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	Assessment requires evidence that the candidate: 1.1 Carried out food safety measures to produce forage 1.2 Prepared planting land to a level suitable to the planting material 1.3 Established forage suitable for the AE zone 1.4 Managed and harvested forage according to guidelines in the livestock production manual 1.5 Conserved and stored fodder using correct method and procedures 1.6 Observed occupational safety and health measures in the working environment 1.7 Observed laid down environmental protection measures at the work place 1.8 Documented and maintained dairy forage production and food safety records
2. Resource implication	The following resources should be provided: 2.1 Tools, equipment and machineries 2.2 Materials and supplies
3. Method of assessment	Competency in this unit may be assessed through: 3.1 Practical 3.2 project 3.3 Written tests 3.4 Oral questioning
4. Context of assessment	4.1 Competency elements must be assessed in a safe working environment 4.2 Assessment may be conducted in a workplace or simulated environment
5. Guidance information for	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

assessment	

MANAGE DAIRY CATTLE

UNIT CODE: 0811 351 09A

TVET CDACC UNIT CODE: AGR/CU/AP/CR/02/4/MA

UNIT DESCRIPTION

This unit specifies competencies required to manage dairy cattle which involves construction dairy cattle structures, feeding of dairy cattle, breeding of dairy cattle, managing of dairy calf, production of clean milk, performing dairy cattle routine management practices and marketing of dairy products

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace function.	**PERFORMANCE CRITERIA** These are assessable statements which specify the required level of performance for each of the elements. ***Bold and italicized terms are elaborated in the Range.***
1. Construct dairy cattle structures	1.1 Tools, equipment and materials are assembled as per work requirements 1.2 Site of ***dairy cattle structures*** is selected based on LPM 1.3 Dairy cattle structures are designed according to Livestock Production Manual (LPM) 1.4 Dairy cattle structures are constructed based on livestock production manual 1.5 Dairy cattle structures are maintained as per workplace procedures 1.6 Maintenance records are kept as per workplace requirements 1.7 Waste is managed according to environmental protection regulations
2. Feed dairy cattle	2.1 Tools, equipment and materials are assembled as per work requirements 2.2 ***Dairy cattle feeds*** are identified as per the nutritional requirements 2.3 Dairy cattle are grouped based on their nutritional requirements 2.4 Dairy cattle feeding regime is determined based on LPM

	2.5 Dairy cattle are fed based on their nutritional requirements in accordance with LPM 2.6 Feed intake is evaluated as per the LPM 2.7 Feed conversion efficiency is evaluated based on productivity 2.8 Dairy cattle feeding record is generated as per the workplace procedures 2.9 Waste is managed according to environmental protection regulations
3. Breed dairy cattle	3.1 Breeding management tools, equipment and materials are assembled in accordance with LPM 3.2 ***Dairy Cattle breeds*** are identified based on LPM 3.3 Dairy Cattle breeds are selected based on traits of economic importance and farmer requirements 3.4 Dairy cattle on heat are detected based on LPM 3.5 Flushing is carried out as per LPM 3.6 Service is performed based on the ***breeding method and technologies*** as per the LPM 3.7 Gestation is managed as per the LPM 3.8 In-calf dairy cows are cared for based on the LPM 3.9 Steaming-up is carried out based on LPM 3.10 Parturition Breeding records are prepared as per work procedures
4. Manage dairy calf	4.1 Calf management tools, equipment and materials are assembled as per the LPM 4.2 Calf pens are prepared as per LPM 4.3 Calf is handled at birth as per LPM 4.4 Calf is fed colostrum according to the LPM 4.5 Orphaned calves are fostered according to LPM 4.6 Artificial colostrum is prepared as per LPM 4.7 Calf is identified using suitable method in accordance with LPM, animal welfare regulations and work place policy 4.8 Calf is housed based on production system, prevailing climatic

	conditions and age within LPM standards 4.9 Calf is introduced to roughage feeding in accordance with LPM 4.10 Calf is disbudded and extra mammary teats removed in accordance with animal welfare regulations and work place policy 4.11 Calf is weighed in accordance with LPM instructions and work place policy 4.12 Calf growth rate is monitored as per LPM 4.13 Calf is weaned in accordance with the LPM 4.14 Waste is managed and disposed based on environmental protection regulations
5. Produce clean milk	5.1 ***Milking materials and equipment*** are assembled based on the milking technique selected 5.2 Milking cows are assembled in accordance with the LPM 5.3 Milking cow is restrained in accordance with the LPM 5.4 Udder is cleaned and pre-dipped according to LPM 5.5 ***Mastitis test*** is carried out based LPM 5.6 Milk let down is stimulated based on selected ***milking technique*** 5.7 Milking is carried out based on Essentials of Clean Milk Production Standard. 5.8 Udder quarters are disinfected as per the LPM 5.9 Milked cow is released as per workplace procedures 5.10 Milk is sieved and weighed according to the workplace procedures 5.11 Milk is stored and cooled in accordance with LPM 5.12 Milk production record is maintained based on the workplace procedures 5.13 Milking equipment are cleaned as per workplace procedures 5.14 Milking parlour is cleaned as per workplace procedures 5.15 Re-usable materials are stored as per manufactures

	instruction and workplace policy 5.16 Waste is managed and disposed with due regard to environment protection regulations
6. Perform dairy cattle routine management practices	6.1 Dairy ***Cattle identification method*** is selected based on GAPs 6.2 Cattle is dehorned or disbudded based on GAPs 6.3 Cattle overgrown hooves are trimmed based on GAPs 6.4 Dairy cattle are culled based on workplace policy 6.5 Internal and external parasites are controlled based on LPM and GAPs 6.6 Vaccination is performed as per workplace policy, manufacturer's instructions and LPM 6.7 Cattle isolation and quarantine is carried out to control notifiable diseases based on GAPs 6.8 Dairy cattle are provided with clean water ad-libitum as per LPM
7. Market dairy cattle products	7.1 Market survey is conducted based on Standard Survey guidelines 7.2 ***Dairy Cattle products*** are sold based on market demands 7.3 Dairy Cattle is transported to the market based on Animal Welfare Act, 7.4 Marketing records are maintained based on the organization's record management guidelines

RANGE OF VARIABLES

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.

RANGE	VARIABLE
1. Dairy cattle structures may include but not limited to:	• Crushes • Milking parlour • Barn

RANGE	VARIABLE
	• Feeding facility • Cattle shed • Cattle dips • Feed storage facility • Farm office
2. Dairy cattle feeds may include but not limited to:	• Carbohydrates • Proteins • Vitamins • Minerals • Fats/ lipids • Water
3. Dairy Cattle breeds method may include but not limited to:	• Friesian • Aryshire • Sahiwal • Jersey • Brown Swiss
4. Breeding method and technologies may include but not limited to:	• Artificial insemination • Natural method • Cross breeding • Pure breeding • Inbreeding • Embryo transfer • Surrogate • Signs of heat • Estrus synchronization
5. Milking materials and equipment may include but not limited to:	• Animal Restraint • Cleaning • Cups • Herd Test Buckets • Thermometer

RANGE	VARIABLE
	• Separator
6. Mastitis test may include but not limited to:	• CMT • Strip cup
7. Milking technique may include but not limited to:	• Hand milking • Milking machine
8. Cattle identification method may include but not limited to:	• Ear tagging • Ear notching • Branding • Neck chains • Straps with numbers • Ear tattooing
9. Dairy Cattle products may include but not limited to:	• Milk • Hides • Hooves • Cream. • Butter. • Fermented. • Yogurt. • Cheese

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:

- Communication
- Analytical
- Evaluation
- Management