

HARVEST THE CROP

UNIT CODE: AGR/OS/EXT/CR/03/4

UNIT DESCRIPTION

This unit specifies the competencies required to harvest a crop. It includes preparing to harvest, harvesting and post-harvesting operations, and evaluation of crop produce, forage conservation, waste management and documentation.

ELEMENTS AND PERFORMANCE CRITERIA

| ELEMENT These describe the key outcomes which make up workplace function (to be stated in active voice) | PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements (to be stated in passive voice) <i>Bold and italicized terms are elaborated in the Range</i> |
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| 1. Prepare to harvest the crop | 1.1 Maturity of the crop is determined based on the <i>maturity indices</i> of the crop 1.2 <i>Tools, equipment, materials and machines</i> are assembled according to the crop 1.3 Store place is prepared according to <i>food safety practices</i> . |
| 2. Harvest the crop | 2.1 <i>Harvesting</i> is done timely according to the crop type. 2.2 Harvested produce is packed well based on the crop type 2.3 The packed produce is assembled at the collection point or the store according to the crop type and work policy |
| 3. Carry out post-harvesting operations | 3.1 Produce is cleaned according to GAP. 3.2 Sorting of produce is carried out depending on the crop type. 3.3 Grading is done according to the crop's <i>grading criteria</i> . 3.4 Produce is weighed and packaged according to the type of crop |

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| | <p>3.5 Produce is treated for preservation based on GAP</p> <p>3.6 Produce is correctly stored depending on the type of the produce and stores management procedure.</p> |
| 4. Evaluate crop produce | <p>4.1 The quality of the crop produce is evaluated according to the <i>crop quality parameters</i></p> <p>4.2 The quantity of the crop produce is evaluated based on the crop yield parameters</p> |
| 5. Conserve forage | <p>5.1 Forage conservation method is chosen according to the fodder available and farm policy</p> <p>5.2 Materials are prepared for preservation depending on the method chosen</p> <p>5.3 Tools/equipment/machines are identified according to method chosen</p> <p>5.4 The forage is properly preserved depending on the method chosen</p> |
| 6. Complete crop harvesting | <p>6.1 Waste and recyclable materials are collected and sorted according to <i>workplace policy</i></p> <p>6.2 Tools are cleaned according to the manufacturer's instructions</p> <p>6.3 Equipment and machines are maintained according to workplace procedures</p> <p>6.4 Tools/equipment/machines are stored according to the manufacturer's manual and workplace policy</p> <p>6.5 Proper records of the harvesting activities are kept as per the work place policy.</p> <p>6.6 Unused materials are stored as per the manufacturer's instructions and workplace policy.</p> |

RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

| VARIABLE | RANGE (May include but are not limited to :) |
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| Tool, equipment, materials and machines | <ul style="list-style-type: none">• Tools:<ul style="list-style-type: none">- Fork- Jembe- Hoe- Knives- Panga- Sickle- Wheelbarrow• Equipment<ul style="list-style-type: none">- Weighing Balances• Materials:<ul style="list-style-type: none">- Baskets- Labeled Crates/cartons- Sacks/bags- Twines- Stationeries- Litter bins- Grading tables• Machinery:<ul style="list-style-type: none">- Baler- Combine harvesters- Forage harvester- Mowers- Potato harvesters- Tractor- Air conditioned vans |
| Maturity indices | <ul style="list-style-type: none">• Change of colour• Size of the produce• Hardness of the fruit or tuber• Moisture content |

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| Food safety practice | <ul style="list-style-type: none"> • Dampness • Aeration • Contamination • Physical injuries to the produce |
| Harvesting | <ul style="list-style-type: none"> • Picking • Plucking • Digging out • Threshing • Mowing • Combine harvesting • Cutting |
| Good Agricultural Practices (GAP) | <ul style="list-style-type: none"> • Correct tools • Clean • Correct use of tools and equipment • Winnowing • Seed dressing • Chemical treatment • Safely measures applied |
| Grading criteria | <ul style="list-style-type: none"> • Size of the produce • Colour • Type of the produce • Shape • Breakages |
| Crop quality parameters | <ul style="list-style-type: none"> • Colour • Taste • Size • Texture • Shape • Moisture content • Presence of pests and disease causing organisms |
| Forage conservation method | <ul style="list-style-type: none"> • Silage making • Hay making • Standing hay |

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| Workplace policy | <ul style="list-style-type: none"> • Stores management policy • Produce handling and transportation • Harvesting waste management policy • Produce sorting and grading policy |
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REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

Required Skills

The individual needs to demonstrate the following skills:

- Materials, tools, equipment and machines Handling
- Measurement
- Perceptual (visual, tactile)
- Post-harvest crop handling
- Grading and sorting
- Recording
- Tools, equipment and machines servicing and maintenance
- Use of personal protective equipment

Required Knowledge

The individual needs to demonstrate knowledge of:

- Basic machine operations
- Tools, equipment and materials used in harvesting
- Crop maturity indices
- Post-harvest crop pests and diseases and their management
- Harvesting methods
- Health, hygiene, safety and environment
- Post-harvest crop handling practices
- Stores management
- Farm Records

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

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| 1. Critical Aspects of Competency | <p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Gathered materials/tools/equipment/machines correctly 1.2 Observed laid down environmental workplace policy well 1.3 Keenly Observed safety measures 1.4 Timely determined the crop harvesting time and stage 1.5 Packed harvested crop properly 1.6 Stored harvested produce properly 1.7 Preserved forage correctly 1.8 Maintained tools, equipment and machines correctly 1.9 Handled crop residues well 1.10 Handled wastes safely 1.11 Documented crop harvesting activities correctly |
| 2. Resource Implications | <p>The following resources must be provided:</p> <ul style="list-style-type: none"> 2.1 Assessment location- functional farm with crop that are ready for harvesting, harvesting tools, equipment and machineries as well as stores for the produce 2.2 Personal protective equipment 2.3 packing materials, |
| 3. Methods of Assessment | <p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Observation 3.2 Oral interview 3.3 Written exam 3.4 Third party report |
| 4. Context of Assessment | <p>Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment.</p> |
| 5. Guidance information for assessment | <p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p> |