

## PRODUCE LIVESTOCK FORAGE

**UNIT CODE: 0721 351 05A**

### UNIT DESCRIPTION

This unit covers the competencies required in produce livestock forage.

It involves prepare forage land, establish forage crops, manage forage crops, utilize forage crops and conserve forage crops.

### ELEMENT AND PERFORMANCE CRITERIA

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
These describe the key outcomes which make up workplace function	These are assessable statements which specify the required level of performance for each of the elements. <i><b>Bold and italicized terms are elaborated in the Range</b></i>
1. Prepare forage land	1.1 Personal Protective Equipment (PPEs) are worn as per work requirement 1.2 <b>Land preparation tools and equipment</b> are assembled as per work requirement 1.3 <b>Forage</b> land is cleared from unwanted vegetation and debris as per <b>Good Agricultural Practices (GAPs)</b> 1.4 Forage land is tilled as per GAPs 1.5 Waste is managed according to environmental protection regulations
2. Establish forage crops	2.1 Personal Protective Equipment (PPEs) are worn as per work requirement 2.2 Tools and equipment are assembled as per work requirement 2.3 <b>Forage propagation materials</b> are sourced as per Forage and Pastures Production Manual (FPPM) 2.4 Forage propagation materials are established as per GAPs 2.5 Forage establishment records are maintained as per workplace requirement 2.6 Waste is managed according to environmental protection regulations
3. Manage forage crops	3.1 Personal Protective Equipment (PPEs) are worn as per work requirement 3.2 Tools and equipment are assembled as per work requirement

	<p>3.3 Forage pests and diseases are controlled as per GAPs</p> <p>3.4 Forage weeds are controlled as per GAPs</p> <p>3.5 Fertilizers are applied as per GAPs</p> <p>3.6 Forage is watered as per GAPs</p> <p>3.7 Forage management records are maintained as per workplace requirement</p> <p>3.8 Waste is managed according to environmental protection regulations</p>
4. Utilize forage crops	<p>4.1 Personal Protective Equipment (PPEs) are worn as per work requirement</p> <p>4.2 Forage harvesting tools and equipment are assembled as per work requirement</p> <p>4.3 Forage harvesting stage is determined as per FPPM</p> <p>4.4 Forages are harvested as per FPPM</p> <p>4.5 Forage production records are maintained as per workplace requirements</p> <p>4.6 Waste is managed according to environmental protection regulations</p>
5. Conserve forage crops	<p>5.1 Personal Protective Equipment (PPEs) are worn as per work requirement</p> <p>5.2 <b>Forage conservation tools</b> and equipment are assembled as per work requirement</p> <p>5.3 <b>Forage storage facilities</b> are prepared as per workplace requirement</p> <p>5.4 Forage materials for conservation are gathered as per work requirement</p> <p>5.5 Forage conservation methods are applied as per FPPM</p> <p>5.6 Forage conservation records are maintained as per workplace requirement</p> <p>5.7 Waste is managed according to environmental protection regulations</p>

## RANGE

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

Variable	Range
1. Land preparation tools and equipment includes but not limited to:	<ul style="list-style-type: none"> <li>• Jembes /hoe</li> <li>• Slashers</li> <li>• Mowers</li> <li>• Ploughs</li> <li>• Harrows</li> </ul>
2. Forage propagation materials includes but not limited to:	<ul style="list-style-type: none"> <li>• cuttings</li> <li>• seeds</li> <li>• Seeds</li> <li>• Seedlings</li> <li>• Splits</li> <li>• Crowns</li> <li>• Slips</li> <li>• Cuttings</li> <li>• Suckers</li> <li>• Tissue culture</li> </ul>
3. Forage conservation tools includes but not limited to:	<ul style="list-style-type: none"> <li>• balers</li> <li>• forage harvesters</li> <li>• mowers</li> <li>• Manual balers</li> </ul>
4. Good Agricultural Practices (GAP) includes but not limited to:	<ul style="list-style-type: none"> <li>• Field hygiene</li> <li>• Selection of clean planting materials</li> <li>• Safe use of agro-chemicals and maximum Residual Levels of agro-chemicals used</li> <li>• Environmental sustainability</li> <li>• Integrated pest management (IPM)</li> <li>• Minimum, tillage</li> </ul>
5. Forages includes but not limited to:	<ul style="list-style-type: none"> <li>• Nandi setaria</li> <li>• Star grass</li> <li>• Guinea grass</li> <li>• Rye grass</li> <li>• Kale</li> <li>• Sweet potato vine</li> <li>• Lucerne</li> <li>• Desmodium</li> <li>• Clovers</li> </ul>

	<ul style="list-style-type: none"> <li>• Napier grass</li> <li>• Bana grass.</li> <li>• Sesbania</li> <li>• Alfalfa</li> <li>• Rhodes</li> <li>• Leucaena</li> <li>• Oats</li> </ul>
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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:

- Tilling
- Measuring
- Leveling
- Gaping
- Spraying
- Pests, diseases and nutrients deficiency scouting
- Equipment calibration
- Technical Report writing
- Produce handling
- Soil sampling
- Observation
- Negotiation
- Digital literacy

### Required Knowledge

The individual needs to demonstrate knowledge of:

- Sources of quality water
- Agro- Ecological Zonation
- Forage establishment and management
- Types of forages
- Physiology of different forage crops
- Types of tools and equipment used in production of forages
- Soil sampling and testing
- Soil conservation
- Phyto-sanitary requirements
- Good Agricultural Practices
- Sources of quality planting materials for forages
- Husbandry practices in forage production
- Maturity indices in forage crops

- Harvesting and Post Harvesting Handling of forages
- Accounting principles
- Production records and reports
- Waste Management
- Occupational Safety and Health Procedures
- General management of forage production farm

## EVIDENCE GUIDE

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

1. Critical aspects of Competency	1.1 Assembled land preparation tools and equipment as per work requirements 1.2 Cleared forage land from unwanted debris and vegetation as per GAPs 1.3 Forage propagation materials are sourced as per Forage and Pastures Production Manual (FPPM) 1.4 Sourced forage propagation materials as per FPPM 1.5 Established Forage propagation materials as per GAPs 1.6 Forage pests and diseases are controlled as per GAPs 1.7 Controlled Forage pests and diseases as per GAPs 1.8 Assembled Forage harvesting tools and equipment per work requirement 1.9 determined Forage harvesting stage as per FPPM 1.10 harvested Forages are as per FPPM 1.11 Applied Forage conservation methods as per FPPM
2. Resource Implications	The following resources should be provided: 2.1 Appropriately simulated environment where assessment can take place. 2.2 Access to relevant assessment environments. 2.3 Resources relevant to the proposed assessment activity or tasks.
3. Methods of Assessment	3.1 Practical 3.2 Third party report 3.3 Projects

	3.4 Portfolio of evidence 3.5 Written tests 3.6 Oral questions
4. Context of Assessment	Competency may be assessed: 4.1 Workplace 4.2 Simulated work environment
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.