following supervisor's instructions
		2.2	Fill the grow box with the prepared growing medium to the required level
		2.3	Moisten the prepared growing medium as instructed by the supervisor
		2.4	Clear pathways of any excess materials and store as instructed by the supervisor

RANGE STATEMENT

Personal protective equipment includes:

- coveralls
- steel-tip boots
- gloves
- helmet
- goggles

Materials include:

- saw dust
- bagasse
- rice hulls
- pro-mix
- sharp sand
- plastering sand

Chemical includes:

- limestone
- pre-plant fertilizer
- soil insecticide
- soil fumigant

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. what different materials are used in the preparation of the growing medium
2. what procedures are used for collecting and measuring materials
3. what are the reasons for preparing the growing medium
4. how to prepare the growing medium
5. why is it important to moisten the growing medium

EVIDENCE GUIDE

(1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- select, measure and mix materials for preparing growing medium
- fill grow box with prepared growing medium to required level

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. 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, manufacturer's specifications, codes, standards, manuals and reference materials.

(3) Context of Assessment

This unit can be assessed on the job, in a simulated situation or realistic work environment. The competencies covered by this unit would be demonstrated by an individual working as part of a team.

AG00657

Plant Seedlings in Grow Box

Unit Descriptor:

This unit deals with the skills and knowledge required for planting seedlings in a Grow Box. It describes the work expectations associated with transplanting seedlings into a grow box and providing aftercare to transplanted seedlings.

ELEMENTS

Candidates must be able to:

PERFORMANCE CRITERIA

1	Transplant seedlings in grow box	1.1	Wear suitable personal protective equipment when planting seedlings
		1.2	Select appropriate tools and accessories for transplanting seedlings in the grow box
		1.3	Measure and line planting distance according to the number of seedlings to be grown
		1.4	Select healthy seedlings for transplanting following supervisor's instructions
		1.5	Handle seedlings with care in accordance with industry procedures
		1.6	Plant seedlings in the prepared growing medium as instructed by the supervisor
		1.7	Store extra seedlings in accordance to organizational procedures
2	Provide aftercare to transplanted seedlings in grow box	2.1	Water seedlings as instructed by the supervisor
		2.2	Treat plants according to supervisor's instructions
		2.3	Clean and store tools after use, according to organizational procedures

RANGE STATEMENT

Personal protective equipment includes:

- coveralls
- steel-tip boots
- gloves

Tools include:

- watering can
- hose
- hand trowel

- helmet
- goggles

Accessories include:

- twine
- measuring device
- marker/chalk
- pickets

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. what crops are suitable for growing in a grow box
2. what spacing requirements are required for planting crops
3. why is it necessary to plant crops in rows
4. how to select healthy seedlings
5. how to handle seedlings when transplanting into the grow box
6. how to transplant seedlings
7. how to use, maintain and store tools
8. how to provide aftercare for transplanted seedlings

EVIDENCE GUIDE

(1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- select and handle healthy seedlings
- plant seedlings in growing medium
- store extra seedlings according to organizational procedures
- treat planted seedlings according to supervisor's instructions
- clean and store tools according to organizational procedures

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. 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, manufacturer's specifications, codes, standards, manuals and reference materials.

(3) Context of Assessment

This unit can be assessed on the job, in a simulated situation or realistic work environment. The competencies covered by this unit would be demonstrated by an individual working as part of a team.

AG00658

Water and Fertilize Plants in Grow Box

Unit Descriptor:

This unit deals with the skills and knowledge required for watering and fertilizing plants in a Grow Box. The unit describes the work expectations associated with the techniques involved in watering and applying fertilizers to plants in a Grow Box.

ELEMENTS

Candidates must be able to:

PERFORMANCE CRITERIA

1	Water plants in grow box	1.1	Identify when plants need watering
		1.2	Check that there is a safe and reliable supply of water prior to watering plants
		1.3	Use suitable equipment when watering plants
2	Apply fertilizers	2.1	Follow the fertilizer schedule as instructed by the supervisor
		2.2	Wear suitable personal protective equipment when applying fertilizers
		2.3	Weigh specified quantity of fertilizer as instructed by the supervisor
		2.4	Prepare fertilizer mix according to supervisor's instructions
		2.5	Apply fertilizer mix following supervisor's instructions
		2.6	Store fertilizers according to organizational procedures

RANGE STATEMENT

Equipment includes:

- water can
- hose with nozzle
- sprinklers
- drip tubings

Personal protective equipment includes:

- coveralls
- steel-tip boots
- gloves
- helmet
- goggles

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. How to recognize when plants require watering
2. What equipment is used for watering plants
3. What is the importance of fertilizers
4. What are the different methods of applying fertilizers
5. How to handle, prepare and store fertilizers
6. What protective clothing should be used when handling fertilizers

EVIDENCE GUIDE

(1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- use suitable equipment for watering plants
- prepare fertilizer mix as directed
- apply fertilizer according to schedule
- store fertilizers according to organizational procedures

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. 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, manufacturer's specifications, codes, standards, manuals and reference materials.

(3) Context of Assessment

This unit can be assessed on the job, in a simulated situation or realistic work environment. The competencies covered by this unit would be demonstrated by an individual working as part of a team.

AG00653

Maintain Health of Crops

Unit Descriptor:

This unit deals with the skills and knowledge required for maintaining the health of crops. The unit describes the work expectations associated with monitoring the health of crops and applying chemicals for pest and disease control.

ELEMENTS**PERFORMANCE CRITERIA**

Candidates must be able to:

- | | | | |
|---|--|------|--|
| 1 | Monitor health of crops | 1.1 | Monitor the crops effectively checking for signs of poor health and growth while following supervisor's instructions |
| | | 1.2 | Identify plants with pest/disease according to the visible signs |
| | | 1.3 | Collect sample of plant affected with pest/disease, following organizational procedures and submit to supervisor |
| | | 1.4 | Identify and remove unwanted vegetation safely according to organizational procedures |
| 2 | Apply chemicals for pest and disease control | 2.1 | Wear suitable personal protective equipment when applying chemicals |
| | | 2.2 | Select chemicals and application equipment according to the supervisor's instructions |
| | | 2.3 | Prepare chemicals according to manufacturer's and supervisor's instructions |
| | | 2.4 | Apply chemicals according to supervisor's instructions |
| | | 2.5 | Dispose of empty chemical containers according to industry procedures |
| | | 2.6 | Treat spilt chemicals according to the supervisor's instructions |
| | | 2.7 | Store chemicals according to organizational procedures |
| | | 2.8 | Maintain application equipment in a safe and effective condition in accordance with manufacturer's instructions |
| | | 2.9 | Remove chemical residue from clothing and body following industry procedures |
| | | 2.10 | Report problems immediately to the supervisor |

RANGE STATEMENT

Crops include:

- fruits
- vegetables
- herbs
- medicinal plants

Signs include:

- wilting
- damaged plant parts
- discolouration
- deformed leaves

Personal protective equipment includes:

- coveralls
- plastic apron
- tall boots
- gloves
- helmet
- goggles
- respirators

Chemicals include:

- insecticides
- fungicides
- micro nutrient mix

Application equipment includes:

- spray can
- mist blower
- watering can

Unwanted vegetation includes:

- weeds
- excessive growths

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. What are the reasons for monitoring crops
2. What are the indications of healthy crop growth
3. How to identify the presence of common types of pests, weeds and diseases
4. What protective gear should be used for chemical application
5. How to handle, prepare and use chemicals safely
6. How to identify and remove unwanted vegetation

EVIDENCE GUIDE

(1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- identify plants with signs of disease
- prepare and apply chemicals following manufacturer's and supervisor's instructions
- store chemicals according to organizational procedures
- deal with spilt chemicals as instructed by the supervisor
- maintain tools and equipment in accordance with manufacturer's instructions
- remove unwanted vegetation

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. 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, manufacturer's specifications, codes, standards, manuals and reference materials.

(3) Context of Assessment

This unit can be assessed on the job, in a simulated situation or realistic work environment. The competencies covered by this unit would be demonstrated by an individual working as part of a team.

AG00654

Harvest and Prepare Crops

Unit Descriptor:

This unit deals with the skills and knowledge required for assisting with the harvesting and preparing of crops. The unit describes the work expectations associated with harvesting crops as well as the preparation of the harvested crops. Preparation includes handling, cleaning, sorting, grading, packaging and storing.

ELEMENTS**PERFORMANCE CRITERIA**

Candidates must be able to:

- | | | | |
|---|-------------------------|-----|--|
| 1 | Harvest crops | 1.1 | Follow the industry's agricultural practices and procedures to maintain food safety standards |
| | | 1.2 | Use harvesting methods in accordance with supervisor's instructions |
| | | 1.3 | Handle harvested crops in a way which minimizes damage |
| | | 1.4 | Check harvested crops to ensure that they are free from pests and diseases |
| | | 1.5 | Place crops in the appropriate size of crates depending on weight and type of crops |
| | | 1.6 | Store crates/receptacles in an appropriate area to protect crops from elements of the weather |
| | | 1.7 | Report any problems which arise during harvesting promptly to the supervisor |
| | | 1.8 | Dispose of waste according to established workplace procedures instructions |
| 2 | Prepare harvested crops | 2.1 | Check the condition of the harvested crop and identify any variations in accordance with organizational guidelines |
| | | 2.2 | Clean crops according to organizational procedures |
| | | 2.3 | Sort, grade and package crops according to supervisor's instructions |
| | | 2.4 | Store crops as instructed by the supervisor |

RANGE STATEMENT

Crops include:

- fruits
- vegetables
- herbs
- medicinal plants

Condition includes:

- deformities
- bruises
- dirt/debris

Area includes:

- cool
- dry

UNDERPINNING KNOWLEDGE AND SKILLS

Candidates must know:

1. How to use and maintain tools and equipment properly
2. How to handle crops in order to minimize damage
3. What are the appropriate methods for harvesting crops
4. How is the quality of the crops maintained during harvesting operations
5. What are the correct methods for disposing waste materials
6. What are the reasons for preparing the harvested crop and how is this done

EVIDENCE GUIDE

(1) Critical Aspects of Evidence

Evidence should include a demonstrated ability to:

- maintain food safety standards
- use harvesting methods as directed by the supervisor
- check harvested crops for pest and disease
- check harvested crops against specifications
- clean crops according to organizational procedures
- sort, grade, package and store crops as directed by the supervisor

(2) Method of Assessment

Assessors should gather a range of evidence that is valid, sufficient and authentic. Evidence should be gathered through a variety of ways including direct observation and oral questioning. 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, manufacturer's specifications, codes, standards, manuals and reference materials.

(3) Context of Assessment

This unit can be assessed on the job, in a simulated situation or realistic work environment. The competencies covered by this unit would be demonstrated by an individual working as part of a team.

**AGGCOR0031A: Plan and organise work**

Competency Descriptor:

This unit deals with the skills and knowledge required to keep the workplace place including workshops, tool sheds and planted areas tidy and safely maintained. This unit describes the daily planning that is required of workers in regard to work duties. It includes the organisation of tools and equipment and the recording of information about the job at hand.

Competency Field: Agriculture

ELEMENT OF COMPETENCY PERFORMANCE CRITERIA

1. Communicate verbally within the workplace	1.1	Interpretation is consistent with the schedule and tasks defined.
	1.2	A number of work activities are integrated.
	1.3	Priorities are established consistent with workplace requirements.
2. Plan and manage time	2.1	Arrival at the workplace at the allocated time in punctual.
	2.2	Workplace activities, allocated tasks and workplace priorities are discussed with the supervisor.
	2.3	A daily schedule for completing activities and allocated tasks is drawn up including priorities, allocated start times, estimation of completion times and materials, equipment and assistance required for completion.
	2.4	Work time and personal time are allocated to appropriate work and study situations.
3. Respond to problems as they arise	3.1	Priorities are established consistent with workplace requirements.
	3.2	Response maintains a quality outcome, minimizes impact on work schedules and reflects accurate knowledge of products and processes used in the workplace.



RANGE STATEMENT

The Range Statement provides advice to interpret the scope and context of this unit of competency, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit.

Work activities may include:

- daily routines, periodic routines, ad hoc activities.

Problems which may arise include:

- colleague absence
- personal illness
- emergency situations
- natural disasters

Legislation, codes and national standards relevant to the workplace may include:

- Labour laws of Jamaica.
- Pesticide control authority regulations.
- Occupational Health & Safety (OHS).
- Hygiene requirements.
- First Aid regulations/requirements.

EVIDENCE GUIDE

Competency is to be demonstrated by the ability to plan and organize assigned tasks.

(1) Critical Aspects of Evidence

- evidence should include a demonstrated ability to consistently follow supervisor's instructions
- plan and organise assigned tasks to the level acceptable by the enterprise
- report and record within established routines using methods and procedures that are predictable

(2) Pre-requisite Relationship of Units

- AGGCOR0001A Meet industry requirement
- AGGCOR0021A Observe workplace health and safety requirement
- AGGCOR0051A Follow in emergency

**(3) Underpinning Knowledge and Skills**Knowledge

Knowledge of:

- products and processes used in the workplace
- time management skills
- enterprise's policy for using and storing tools
- verbal and non-verbal communication skills
- how to complete forms
- basic report writing
- problem solving skills
- estimate duration of time to perform assigned tasks

Skills

The ability to:

- interpret work schedules
- organize materials and equipment
- respond to problems as they arise
- prepare work plan
- follow instructions

(4) Resource Implications

- written or verbal instructions
- work activity within worker's span of responsibility
- relevant tools and equipments

(4) Method of Assessment

This unit of competency may be assessed in conjunction with other units.

To achieve consistency of performance, evidence should be collected over a set period of time, which is sufficient to include dealings with an appropriate range and under a variety of situations.

(6) Context of Assessment

This unit must be assessed through practical demonstration on-the-job or in a simulated farm/nursery/agriculture-merchandising environment.

The underpinning knowledge may be assessed off-the-job with the use of written or verbal items inclusive of short answer, extended essay items project or portfolio.

**CRITICAL EMPLOYABILITY SKILLS**

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
<ul style="list-style-type: none"> Carries out established processes Makes judgement of quality using given criteria 	<ul style="list-style-type: none"> Manages process Selects the criteria for the evaluation process 	<ul style="list-style-type: none"> Establishes principles and procedures Evaluates and reshapes process Establishes criteria for evaluation

Collecting, analysing and organising ideas and information	Level 1	
Communicating ideas and information	Level 1	
Planning and organising activities	Level 1	
Working with others and in teams	Level 1	
Use mathematical ideas & techniques	Level 1	
Solve problems	Level 1	
Using technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

**AGGCOR0101A: Carry out measurement and calculations**

Competency Descriptor:

This unit deals with the skills and knowledge required to perform related calculations and applies to all individuals working in the agriculture industry.

Competency Field: Agriculture

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Apply the four basic rules of calculation	1.1	Simple calculations are correctly performed using the four basic arithmetic rules- addition, subtraction, multiplication and division.
		1.2	An understanding of the concept of angles is correctly demonstrated.
		1.3	Simple calculation involving time, volume and length are correctly calculated.
2.	Perform basic calculations involving fractions and decimals	2.1	Simple calculations are performed involving fractions and decimals.
3.	Perform basic calculations involving percentages	3.1	Simple calculations involving profit and loss and discounts are correctly performed.
4.	Perform basic calculations involving proportions	4.1	Simple calculations involving ratios are correctly performed.
5.	Use measurement instruments	5.1	Measurement taken to 100 % accuracy.
		5.2	Used measurement instruments according to manufacturer's/supervisor's instructions
		5.3	Observed indicator lines and/or manufacturer's and supervisor's instructions when using pre-measured products.



RANGE STATEMENT

Calculations may be mental/using pen and paper/calculator/cash register. All problems should have appropriate applications to the agriculture industry and relate to the normal operation in this environment.

Calculations may include:

- ratio and proportion
- percentages – profit and loss, discounts
- fractions and decimals
- addition and subtraction eg. stock count
- time intervals

EVIDENCE GUIDE

Competency is to be demonstrated by individual computations in accordance with the performance criteria and as related to the work environment.

(1) Critical Aspects of Evidence

This unit could be assessed alone or in conjunction with any other units addressing the safety, materials handling, recording and reporting; associated with the computations being performed or other units requiring the exercise of the skills and knowledge covered by this unit.

During assessment the individual will:

- take responsibility for the quality of their own work
- perform computations in accordance with standard principles
- perform computations accurately
- use accepted mathematical procedures, practices, processes and workplace procedures

(2) Pre-requisite Relationship of Units

- Nil

**(3) Underpinning Knowledge and Skills**Knowledge

Knowledge of:

- numbers and basic arithmetic operations
- percentages
- fractions and decimals
- ratio and proportion
- costing
- interpretation of measurement and calculations
- data relative to the agriculture industry
- basic measurement of angles
- basic stock valuation

Skills

The ability to:

- measure using specified instruments
- interpret measurements and calculations
- perform work related calculations
- communicate effectively
- calculate mentally
- use calculate and/or cash register
- count stock

(4) Resource Implications

The candidate will be provided with:

- all tools, equipment, materials and documentation required where necessary
- any relevant workplace procedures
- any relevant product, manufacturing specifications and or prices
- any relevant codes, standards, manuals and reference materials or tables

(5) Method of Assessment

The candidate will be required to orally, or in writing or by any other methods of communication:

- Answer questions put by the assessor.

Assessor must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge.

(6) Context of Assessment

This unit may be assessed on the job, off the job or a combination of both. The competencies covered by this unit should be demonstrated by an individual working alone. The assessment environment should not disadvantage the candidate.

**CRITICAL EMPLOYABILITY SKILLS**

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
<ul style="list-style-type: none"> Carries out established processes Makes judgement of quality using given criteria 	<ul style="list-style-type: none"> Manages process Selects the criteria for the evaluation process 	<ul style="list-style-type: none"> Establishes principles and procedures Evaluates and reshapes process Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.