	Curriculum Document	
Curriculum Code	**Curriculum Title**	**Logo**
612102001	**Dairy Unit Manager**	

	Name	Email	Phone	Logo
Development Quality Partner	**AgriSETA**	**info@agriseta.co.za**	**(012) 301 5600**	

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2. 612102001-KM-02, Dairy calf and heifer rearing, feeding and health care, NQF Level 3, Credits 8 17

3. 612102001-KM-03, Dairy animal health care, NQF Level 2, Credits 8 22

4. 612102001-KM-04, Dairy animal production, NQF Level 3, Credits 8 26

5. 612102001-KM-05, Dairy livestock feeding, NQF Level 3, Credits 8 29

6. 612102001-KM-06, Milk harvesting and in-parlour processing, NQF Level 3, Credits 10 32

7. 612102001-KM-07, Team Leadership, NQF Level 4, Credits 8 37

8. 612102001-KM-08, Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 8 41

9. 612102001-KM-09, Dairy farm production management, NQF Level 5, Credits 10 45

10. 612102001-KM-10, Farm business management, NQF Level 5, Credits 10 49

11. 612102001-KM-11, Pasture management, NQF Level 5, Credits 12 53

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List of Practical Skill Module Specifications 56

1. 612102001-PM-01, Perform calf and heifer rearing, production and health care practices, NQF Level 3, Credits 9 57

2. 612102001-PM-02, Perform animal production and health care practices of cows and bulls, NQF Level 3, Credits 9 62

3. 612102001-PM-03, Prepare feed and feed cows in milk, NQF Level 3, Credits 9 66

4. 612102001-PM-04, Harvest milk, attend to milk parlour hygiene and equipment, NQF Level 3, Credits 9 69

5. 612102001-PM-05, Attend to dairy parlour water treatment and waste water, NQF Level 3, Credits 4 74

6. 612102001-PM-06, Initiate and maintain first line discipline, NQF Level 4, Credits 7 . 76

7. 612102001-PM-07, Lead and direct work teams, NQF Level 4, Credits 7 78

8. 612102001-PM-08, Keep dairy farm records, NQF Level 4, Credits 7 82

9. 612102001-PM-09, Attend to concepts related to the dairy code of good practise for milk producers, NQF Level 4, Credits 7 84

10. 612102001-PM-10, Attend to dairy herd management activities, NQF Level 5, Credits 8 89

11. 612102001-PM-11, Attend to milk parlour management activities, NQF Level 5, Credits 10 94

12. 612102001-PM-12, Attend to farm business management activities, NQF Level 5, Credits 10 96

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List of Work Experience Module Specifications 104

1. 612102001-WM-01, Calf and heifer rearing practices and a dairy farm, NQF Level 3, Credits 18 105

2. 612102001-WM-02, Heifer, cow and bull production and health care practices on a dairy farm, NQF Level 3, Credits 18 108

3. 612102001-WM-03, Lactating cow feeding practices on a dairy farm, NQF Level 3, Credits 18 110

4. 612102001-WM-04, Milk harvesting, parlour hygiene and equipment care processes on a dairy farm, NQF Level 3, Credits 23 112

5. 612102001-WM-05, In parlour milk processing and handling, NQF Level 3, Credits 13114

6. 612102001-WM-06, Direct a work team in different dairy farming production activities, NQF Level 4, Credits 18 116

7. 612102001-WM-07, Dairy farm records and administrative processes, NQF Level 4, Credits 10 119

8. 612102001-WM-08, Implementation of Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 18 122

9. 612102001-WM-09, Dairy farming management processes and systems, NQF Level 5, Credits 42 125

10. 612102001-WM-10, The establishment and management of pastures on a dairy farm, NQF Level 5, Credits 32 128

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SECTION 1: CURRICULUM SUMMARY

1. Occupational Information

1.1 Associated Occupation

612102: Dairy Farmer

1.2 Occupation or Specialisation Addressed by this Curriculum

612102001: Dairy Unit Manager

1.3 Alternative Titles used by Industry

- Dairy Farm Manager
- Dairy Herd Manager
- Dairy Production Manager

2. Curriculum Information

2.1 Curriculum Structure

This qualification is made up of the following compulsory Knowledge and Practical Skill Modules:

Knowledge Modules:

- 612102001-KM-01, South African dairy farming environment, NQF Level 3, Credits 4
- 612102001-KM-02, Dairy calf and heifer rearing, feeding and health care, NQF Level 3, Credits 8
- 612102001-KM-03, Dairy animal health care, NQF Level 2, Credits 8
- 612102001-KM-04, Dairy animal production, NQF Level 3, Credits 8
- 612102001-KM-05, Dairy livestock feeding, NQF Level 3, Credits 8
- 612102001-KM-06, Milk harvesting and in-parlour processing, NQF Level 3, Credits 10
- 612102001-KM-07, Team Leadership, NQF Level 4, Credits 8
- 612102001-KM-08, Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 8
- 612102001-KM-09, Dairy farm production management, NQF Level 5, Credits 10
- 612102001-KM-10, Farm business management, NQF Level 5, Credits 10
- 612102001-KM-11, Pasture management, NQF Level 5, Credits 12

Total number of credits for Knowledge Modules: 94

Practical Skill Modules:

- 612102001-PM-01, Perform calf and heifer rearing, production and health care practices, NQF Level 3, Credits 9

- 612102001-PM-02, Perform animal production and health care practices of cows and bulls, NQF Level 3, Credits 9
- 612102001-PM-03, Prepare feed and feed cows in milk, NQF Level 3, Credits 9
- 612102001-PM-04, Harvest milk, attend to milk parlour hygiene and equipment, NQF Level 3, Credits 9
- 612102001-PM-05, Attend to dairy parlour water treatment and waste water, NQF Level 3, Credits 4
- 612102001-PM-06, Initiate and maintain first line discipline, NQF Level 4, Credits 7
- 612102001-PM-07, Lead and direct work teams, NQF Level 4, Credits 7
- 612102001-PM-08, Keep dairy farm records, NQF Level 4, Credits 7
- 612102001-PM-09, Attend to concepts related to the dairy code of good practise for milk producers, NQF Level 4, Credits 7
- 612102001-PM-10, Attend to dairy herd management activities, NQF Level 5, Credits 8
- 612102001-PM-11, Attend to milk parlour management activities, NQF Level 5, Credits 10
- 612102001-PM-12, Attend to farm business management activities, NQF Level 5, Credits 10
- 612102001-PM-13, Attend to pasture management activities, NQF Level 5, Credits 10

Total number of credits for Practical Skill Modules: 106

This qualification also requires the following Work Experience Modules:

- 612102001-WM-01, Calf and heifer rearing practices and a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-02, Heifer, cow and bull production and health care practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-03, Lactating cow feeding practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-04, Milk harvesting, parlour hygiene and equipment care processes on a dairy farm, NQF Level 3, Credits 23
- 612102001-WM-05, In parlour milk processing and handling, NQF Level 3, Credits 13
- 612102001-WM-06, Direct a work team in different dairy farming production activities, NQF Level 4, Credits 18
- 612102001-WM-07, Dairy farm records and administrative processes, NQF Level 4, Credits 10
- 612102001-WM-08, Implementation of Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 18
- 612102001-WM-09, Dairy farming management processes and systems, NQF Level 5, Credits 42
- 612102001-WM-10, The establishment and management of pastures on a dairy farm, NQF Level 5, Credits 32

Total number of credits for Work Experience Modules: 210

2.2 Entry Requirements

NQF Level 4 with Mathematics and Natural Science

3. Assessment Quality Partner Information

Name of body: AgriSETA

Address of body: AgriSETA House 529 Belvedere Road Arcadia 0083

Contact person name: QCTO Manager

Contact person work telephone number: (012) 301 5600

4. Part Qualification Curriculum Structure

Part Qualification 1:

Title:

Dairy Farm Worker, NQF Level 2, Credits 132

Purpose:

A Dairy Farm Worker attends to the daily livestock farming and milking practices on a dairy farm

Applicable Modules (Rules of Combination)

Knowledge Modules:

- 612102001-KM-01, South African dairy farming environment, NQF Level 3, Credits 4
- 612102001-KM-02, Dairy calf and heifer rearing, feeding and health care, NQF Level 3, Credits 8
- 612102001-KM-03, Dairy animal health care, NQF Level 2, Credits 8
- 612102001-KM-04, Dairy animal production, NQF Level 3, Credits 8
- 612102001-KM-05, Dairy livestock feeding, NQF Level 3, Credits 8
- 612102001-KM-06, Milk harvesting and in-parlour processing, NQF Level 3, Credits 10

Total number of credits for Knowledge Modules: 46

Practical Skill Modules:

- 612102001-PM-01, Perform calf and heifer rearing, production and health care practices, NQF Level 3, Credits 9
- 612102001-PM-02, Perform animal production and health care practices of cows and bulls, NQF Level 3, Credits 9
- 612102001-PM-03, Prepare feed and feed cows in milk, NQF Level 3, Credits 9
- 612102001-PM-04, Harvest milk, attend to milk parlour hygiene and equipment, NQF Level 3, Credits 9
- 612102001-PM-05, Attend to dairy parlour water treatment and waste water, NQF Level 3, Credits 4

Total number of credits for Practical Skill Modules: 40

This qualification also requires the following Work Experience Modules:

- 612102001-WM-01, Calf and heifer rearing practices and a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-02, Heifer, cow and bull production and health care practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-03, Lactating cow feeding practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-04, Milk harvesting, parlour hygiene and equipment care processes on a dairy farm, NQF Level 3, Credits 23
- 612102001-WM-05, In parlour milk processing and handling, NQF Level 3, Credits 13

Total number of credits for Work Experience Modules: 90

ENTRY REQUIREMENTS

NQF Level 1 qualification within the agricultural field

Assessment Qualification Standards:

- Attend to livestock feeding, production and health care functions on a dairy farm (30%)
- Attend dairy parlour hygiene, milk harvesting and equipment care activities (30%)

ARTICULATION

- **Horizontal Articulation:**
    - National Certificate: Animal Production, SAQA Qualification ID 48976, NQF Level 2
- **Vertical Articulation:**
    - National Certificate: Animal Production, SAQA Qualification ID 49048, NQF Level 3

Part Qualification 2:

Title:

Dairy Farm Supervisor, NQF Level 3, Credits 266

Purpose:

A Dairy Farm Supervisor attends to the daily livestock farming and milking practices on a dairy farm. A Dairy Farm Supervisor also attends to the implementation of the Code of good practice for dairy farmers and lead and direct work teams.

Applicable Modules (Rules of Combination)

Knowledge Modules:

- 612102001-KM-01, South African dairy farming environment, NQF Level 3, Credits 4
- 612102001-KM-02, Dairy calf and heifer rearing, feeding and health care, NQF Level 3, Credits 8
- 612102001-KM-03, Dairy animal health care, NQF Level 2, Credits 8

- 612102001-KM-04, Dairy animal production, NQF Level 3, Credits 8
- 612102001-KM-05, Dairy livestock feeding, NQF Level 3, Credits 8
- 612102001-KM-06, Milk harvesting and in-parlour processing, NQF Level 3, Credits 10
- 612102001-KM-07, Team Leadership, NQF Level 4, Credits 8
- 612102001-KM-08, Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 8

Total number of credits for Knowledge Modules: 62

Practical Skill Modules:

- 612102001-PM-01, Perform calf and heifer rearing, production and health care practices, NQF Level 3, Credits 9
- 612102001-PM-02, Perform animal production and health care practices of cows and bulls, NQF Level 3, Credits 9
- 612102001-PM-03, Prepare feed and feed cows in milk, NQF Level 3, Credits 9
- 612102001-PM-04, Harvest milk, attend to milk parlour hygiene and equipment, NQF Level 3, Credits 9
- 612102001-PM-05, Attend to dairy parlour water treatment and waste water, NQF Level 3, Credits 4
- 612102001-PM-06, Initiate and maintain first line discipline, NQF Level 4, Credits 7
- 612102001-PM-07, Lead and direct work teams, NQF Level 4, Credits 7
- 612102001-PM-08, Keep dairy farm records, NQF Level 4, Credits 7
- 612102001-PM-09, Attend to concepts related to the dairy code of good practise for milk producers, NQF Level 4, Credits 7

Total number of credits for Practical Skill Modules: 68

This qualification also requires the following Work Experience Modules:

- 612102001-WM-01, Calf and heifer rearing practices and a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-02, Heifer, cow and bull production and health care practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-03, Lactating cow feeding practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-04, Milk harvesting, parlour hygiene and equipment care processes on a dairy farm, NQF Level 3, Credits 23
- 612102001-WM-05, In parlour milk processing and handling, NQF Level 3, Credits 13
- 612102001-WM-06, Direct a work team in different dairy farming production activities, NQF Level 4, Credits 18
- 612102001-WM-07, Dairy farm records and administrative processes, NQF Level 4, Credits 10
- 612102001-WM-08, Implementation of Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 18

Total number of credits for Work Experience Modules: 136

ENTRY REQUIREMENTS

NQF Level 2 qualification within the agricultural field

Assessment Qualification Standards:

- Attend to livestock feeding, production and health care functions on a dairy farm (30%)
- Attend dairy parlour hygiene, milk harvesting and equipment care activities (30%)
- Oversee and manage dairy farming activities (40%)

ARTICULATION

- **Horizontal Articulation:**
    - National Certificate: Animal Production, SAQA Qualification ID 49048, NQF Level 3
- **Vertical Articulation:**
    - National Certificate: Animal Production, SAQA Qualification ID 48979, NQF Level 4

SECTION 2: OCCUPATIONAL PROFILE

1. Occupational Purpose

attends to the day to day management of a dairy farming unit, of dairy farm animals, harvesting and processing of milk, general operation and maintenance of dairy and farming equipment, the protection of natural farm resources and the performance of work teams or individuals.

2. Occupational Tasks

- Attend to livestock feeding, production and health care functions on a dairy farm
- Attend dairy parlour hygiene, milk harvesting and equipment care activities
- Oversee and manage dairy farming activities

3. Occupational Task Details

3.1. Attend to livestock feeding, production and health care functions on a dairy farm (NQF Level 3)

Unique Product or Service:

Healthy and productive livestock

Occupational Responsibilities:

- Perform calf and heifer rearing, production and health care practices
- Perform animal production and health care practices of cows and bulls
- Prepare the feed and feed cows in milk

Occupational Contexts:

- Calf and heifer rearing practices on a dairy farm
- Cow and bull production and health care practices on a dairy farm
- Lactating cow feeding practices on a dairy farm

3.2. Attend dairy parlour hygiene, milk harvesting and equipment care activities (NQF Level 3)

Unique Product or Service:

Quality milk for use and delivery

Occupational Responsibilities:

- Harvest milk, attend to milk parlour hygiene and equipment
- Attend to dairy parlour water treatment and waste water

Occupational Contexts:

- Milk harvesting, parlour hygiene and equipment care processes on a dairy farm

- In-parlour milk processing and handling

3.3. Oversee and manage dairy farming activities

Unique Product or Service:

Productive dairy operations

Occupational Responsibilities:

- Initiate and maintain first line discipline
- Lead and direct work teams on a dairy farm
- Keep dairy farm records
- Attend to concepts related to the dairy code of good practise for milk producers
- Attend to dairy herd management activities
- Attend to milk parlour management activities
- Attend to farm business management activities
- Attend to pasture management activities

Occupational Contexts:

- Direct a work team in different dairy farming production activities
- Dairy farm records and administrative processes
- Implementation of Code of Good Practice for Milk Producers in the dairy industry
- Dairy farming management processes and systems
- The establishment and management of pastures on a dairy farm

SECTION 3: CURRICULUM COMPONENT SPECIFICATIONS

SECTION 3A: KNOWLEDGE MODULE SPECIFICATIONS

List of Knowledge Modules for which Specifications are included

- 612102001-KM-01, South African dairy farming environment, NQF Level 3, Credits 4
- 612102001-KM-02, Dairy calf and heifer rearing, feeding and health care, NQF Level 3, Credits 8
- 612102001-KM-03, Dairy animal health care, NQF Level 2, Credits 8
- 612102001-KM-04, Dairy animal production, NQF Level 3, Credits 8
- 612102001-KM-05, Dairy livestock feeding, NQF Level 3, Credits 8
- 612102001-KM-06, Milk harvesting and in-parlour processing, NQF Level 3, Credits 10
- 612102001-KM-07, Team Leadership, NQF Level 4, Credits 8
- 612102001-KM-08, Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 8
- 612102001-KM-09, Dairy farm production management, NQF Level 5, Credits 10
- 612102001-KM-10, Farm business management, NQF Level 5, Credits 10
- 612102001-KM-11, Pasture management, NQF Level 5, Credits 12

1. 612102001-KM-01, South African dairy farming environment, NQF Level 3, Credits 4

1.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the dairy sector of farming in South Africa.

The learning will enable learners to demonstrate an understanding of:

- KM-01-KT01: Introduction to the South African dairy industry
- KM-01-KT02: Dairy breeds
- KM-01-KT03: Basic dairy farming business concepts

1.2 Guidelines for Topics

1.2.1. KM-01-KT01: Introduction to the South African dairy industry

Topic elements to be covered include:

- KT0101 Career opportunities in the dairy industry
- KT0102 Commercial dairy farming
- KT0103 Emerging farmers and opportunities
- KT0104 Risks in dairy farming
- KT0105 The dairy industry value chain

Internal Assessment Criteria and Weight

- IAC0101 Demonstrate understanding of the dairy farming industry in terms of different careers, farming opportunities and risks for farmers

(Weight 20%)

1.2.2. KM-01-KT02: Dairy breeds

Topic elements to be covered include:

- KT0201 Holstein Friesland
- KT0202 Jersey
- KT0203 Guernsey
- KT0204 Ayrshire
- KT0205 Dairy Swiss
- KT0206 Dual purpose breeds
- KT0207 Cross breeds
- KT0208 Choosing a breed

Internal Assessment Criteria and Weight

- IAC0201 Distinguish between different dairy breeds in relation to choosing a breed

(Weight 50%)

1.2.3. KM-01-KT03: Basic dairy farming business concepts

Topic elements to be covered include:

- KT0301 Understanding management
- KT0302 Understanding money matters and costs
- KT0303 Understanding marketing
- KT0304 Understanding machines and equipment
- KT0305 Understanding manpower
- KT0306 Understanding of production material and resources
- KT0307 Understanding the value of livestock
- KT0308 Understanding productivity and profitability
- KT0309 Understanding production cycles

Internal Assessment Criteria and Weight

- IAC0301 Demonstrate an understanding of the dairy farming business environment in terms of the factors that affect sustainable farming
- IAC0302 Demonstrate an understanding of factors that must be controlled to prevent losses and waste

(Weight 30%)

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

1.4 Exemptions

- None recognised

2. 612102001-KM-02, Dairy calf and heifer rearing, feeding and health care, NQF Level 3, Credits 8

2.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of calf and heifer rearing practices of the dairy farming industry.

The learning will enable learners to demonstrate an understanding of:

- KM-02-KT01: Introduction to dairy calf and heifer health care
- KM-02-KT02: Calf rearing systems
- KM-02-KT03: Hygiene and care
- KM-02-KT04: Calf and heifer feeding concepts
- KM-02-KT05: Awareness of dairy calf and heifer diseases
- KM-02-KT06: Calf and heifer care and production concepts

2.2 Guidelines for Topics

2.2.1. KM-02-KT01: Introduction to dairy calf and heifer health care

Topic elements to be covered include:

- KT0101 Developmental time scale of calves and replacement heifers
- KT0102 Care of calving and the new-born calf (vitality, colostrum, navel disinfection)
- KT0103 Importance of healthy calves and heifers in terms of productive herds
- KT0104 Visual appearance of a healthy calf
- KT0105 Factors that affect calf health
- KT0106 Importance of colostrum and passive immunity
- KT0107 Vaccination programs (active immunity) for dairy calves and heifers
- KT0108 Types of vaccines, storage and handling of vaccines (maintenance of the cold chain)
- KT0109 Internal parasite control
- KT0110 External parasite control
- KT0111 Separation of calves with disease and quarantine principles
- KT0112 Bio-security of calf rearing facilities

Internal Assessment Criteria and Weight

- IAC0101 Describe calf health in terms of visual signs of health and factors affecting calf health
- IAC0102 Describe the factors contributing to the immunity of calves in terms of the importance of colostrum and the vaccination programme to be followed

- IAC0103 Explain the types of vaccines, storage and handling of vaccines and the bio-security of calf rearing facilities
- IAC0104 Demonstrate understanding of good health care practices in calf rearing in terms of parasite control, navel disinfection and separation of calves with disease

(Weight 25%)

2.2.2. KM-02-KT02: Calf rearing systems

Topic elements to be covered include:

- KT0201 Permanent housing
- KT0202 Movable pens
- KT0203 Calf camps for group rearing
- KT0204 Deep litter systems

Internal Assessment Criteria and Weight

- IAC0201 Describe various calf rearing systems

(Weight 10%)

2.2.3. KM-02-KT03: Hygiene and care

Topic elements to be covered include:

- KT0301 Importance of hygiene
- KT0302 Daily inspection practices including critical inspection points
- KT0303 Factors affecting hygiene
- KT0304 Cleaning and disinfecting chemicals and equipment
- KT0305 Signs of poor hygiene
- KT0306 Fly control
- KT0307 Water drainage and moisture control
- KT0308 Personal hygiene and protective clothing

Internal Assessment Criteria and Weight

- IAC0301 Demonstrate an understanding of the importance of hygiene, with reference to personal hygiene and protective clothing, factors affecting hygiene and signs of poor hygiene
- IAC0302 Explain daily hygiene inspection practices as well as the correct handling of cleaning and disinfecting chemicals and equipment
- IAC0303 Discuss the necessity for control measures contributing to hygiene with reference to water drainage, moisture and flies

(Weight 15%)

2.2.4. KM-02-KT04: Calf and heifer feeding concepts

Topic elements to be covered include:

- KT0401 Handling and feeding of colostrum
- KT0402 Handling and preparing milk and milk substitutes for feeding
- KT0403 Milk feeding risks (mastitis, milk containing residues such as antibiotics)
- KT0404 Basic nutritional requirements of dairy calves and heifers at various ages
- KT0405 Importance of roughage and concentrates at various ages
- KT0406 Milk feeding schedules of dairy calves
- KT0407 Feeding schedules for calves and heifers
- KT0408 Water and water quality needs
- KT0409 Cleaning and disinfection of feeding equipment
- KT0410 Weaning of calves

Internal Assessment Criteria and Weight

- IAC0401 Demonstrate an understanding of the necessity of colostrum to new born calves, the correct handling procedure of colostrum and efficient feeding methods
- IAC0402 Demonstrate an understanding of feeding practices of heifers
- IAC0403 Explain the importance of cleaning and disinfection of feeding equipment
- IAC0404 Discuss the weaning process of calves

(Weight 25%)

2.2.5. KM-02-KT05: Awareness of dairy calf and heifer diseases

Topic elements to be covered include:

- KT0501 Causes of diarrhoea by viral diseases including rota, corona
- KT0502 Causes of diarrhoea by bacterial diseases including E.coli, Salmonella spp.
- KT0503 Causes of diarrhoea by protozoal diseases (coccidiosis)
- KT0504 Nutritional induced diarrhoea
- KT0505 First response treatments for diarrhoea
- KT0506 Causes of other diseases such as pneumonia, eye infections, navel infections, calf diphtheria

Internal Assessment Criteria and Weight

- IAC0501 Demonstrate an understanding of causes of diarrhoea referring to viral diseases, bacterial diseases, protozoal diseases and nutritional induced diarrhoea
- IAC0502 Demonstrate a basic understanding of causes of diseases in calves and heifers
- IAC0503 Discuss the value of first response treatments for diarrhoea

(Weight 15%)

2.2.6. KM-02-KT06: Calf and heifer care and production concepts

Topic elements to be covered include:

- KT0601 Calf and heifer handling and restraining
- KT0602 Identification, marking and branding
- KT0603 Removal of accessory teats
- KT0604 De-horning
- KT0605 Castration

Internal Assessment Criteria and Weight

- IAC0601 Demonstrate an understanding of handling and restraining practices
- IAC0602 Explain production concepts such as identification, removal of accessory teats, de-horning and castration

(Weight 10%)

2.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

2.4 Exemptions

- None recognised

3. 612102001-KM-03, Dairy animal health care, NQF Level 2, Credits 8

3.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of dairy animal health care.

The learning will enable learners to demonstrate an understanding of:

- KM-03-KT01: Diagrammatic illustrations and basic functions of the anatomical systems
- KM-03-KT02: General dairy livestock health
- KM-03-KT03: Awareness of causes of disease in dairy animals
- KM-03-KT04: Health assessment
- KM-03-KT05: Farm bio-security including zoonotic diseases

3.2 Guidelines for Topics

3.2.1. KM-03-KT01: Diagrammatic illustrations and basic functions of the anatomical systems

Topic elements to be covered include:

- KT0101 Body parts of livestock
- KT0102 Main organs of livestock
- KT0103 The ruminant digestive system
- KT0104 The udder
- KT0105 The reproduction system
- KT0106 The immune system
- KT0107 The respiratory system
- KT0108 The circulatory system
- KT0109 The urinary system
- KT0110 The nervous system
- KT0111 The muscular and skeletal system
- KT0112 The skin

Internal Assessment Criteria and Weight

- IAC0101 Label the body parts and main organs of dairy livestock on diagrammatic illustrations
- IAC0102 Demonstrate a basic understanding of the eight systems of dairy livestock
- IAC0103 Demonstrate a basic understanding of the skin and the udder

(Weight 10%)

3.2.2. KM-03-KT02: General dairy livestock health

Topic elements to be covered include:

- KT0201 Importance of healthy herd in terms of productive herds
- KT0202 Visual appearance of a healthy animal
- KT0203 Factors that affect animal health
- KT0204 Immunity and vaccination programs
- KT0205 Types of vaccines
- KT0206 Cold chain requirements (storage and handling)
- KT0207 Separation of livestock with disease
- KT0208 Risks of poor application practices (abscess forming)
- KT0209 Adverse drug reactions

Internal Assessment Criteria and Weight

- IAC0201 Demonstrate an understanding of healthy, productive herds in terms of visual appearance, factors affecting animal health and the separation of livestock with disease
- IAC0202 Explain the importance of immunity and necessity of vaccination programs including reference to types of vaccines and storage and handling thereof.
- IAC0203 Explain the risks of poor application practices (abscess forming) and adverse drug reactions

(Weight 15%)

3.2.3. KM-03-KT03: Awareness of causes of disease in dairy animals

Topic elements to be covered include:

- KT0301 Viral diseases (e.g. lumpy skin disease, Rift Valley fever, three-day stiff sickness, enzootic bovine leukosis)
- KT0302 Bacterial diseases (e.g. anthrax, brucellosis, black quarter, pasteurellosis, metritis, mastitis, tuberculosis)
- KT0303 Toxins (e.g. botulism)
- KT0304 Fungal diseases (e.g. ring worm)
- KT0305 Protozoal diseases (e.g. red water)
- KT0306 Rickettsial diseases (e.g. heart water, anaplasmosis)
- KT0307 Nutritional causes (e.g. acidosis, bloat, mycotoxicosis)
- KT0308 Metabolic diseases (e.g. milk fever, ketosis)
- KT0309 Injury and trauma

- KT0310 Poisoning (e.g. urea, lead, plant poisoning, algae poisoning)

Internal Assessment Criteria and Weight

- IAC0301 Demonstrate a basic understanding of causes of diseases in dairy animals and common treatments
- IAC0302 Demonstrate a basic understanding of the effect of injury and trauma, poisoning and toxins on the health of dairy animals

(Weight 25%)

3.2.4. KM-03-KT04: Health assessment

Topic elements to be covered include:

- KT0401 Fresh cow health assessment
- KT0402 Dry cow health assessment

Internal Assessment Criteria and Weight

- IAC0401 Explain the main aspects of a health assessment for fresh and dry cows

(Weight 25%)

3.2.5. KM-03-KT05: Farm bio-security including zoonotic diseases

Topic elements to be covered include:

- KT0501 Defining bio-security
- KT0502 Zoonotic diseases (e.g. brucellosis, tuberculosis, rabies, Rift Valley fever)
- KT0503 Disposal of dead animals
- KT0504 Quarantine
- KT0505 Movement control (access control, vehicles, people and livestock)

Internal Assessment Criteria and Weight

- IAC0501 Explain key concepts of farm bio-security and risk prevention in terms of Zoonotic diseases, disposal of dead animals, quarantine and movement control

(Weight 25%)

3.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

3.4 Exemptions

- None recognised

4. 612102001-KM-04, Dairy animal production, NQF Level 3, Credits 8

4.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the production environment of dairy animals.

The learning will enable learners to demonstrate an understanding of:

- KM-04-KT01: Animal herding and handling practices and equipment
- KM-04-KT02: Dairy animal breeding concepts
- KM-04-KT03: Water supply systems on dairy farms
- KM-04-KT04: Fencing

4.2 Guidelines for Topics

4.2.1. KM-04-KT01: Animal herding and handling practices and equipment

Topic elements to be covered include:

- KT0101 Dairy animal welfare and treatment practices
- KT0102 Herding of dairy livestock
- KT0103 Restraining dairy livestock
- KT0104 Dairy livestock loading and transport
- KT0105 Dairy livestock handling and holding facilities
- KT0106 Common facility problems
- KT0107 Stress factors
- KT0108 Shade and cooling

Internal Assessment Criteria and Weight

- IAC0101 Demonstrate an understanding of dairy animal welfare and handling practices in terms of herding, restraining, loading and transport as well as stress factors of dairy livestock
- IAC0102 Explain the necessity of proper dairy livestock handling and holding facilities as well as common facility problems

(Weight 30%)

4.2.2. KM-04-KT02: Dairy animal breeding concepts

Topic elements to be covered include:

- KT0201 Reproduction planning and goals
- KT0202 Breeding practices (natural breeding, breeding seasons, artificial breeding)
- KT0203 Male breeding behaviour

- KT0204 Basic concepts of infertility and venerial diseases
- KT0205 Oestrous cycle and signs of oestrous
- KT0206 Birth and after birth process
- KT0207 Gestation stages and period
- KT0208 Herd composition
- KT0209 Replacement heifers
- KT0210 Dairy animal condition assessment

Internal Assessment Criteria and Weight

- IAC0201 Demonstrate an understanding of dairy animal breeding concepts with regard to reproduction planning and goals, breeding seasons, herd composition and replacement animals
- IAC0202 Explain the concept dairy animal condition assessment
- IAC0203 Demonstrate an understanding of male breeding behavior, the oestrous cycle, the gestation stages and period
- IAC0204 Discuss artificial breeding practices and its applications in dairy animal breeding

(Weight 40%)

4.2.3. KM-04-KT03: Water supply systems on dairy farms

Topic elements to be covered include:

- KT0301 The water requirements of dairy cattle
- KT0302 Water troughs and distribution
- KT0303 Water quality

Internal Assessment Criteria and Weight

- IAC0301 Demonstrate an understanding of water supply systems on dairy farms, water requirements of dairy cattle, water troughs and distribution as well as water quality

(Weight 20%)

4.2.4. KM-04-KT04: Fencing

Topic elements to be covered include:

- KT0401 Fencing material
- KT0402 Fence construction

Internal Assessment Criteria and Weight

- IAC0401 Discuss fencing on a dairy farm with reference to fencing material and the construction of fences

(Weight 10%)

4.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

4.4 Exemptions

- None recognised

5. 612102001-KM-05, Dairy livestock feeding, NQF Level 3, Credits 8

5.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the importance and influence of feeding in dairy livestock.

The learning will enable learners to demonstrate an understanding of:

- KM-05-KT01: Dairy feed types and feeding practices
- KM-05-KT02: Feeding of heifers
- KM-05-KT03: Feeding of cows in milk
- KM-05-KT04: Feeding of dry cows
- KM-05-KT05: Feeding facilities and equipment

5.2 Guidelines for Topics

5.2.1. KM-05-KT01: Dairy feed types and feeding practices

Topic elements to be covered include:

- KT0101 Different feed types and feeding practices
- KT0102 Feeding concentrates (flat rate; step rates)
- KT0103 Total mix rations (TMR)
- KT0104 Feed additives
- KT0105 Supplementary feeding and licks
- KT0106 Natural grazing
- KT0107 Cultivated pastures and grazing practices (strips; camps; continuous grazing)
- KT0108 Silage making
- KT0109 Hay making

Internal Assessment Criteria and Weight

- IAC0101 Explain dairy feed types with reference to total mix rations and voluntary intake on pastures
- IAC0102 Demonstrate an understanding of grazing systems in terms of strip, camps and continuous grazing
- IAC0103 Explain the use of feed concentrates and feed additives
- IAC0104 Discuss the value of making silage and hay

(Weight 20%)

5.2.2. KM-05-KT02: Feeding of heifers

Topic elements to be covered include:

- KT0201 Feeding programs for heifers
- KT0202 Heifer growth targets

Internal Assessment Criteria and Weight

- IAC0201 Demonstrate an understanding of heifer feeding practices in terms of feeding programs and heifer growth targets

(Weight 20%)

5.2.3. KM-05-KT03: Feeding of cows in milk

Topic elements to be covered include:

- KT0301 Feeding concepts and the importance of correct feeding of cows in milk
- KT0302 The lactation curve (early, mid, late and dry period)
- KT0303 Metabolic problems of cows in milk

Internal Assessment Criteria and Weight

- IAC0301 Explain the importance of correct feeding for cows in milk
- IAC0302 Explain the lactation curve and its influence on feeding needs of cows in milk
- IAC0303 List and discuss metabolic problems of cows in milk

(Weight 30%)

5.2.4. KM-05-KT04: Feeding of dry cows

Topic elements to be covered include:

- KT0401 Purpose of the dry period
- KT0402 Feeding during the dry period (far away and close up phase)
- KT0403 Feeding of first calf heifers
- KT0404 Prevention of metabolic problems

Internal Assessment Criteria and Weight

- IAC0401 Explain the purpose of the dry period for cows
- IAC0402 Explain the importance of correct feeding during the dry period
- IAC0403 List and describe metabolic problems of dry cows

(Weight 20%)

5.2.5. KM-05-KT05: Feeding facilities and equipment

Topic elements to be covered include:

- KT0501 Feed storage facilities
- KT0502 Feed mixing and distribution equipment
- KT0503 Feed troughs
- KT0504 Housing systems
- KT0505 Drinking systems and water quality

Internal Assessment Criteria and Weight

- IAC0501 Demonstrate and understanding of feeding facilities with reference to feed troughs, storage facilities and distribution equipment

(Weight 10%)

5.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

5.4 Exemptions

- None recognised

6. 612102001-KM-06, Milk harvesting and in-parlour processing, NQF Level 3, Credits 10

6.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the harvesting of milk and in-parlour processing of milk.

The learning will enable learners to demonstrate an understanding of:

- KM-06-KT01: Milk harvesting facilities
- KM-06-KT02: Udder health
- KM-06-KT03: The milk harvesting process
- KM-06-KT04: Dairy parlour equipment and systems
- KM-06-KT05: Dairy parlour hygiene
- KM-06-KT06: Essential milk production records
- KM-06-KT07: Composition of milk and quality indicators
- KM-06-KT08: In parlour milk processing and quality control concepts

6.2 Guidelines for Topics

6.2.1. KM-06-KT01: Milk harvesting facilities

Topic elements to be covered include:

- KT0101 Location of the milking parlour
- KT0102 Layout of the milking parlour (herringbone; rotary; tandem)
- KT0103 Basic equipment of the milking parlour
- KT0104 Layout and specifications of holding pens and walk ways

Internal Assessment Criteria and Weight

- IAC0101 Demonstrate and understanding of feeding facilities with reference to feed troughs, storage facilities and distribution equipment

(Weight 5%)

6.2.2. KM-06-KT02: Udder health

Topic elements to be covered include:

- KT0201 The healthy udder
- KT0202 Common udder abnormalities
- KT0203 Udder hygiene
- KT0204 Mastitis (causes, diagnosis, treatment and prevention)

Internal Assessment Criteria and Weight

- IAC0201 List and describe elements of a healthy udder with reference to common udder abnormalities and udder hygiene
- IAC0202 Demonstrate an understanding of the causes, diagnosis, treatment and prevention of mastitis

(Weight 20%)

6.2.3. KM-06-KT03: The milk harvesting process

Topic elements to be covered include:

- KT0301 Cow handling and milking order
- KT0302 Milk let-down reflex
- KT0303 Pre-milking cow preparation
- KT0304 Milking process (hand, bucket and machine)
- KT0305 Post milking cow care
- KT0306 Handling of contaminated milk and colostrum

Internal Assessment Criteria and Weight

- IAC0301 Describe the handling of cows with reference to milking order of cows, pre-milking cow preparation and post milking cow handling
- IAC0302 Explain the milk let-down reflex

(Weight 20%)

6.2.4. KM-06-KT04: Dairy parlour equipment and systems

Topic elements to be covered include:

- KT0401 Milking equipment (components, care and maintenance)
- KT0402 Vacuum pump (components, care and maintenance)
- KT0403 Milk cooling equipment (components, care and maintenance)
- KT0404 Bulk storage equipment (components, care and maintenance)
- KT0405 Milk pump, valves and pipes (components, care and maintenance)
- KT0406 Milk flow recording systems
- KT0407 Inline wash system
- KT0408 Wastewater treatment systems
- KT0409 Standby power generator (care and maintenance)

Internal Assessment Criteria and Weight

- IAC0401 Label a diagrammatic illustration of the different components of a milking equipment
- IAC0402 Label a diagrammatic illustration of the different components of a milking system
- IAC0403 Demonstrate an understanding of care and maintenance of milking equipment, vacuum and milk pump, milk cooling and bulk storage equipment
- IAC0404 Describe the water systems in the dairy parlour with reference to wastewater and the inline wash system
- IAC0405 Describe the milk flow recording system

(Weight 10%)

6.2.5. KM-06-KT05: Dairy parlour hygiene

Topic elements to be covered include:

- KT0501 Personal hygiene and protective clothing
- KT0502 Parlour hygiene
- KT0503 Equipment hygiene
- KT0504 Milk parlour environment hygiene
- KT0505 Foot baths
- KT0506 Ablution facility hygiene
- KT0507 Vermin control

Internal Assessment Criteria and Weight

- IAC0501 Demonstrate an understanding of dairy parlour hygiene with reference to personal, parlour, equipment, milk parlour environment, foot baths and ablution facility hygiene
- IAC0502 Explain the importance of vermin control

(Weight 15%)

6.2.6. KM-06-KT06: Essential milk production records

Topic elements to be covered include:

- KT0601 Importance of good record keeping
- KT0602 Parlour records
- KT0603 Individual cow records
- KT0604 Insemination records
- KT0605 Health register
- KT0606 General diary

- KT0607 Cow and heifer calendars

Internal Assessment Criteria and Weight

- IAC0601 Explain the importance of good record keeping with reference to parlour records, individual cow records and insemination records
- IAC0602 Discuss the value of keeping a general diary, health register and cow and heifer calendars

(Weight 10%)

6.2.7. KM-06-KT07: Composition of milk and quality indicators

Topic elements to be covered include:

- KT0701 Composition of milk
- KT0702 Factors influencing milk composition and quality
- KT0703 Quality indicators including somatic cell counts, bacterial counts, Milk Urea Nitrogen (MUN), butter fat , protein and lactose

Internal Assessment Criteria and Weight

- IAC0701 Describe the composition of milk and factors influencing milk composition and quality with reference to somatic cell counts, bacterial counts, percentages of butter fat, protein and lactose as well as MUN

(Weight 10%)

6.2.8. KM-06-KT08: In parlour milk processing and quality control concepts

Topic elements to be covered include:

- KT0801 Cold chain requirements and bulk tank management
- KT0802 Improvement of shelf life
- KT0803 Milk safety for human consumption
- KT0804 Milk quality tests at dispatch

Internal Assessment Criteria and Weight

- IAC0801 Demonstrate an understanding of basic milk processing and quality control concepts in terms of the cold chain requirements and improvement of shelf life
- IAC0802 Discuss the importance of milk safety for human consumption
- IAC0803 Describe milk quality tests at dispatch

(Weight 10%)

6.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

6.4 Exemptions

- None recognised

7. 612102001-KM-07, Team Leadership, NQF Level 4, Credits 8

7.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of concepts related to supervision of subordinate work teams and individuals.

The learning will enable learners to demonstrate an understanding of:

- KM-07-KT01: Introductory supervision concepts
- KM-07-KT02: Performance standards concepts
- KM-07-KT03: Motivation and team leadership concepts
- KM-07-KT04: Inter-personal relations
- KM-07-KT05: First line discipline
- KM-07-KT06: Work efficiency and effectiveness

7.2 Guidelines for Topics

7.2.1. KM-07-KT01: Introductory supervision concepts

Topic elements to be covered include:

- KT0101 The function of the supervisor in terms of planning, organising, directing and controlling
- KT0102 The use of standard workplace practices and procedures to direct work process
- KT0103 Business ethics and values

Internal Assessment Criteria and Weight

- IAC0101 Explain the role of the supervisor in terms of planning, organising, directing and controlling
- IAC0102 Discuss the use of standard workplace practices and procedures to direct work process while keeping business ethics and values in mind

(Weight 20%)

7.2.2. KM-07-KT02: Performance standards concepts

Topic elements to be covered include:

- KT0201 Setting performance goals
- KT0202 Formulating clear instructions
- KT0203 Controlling stands of performance
- KT0204 Correcting poor performance
- KT0205 The use of coaching to address performance problems
- KT0206 Delegation in the workplace

Internal Assessment Criteria and Weight

- IAC0201 Explain the principles of giving clear instructions with examples to support explanation
- IAC0202 Discuss the performance of a work team in terms of setting goals, controlling stands of performance and correcting poor performance
- IAC0203 Explain the steps that should be followed to correct performance related problems through coaching
- IAC0204 Discuss the necessity of delegation in the workplace with real life examples to support the discussion

(Weight 20%)

7.2.3. KM-07-KT03: Motivation and team leadership concepts

Topic elements to be covered include:

- KT0301 Basic principles of motivation
- KT0302 The dynamics of work teams
- KT0303 Effective team communication

Internal Assessment Criteria and Weight

- IAC0301 Demonstrate an understanding of concepts that can be used to guide and motivate work teams with reference to effective team communication and the dynamics of work teams

(Weight 15%)

7.2.4. KM-07-KT04: Inter-personal relations

Topic elements to be covered include:

- KT0401 Developing effective work relations
- KT0402 Gaining respect
- KT0403 Workplace discrimination

Internal Assessment Criteria and Weight

- IAC0401 Demonstrate an understanding of conduct that will affect work relations positively and negatively with real life examples to support the discussion

(Weight 15%)

7.2.5. KM-07-KT05: First line discipline

Topic elements to be covered include:

- KT0501 The supervisors role in maintaining workplace discipline
- KT0502 Concept of fairness

- KT0503 Disciplinary codes and procedures
- KT0504 Sources of conflict and resolving conflict in the workplace
- KT0505 Dealing with difficult people
- KT0506 Disciplinary records

Internal Assessment Criteria and Weight

- IAC0501 Explain the supervisors role in maintaining workplace discipline with reference to dealing with difficult people and disciplinary records
- IAC0502 List the different categories of misconduct
- IAC0503 Demonstrate an understanding of disciplinary codes and procedures and the difference between informal and formal disciplinary procedures
- IAC0504 Explain the concepts of fairness by providing real life examples
- IAC0505 Discuss approaches to deal effectively with conflict in the workplace

(Weight 20%)

7.2.6. KM-07-KT06: Work efficiency and effectiveness

Topic elements to be covered include:

- KT0601 The supervisors role in productivity
- KT0602 Daily activity planning
- KT0603 Organising and prioritising time
- KT0604 Using a diary

Internal Assessment Criteria and Weight

- IAC0601 Explain the importance of a productive work environment and how the supervisor can contribute to that in terms of a sustainable business
- IAC0602 Explain productivity improvement opportunities by quoting real life examples
- IAC0603 Complete a daily activity plan through organising and prioritising time using real life examples

(Weight 10%)

7.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

7.4 Exemptions

- None recognised

8. 612102001-KM-08, Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 8

8.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of concepts related to the dairy code of good practise for milk producers.

The learning will enable learners to demonstrate an understanding of:

- KM-08-KT01: Introduction to Code of Practice for milk producers
- KM-08-KT02: Structural requirements and machine maintenance
- KM-08-KT03: Good milking practices
- KM-08-KT04: Animal health and welfare
- KM-08-KT05: General and personal hygiene
- KM-08-KT06: Documentation
- KM-08-KT07: Standards of and quality control for raw milk

8.2 Guidelines for Topics

8.2.1. KM-08-KT01: Introduction to Code of Practice for milk producers

Topic elements to be covered include:

- KT0101 Relevance of a Code of Practice for milk producers
- KT0102 Food safety and food safety hazards
- KT0103 Control measures
- KT0104 Objectives
- KT0105 Food safety management system (FSMS)
- KT0106 Regulations and standards
- KT0107 Explanations of words commonly used in the dairy industry
- KT0108 Explanation of legal terminology

Internal Assessment Criteria and Weight

- IAC0101 Relevance of a Code of Practice for milk producers can be explained in terms of a sustainable business
- IAC0102 Food safety and food safety hazards as well as the importance of a food safety management system (FSMS) can be explained in term of real life examples
- IAC0103 Regulations, standards and the relevant control measures can be related to real life examples
- IAC0104 Words commonly used in the dairy industry as well as legal terminology can be explained

(Weight 15%)

8.2.2. KM-08-KT02: Structural requirements and machine maintenance

Topic elements to be covered include:

- KT0201 General requirements for the milking shed
- KT0202 Requirements for the milking parlour
- KT0203 General requirements for the milk room
- KT0204 Pest prevention programme in the milk room
- KT0205 Security
- KT0206 Milk storage and cooling equipment
- KT0207 Good dairy farm practice

Internal Assessment Criteria and Weight

- IAC0201 General requirements for the milking shed, the milking parlour, the milk room and the milk storage and cooling equipment can be explained
- IAC0202 Pest prevention programme in the milk room as well as security and good dairy farm practice can be explained by quoting real life examples

(Weight 15%)

8.2.3. KM-08-KT03: Good milking practices

Topic elements to be covered include:

- KT0301 Good milking practices
- KT0302 Milking procedures
- KT0303 Teat and udder health

Internal Assessment Criteria and Weight

- IAC0301 Good milking practices with regards to milking procedures and teat and udder health can be explained by quoting real life examples

(Weight 15%)

8.2.4. KM-08-KT04: Animal health and welfare

Topic elements to be covered include:

- KT0401 Herd health
- KT0402 Animal feed and water
- KT0403 Animal welfare

- KT0404 Good dairy farming practices

Internal Assessment Criteria and Weight

- IAC0401 Good farming practices related to herd health, animal feed and water as well as animal welfare can be explained as being applicable to the dairy farm environment

(Weight 15%)

8.2.5. KM-08-KT05: General and personal hygiene

Topic elements to be covered include:

- KT0501 General hygiene
- KT0502 Personal hygiene
- KT0503 Training
- KT0504 Hygiene practices

Internal Assessment Criteria and Weight

- IAC0501 Personal hygiene requirements with regards to matters such as personal cleanliness and behaviour, illness and injuries, protective clothing and personnel hygiene facilities can be explained in relation to the dairy farm environment
- IAC0502 General hygiene requirements with regards to a cleaning and disinfection programme, cleaning procedures, cleaning equipment, cleaning chemicals and disinfectants can be explained in relation to the dairy farm environment
- IAC0503 The importance of training programmes with regards to hygiene practices awareness and responsibilities, instruction and supervision as well as refresher training can be related to the dairy farm environment

(Weight 15%)

8.2.6. KM-08-KT06: Documentation

Topic elements to be covered include:

- KT0601 Development of a documentation system
- KT0602 Benefits of documentation
- KT0603 Documentation examples and/or templates

Internal Assessment Criteria and Weight

- IAC0601 The importance of a the development of a documentation system and the benefits of documentation can be explained in terms of a sustainable dairy farm business

(Weight 10%)

8.2.7. KM-08-KT07: Standards of and quality control for raw milk

Topic elements to be covered include:

- KT0701 Standard for raw milk
- KT0702 Recommended tests on the farm
- KT0703 Criteria
- KT0704 Possible problem areas referring to micro-organisms in raw milk
- KT0705 Antibiotics of inhibitory substances in raw milk
- KT0706 Off-flavours in raw milk

Internal Assessment Criteria and Weight

- IAC0701 The importance to comply with standards of and quality control for raw milk can be explained by referring to matters such as recommended tests on the dairy farm, possible problem areas referring to micro-organisms in raw milk, antibiotics of inhibitory substances in raw milk and off-flavours in raw milk

(Weight 15%)

8.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

8.4 Exemptions

- None recognised

9. 612102001-KM-09, Dairy farm production management, NQF Level 5, Credits 10

9.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of concepts related to the management of a dairy herd.

The learning will enable learners to demonstrate an understanding of:

- KM-09-KT01: Dairy farm design concepts
- KM-09-KT02: Dairy animal breeding
- KM-09-KT03: Dairy animal nutrition
- KM-09-KT04: Dairy animal health management

9.2 Guidelines for Topics

9.2.1. KM-09-KT01: Dairy farm design concepts

Topic elements to be covered include:

- KT0101 Dairy parlour design and equipment specifications
- KT0102 Waste disposal design
- KT0103 Bio-security facilities design (quarantine camps; access control)
- KT0104 Animal housing and feeding facilities design
- KT0105 Animal handling facilities design
- KT0106 Storage facilities design
- KT0107 Infrastructure design (roads and verges; storm water drainages; wind breaks)
- KT0108 Pasture design

Internal Assessment Criteria and Weight

- IAC0101 Demonstrate an understanding of dairy farm design concepts with regard to the following: dairy parlour; waste disposal; bio-security facilities; animal housing, feeding and handling facilities; storage facilities; infrastructure and pasture

(Weight 20%)

9.2.2. KM-09-KT02: Dairy animal breeding

Topic elements to be covered include:

- KT0201 Breeding management systems (AI and natural)
- KT0202 AI programme and equipment management
- KT0203 Breeding policy (breed standards; Best Linear Unbiased Prediction (BLUP))
- KT0204 Breeding and herd improvement principles

- KT0205 Computer based breeding programmes
- KT0206 Value of milk recording information regarding breeding

Internal Assessment Criteria and Weight

- IAC0201 Demonstrate an informed understanding of breeding management systems with reference to natural as well as AI programme and equipment management
- IAC0202 Demonstrate an informed understanding of the breeding policy with reference to breed standards and Best Linear Unbiased Prediction (BLUP)
- IAC0203 Demonstrate understanding of breeding and herd improvement principles and concepts
- IAC0204 Explain the importance and use of computer based breeding programmes
- IAC0205 Explain the value of milk recording information regarding breeding decisions

(Weight 30%)

9.2.3. KM-09-KT03: Dairy animal nutrition

Topic elements to be covered include:

- KT0301 Basic principles of feeds and feeding
- KT0302 Procurement, quality and stock control
- KT0303 Animal nutrition management according to production
- KT0304 Fodder flow programme management
- KT0305 The role and importance of the animal nutritionist as part of the management team
- KT0306 Computer based nutrition programmes
- KT0307 Value of milk recording information regarding feeding

Internal Assessment Criteria and Weight

- IAC0301 Demonstrate an informed understanding of the basic principles of feeds and feeding
- IAC0302 Explain the importance of procurement, quality and stock control with regards to dairy animal nutrition
- IAC0303 Demonstrate an informed understanding of the relevance of animal nutrition management according to production
- IAC0304 Demonstrate an informed understanding of the principles of fodder flow programme management
- IAC0305 Discuss the role and importance of the animal nutritionist as part of the management team
- IAC0306 Explain the importance and use of computer based feeding programmes
- IAC0307 Explain the value of milk recording information regarding feeding decisions

(Weight 25%)

9.2.4. KM-09-KT04: Dairy animal health management

Topic elements to be covered include:

- KT0401 Basic principles of animal health management
- KT0402 The role and importance of the veterinarian as part of the management team
- KT0403 Procurement, quality and stock control of vaccines, drugs, medication and supplements
- KT0404 The importance of an animal health and bio-security programmes
- KT0405 Computer based animal health programmes
- KT0406 Value of milk recording information regarding animal health

Internal Assessment Criteria and Weight

- IAC0401 Demonstrate an informed understanding of the basic principles of animal health management
- IAC0402 Explain the role and importance of the veterinarian as part of the management team
- IAC0403 Demonstrate an informed understanding of the importance of and procedures for the procurement, quality and stock control of vaccines, drugs, medication and supplements
- IAC0404 Demonstrate an informed understanding of the importance of an animal health and bio-security programmes
- IAC0405 Explain the importance and use of computer based animal health programmes
- IAC0406 Explain the value of milk recording information regarding animal health programmes

(Weight 25%)

9.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

9.4 Exemptions

- None recognised

10. 612102001-KM-10, Farm business management, NQF Level 5, Credits 10

10.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of concepts related to the management of a dairy herd.

The learning will enable learners to demonstrate an understanding of:

- KM-10-KT01: Farm business management
- KM-10-KT02: Farm labour management
- KM-10-KT03: Financial and stock management
- KM-10-KT04: Natural resource management
- KM-10-KT05: Introductory overview of dairy farming related legislation

10.2 Guidelines for Topics

10.2.1. KM-10-KT01: Farm business management

Topic elements to be covered include:

- KT0101 Farm management structure (organogram)
- KT0102 Dairy farm industry (marketing and consumer trends)
- KT0103 Organising, directing and controlling concepts
- KT0104 Decision making and problem solving
- KT0105 Planning and scheduling
- KT0106 Productivity and continuous improvement
- KT0107 Quality management (Global GAP, Good Agricultural Practice)

Internal Assessment Criteria and Weight

- IAC0101 Explain the farm management structure with reference to the farm specific organogram
- IAC0102 Discuss trends in the dairy farm industry with reference to marketing and consumer trends
- IAC0103 Explain basic management concepts such as: organising, directing, controlling, decision making, problem solving; planning and scheduling
- IAC0104 Illustrate productivity and continuous improvement with examples from own work environment
- IAC0105 Discuss Good Agricultural Practice with reference to the following: animal health; milking hygiene; animal feeding and water; animal welfare; environment

(Weight 25%)

10.2.2. KM-10-KT02: Farm labour management

Topic elements to be covered include:

- KT0201 Industrial relations (unions)
- KT0202 Farm code of conduct and disciplinary procedures
- KT0203 Performance management systems
- KT0204 Contracts and job descriptions
- KT0205 Health and safety management
- KT0206 Personnel development (induction, training, coaching and mentoring)
- KT0207 Employment wellness (HIV and Aids)
- KT0208 The role and importance of the labour consultant as part of the management team

Internal Assessment Criteria and Weight

- IAC0201 Discuss farm labour management with reference to the following: industrial relations; performance management systems; contracts and job descriptions; health and safety
- IAC0202 Discuss farm code of conduct and disciplinary procedures and illustrated concepts with examples from own work environment
- IAC0203 Discuss the importance of personnel development with reference to induction, training, coaching and mentoring
- IAC0204 Discuss employment wellness and illustrated concepts with examples from own work environment and reference to HIV and Aids
- IAC0205 Explain the role and importance of the labour consultant as part of the management team

(Weight 25%)

10.2.3. KM-10-KT03: Financial and stock management

Topic elements to be covered include:

- KT0301 Financial terms and accounting concepts
- KT0302 Budgeting concepts (forecasting stock needs and required order quantities)
- KT0303 Cost management (production cost and cost of stock)
- KT0304 Basic principles of financial reports
- KT0305 Stock management (storage of stock on hand, reordering levels and stock flow concepts)
- KT0306 Computer based financial and stock management programmes
- KT0307 The role and importance of the financial advisor as part of the management team

Internal Assessment Criteria and Weight

- IAC0301 Explain the farm managers role in the control of costs and budgets
- IAC0302 Explain information presented in financial reports

- IAC0303 Analyse and present financial information for budgeting purposes

(Weight 20%)

10.2.4. KM-10-KT04: Natural resource management

Topic elements to be covered include:

- KT0401 Ecological cycles
- KT0402 Water conservation
- KT0403 Waste management
- KT0404 Natural disaster management

Internal Assessment Criteria and Weight

- IAC0401 Demonstrate an understanding of natural resource management with reference to the following: ecological cycles; water conservation; waste and natural disaster management

(Weight 20%)

10.2.5. KM-10-KT05: Introductory overview of dairy farming related legislation

Topic elements to be covered include:

- KT0501 Employment legislation (statutes and regulatory requirements)
- KT0502 Occupational Health and Safety Act (OHSA)
- KT0503 Environmental legislation
- KT0504 Agricultural products standards Act (Act 119 of 1990)
- KT0505 Health Act 61 of 2003 (regulation 1256, regulation 918)
- KT0506 Foodstuffs, cosmetics and disinfectant Act (Act 54 of 1972) regulation R1555
- KT0507 SANS 1841; trade metrology Act (Act 77 of 1973)
- KT0508 Value added tax Act (VAT) No. 89 of 1991- part B - zero rates
- KT0509 Livestock protection Act
- KT0510 Livestock identification Act
- KT0511 Fire Act

Internal Assessment Criteria and Weight

- IAC0501 Demonstrate an basic understanding of the legislation applicable to a dairy farm, and illustrated with examples from own work environment

(Weight 10%)

10.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

10.4 Exemptions

- None

11. 612102001-KM-11, Pasture management, NQF Level 5, Credits 12

11.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of concepts related to the management of a dairy farm pastures.

The learning will enable learners to demonstrate an understanding of:

- KM-11-KT01: Introduction to the concepts of cultivated pastures in South African dairy farms
- KM-11-KT02: Farm planning
- KM-11-KT03: Pastures and fodder flow
- KM-11-KT04: Principles of grazing management
- KM-11-KT05: Nutritional value of green pastures
- KM-11-KT06: Health risks of dairy cattle on pastures

11.2 Guidelines for Topics

11.2.1. KM-11-KT01: Introduction to the concepts of cultivated pastures in South African dairy farms

Topic elements to be covered include:

- KT0101 The need for increased production
- KT0102 The potential role of pastures in different types of veld
- KT0103 The economic role of cultivated pastures

Internal Assessment Criteria and Weight

- IAC0101 Important concepts of cultivated pastures in South African dairy farms can be explained with regards to matters such as the need for increased production, the potential role of pastures in different types of veld as well as the economic role of cultivated pastures

(Weight 15%)

11.2.2. KM-11-KT02: Farm planning

Topic elements to be covered include:

- KT0201 Assessment of natural resources
- KT0202 Physical development

Internal Assessment Criteria and Weight

- IAC0201 Farm planning can be discussed with reference to the following: assessment of natural resources and the physical development of pastures on a dairy farm

(Weight 15%)

11.2.3. KM-11-KT03: Pastures and fodder flow

Topic elements to be covered include:

- KT0301 Pasture types, establishment and maintenance
- KT0302 Establishment and maintenance of pastures
- KT0303 Fodder flow planning

Internal Assessment Criteria and Weight

- IAC0301 Pasture types can be identified and the establishment and maintenance of pastures on a dairy farm can be explained
- IAC0302 The importance of fodder flow planning can be described by quoting real life examples

(Weight 20%)

11.2.4. KM-11-KT04: Principles of grazing management

Topic elements to be covered include:

- KT0401 Plant growth and response to defoliation
- KT0402 Animal- plant interaction
- KT0403 Grazing management
- KT0404 Seed production
- KT0405 Regeneration of degraded pastures

Internal Assessment Criteria and Weight

- IAC0401 Principles of grazing management can be explained with regards to the following: animal-plant interaction, plant growth and response to defoliation as well as regeneration of degraded pastures and seed production

(Weight 20%)

11.2.5. KM-11-KT05: Nutritional value of green pastures

Topic elements to be covered include:

- KT0501 Dry matter intake (DMI)
- KT0502 Nutrient quality of pastures
- KT0503 Supplementary feeding
- KT0504 Economics of supplementary feeding

Internal Assessment Criteria and Weight

- IAC0501 The nutritional value of green pastures can be explained in relation to dairy farming
- IAC0502 DMI and supplementary feeding can be explained with regards to its importance as well as the economic impact it has on a dairy enterprise

(Weight 15%)

11.2.6. KM-11-KT06: Health risks of dairy cattle on pastures

Topic elements to be covered include:

- KT0601 Nutrition
- KT0602 Internal parasites
- KT0603 Plant poisonings and mycotoxicoses
- KT0604 Water quality

Internal Assessment Criteria and Weight

- IAC0601 Health risks of dairy cattle on pastures can be identified and explained with regards to the following: nutrition, internal parasites, plant poisonings and mycotoxicoses as well as water quality

(Weight 15%)

11.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Learning resources approved by the QCTO appointed AQP
- Assessment documentation, instruments and standards approved by the QCTO appointed AQP

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

11.4 Exemptions

- None

SECTION 3B: PRACTICAL SKILL MODULE SPECIFICATIONS

List of Practical Skill Module Specifications

- 612102001-PM-01, Perform calf and heifer rearing, production and health care practices, NQF Level 3, Credits 9
- 612102001-PM-02, Perform animal production and health care practices of cows and bulls, NQF Level 3, Credits 9
- 612102001-PM-03, Prepare feed and feed cows in milk, NQF Level 3, Credits 9
- 612102001-PM-04, Harvest milk, attend to milk parlour hygiene and equipment, NQF Level 3, Credits 9
- 612102001-PM-05, Attend to dairy parlour water treatment and waste water, NQF Level 3, Credits 4
- 612102001-PM-06, Initiate and maintain first line discipline, NQF Level 4, Credits 7
- 612102001-PM-07, Lead and direct work teams, NQF Level 4, Credits 7
- 612102001-PM-08, Keep dairy farm records, NQF Level 4, Credits 7
- 612102001-PM-09, Attend to concepts related to the dairy code of good practise for milk producers, NQF Level 4, Credits 7
- 612102001-PM-10, Attend to dairy herd management activities, NQF Level 5, Credits 8
- 612102001-PM-11, Attend to milk parlour management activities, NQF Level 5, Credits 10
- 612102001-PM-12, Attend to farm business management activities, NQF Level 5, Credits 10
- 612102001-PM-13, Attend to pasture management activities, NQF Level 5, Credits 10

1. 612102001-PM-01, Perform calf and heifer rearing, production and health care practices, NQF Level 3, Credits 9

1.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills required to handle and perform calf and heifer rearing, production and health care practises in a controlled learning environment on a dairy farm.

The learner will be required to:

- PM-01-PS01: Perform calf rearing and production practices
- PM-01-PS02: Perform a systematic health inspection of the calf and heifer
- PM-01-PS03: Administer basic animal health treatments on calves and heifers
- PM-01-PS04: Select and prepare heifers for AI or natural breeding

1.2 Guidelines for Practical Skills

1.2.1. PM-01-PS01: Perform calf rearing and production practices

Scope of Practical Skill

Given calves, a controlled learning environment, fully equipped and conducive for practical training in calf rearing and production practices, the learner must be able to:

- PA0101 Observe and provide support to newly born dairy calves
- PA0102 Match a new born calf with the cow
- PA0103 Observe early suckling behaviour and ensure colostrum intake
- PA0104 Prepare milk substitute or milk, and feed calves
- PA0105 Prepare and distribute supplementary feeds
- PA0106 Restrain calves and insert a stomach tube
- PA0107 Restrain calves, remove accessory teats and treat wounds
- PA0108 Prepare identification application equipment, restrain calves and apply calf identification
- PA0109 Restrain calves, prepare for and disinfect the navel
- PA0110 Restrain calves, perform castration and apply post castration treatments
- PA0111 Restrain calves, perform dehorning and treat wounds caused by dehorning
- PA0112 Weigh calves and record weights
- PA0113 Collect and record calf records
- PA0114 Clean and sanitise personal protective equipment and hands
- PA0115 Clean, sanitise and attend to calf housing facilities
- PA0116 Clean and sanitise feeding equipment

Applied Knowledge

- AK0101 Normal behaviour of the new born calves
- AK0102 Suckling behaviour
- AK0103 Signs of physical and health problems
- AK0104 Sanitary/hygiene standards of calf rearing

Internal Assessment Criteria

- IAC0101 Calves are physically handled during application of a treatment in a non-harming way
- IAC0102 Treatments are applied according to accepted practice/prescription
- IAC0103 Personal protective equipment and hands; calf housing facilities and feeding equipment are cleaned and sanitized according to standards
- IAC0104 Calf records are completed according to standards
- IAC0105 New born calves can be matched with the correct cow and early suckling behaviour to ensure colostrum intake, can be established
- IAC0106 Calves can be fed with milk or milk substitute and supplementary feed can be prepared and/or distributed

1.2.2. PM-01-PS02: Perform a systematic health inspection of the calf and heifer

Scope of Practical Skill

Given calves and heifers, the learner must be able to:

- PA0201 Recognise visual signs of the general health status and report
- PA0202 Take the temperature of the calf and heifer with a thermometer
- PA0203 Inspect calf and heifer for internal and external parasites and report

Applied Knowledge

- AK0201 Visual signs of a healthy animal
- AK0202 Procedures for taking temperatures with a thermometer
- AK0203 Internal and external parasites

Internal Assessment Criteria

- IAC0201 Visual signs of the general health status of calves and heifers at different ages can be identified and reported on
- IAC0202 The temperature of the calf and heifer can be taken with a thermometer according to procedure and without harming the animal
- IAC0203 Internal and external parasites can be identified during health inspection of calf and heifer

1.2.3. PM-01-PS03: Administer basic animal health treatments on calves and heifers

Scope of Practical Skill

Given calves and heifers, a controlled learning environment, fully equipped and conducive for practical training in basic animal health treatments on calves and heifers, veterinary equipment and remedies, the learner must be able to:

- PA0301 Restrain the calf and heifer and apply subcutaneous health care treatment
- PA0302 Restrain the calf and heifer and apply intra-muscular health care treatments
- PA0303 Restrain the calf and heifer and apply eye health care treatments
- PA0304 Restrain the calf and heifer and apply hoof health care treatments
- PA0305 Restrain the calf and heifer and administer a vaccine with an automatic syringe
- PA0306 Restrain the calf and heifer and administer an oral remedy for internal parasite control
- PA0307 Restrain the calf and heifer and apply the parasite control product through pour- on
- PA0308 Restrain the calf and heifer and apply the external parasite control product through spraying
- PA0309 Restrain the calf and heifer and apply the external parasite control product through spot treatment
- PA0310 Care for and sanitise general veterinary equipment
- PA0311 Calibrate and sanitise a dosing gun
- PA0312 Calibrate and sterilise the vaccinator
- PA0313 Disposal of used and expired drugs, containers and veterinary equipment
- PA0314 Inspect storage condition and stocks of remedies and report
- PA0315 Apply fly control media

Applied Knowledge

- AK0301 Ways to restrain the calf and heifer without harming the animal
- AK0302 Application methods for various healthcare treatments
- AK0303 Handling procedures of drugs, remedies and veterinary equipment

Internal Assessment Criteria

- IAC0301 Calves and heifers are restrained without harming the animal and health care treatments applied according to standard
- IAC0302 Drugs, remedies and veterinary equipment are handled according to procedures
- IAC0303 Fly control is dealt with effectively

1.2.4. PM-01-PS04: Select and prepare heifers for AI or natural breeding

Scope of Practical Skill

Given heifers, synchronisation and heat detection products and equipment, the learner must be able to:

- PA0401 Identify heifers on heat
- PA0402 Restrain animals and apply synchronisation product
- PA0403 Restrain and inject hormonal product
- PA0404 Apply heat detector

Applied Knowledge

- AK0401 Signs and/or symptoms of heifers on heat
- AK0402 Products for use with AI
- AK0403 Procedures regarding AI

Internal Assessment Criteria

- IAC0401 Heifers on heat can be identified according to standards
- IAC0402 Animals can be restrained in a non-harming way and relevant AI products applied according to procedures

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Dairy calves and heifers
- Housing and handling facilities
- Veterinary equipment
- Remedies
- Vaccines
- Parasite control products
- Farm infrastructure repair tools and consumables
- Sanitation and cleaning media and equipment

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations
- Personal protective equipment

1.4 Exemptions

- None recognised

2. 612102001-PM-02, Perform animal production and health care practices of cows and bulls, NQF Level 3, Credits 9

2.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain experience in performing animal production and health care practices of cows and bulls

The learner will be required to:

- PM-02-PS01: Perform animal production and feeding practices on dry cows and bulls
- PM-02-PS02: Perform a systematic health inspection of cows and bulls
- PM-02-PS03: Administer basic animal health treatments on dry cows and bulls
- PM-02-PS04: Select and prepare cows for AI or natural breeding

2.2 Guidelines for Practical Skills

2.2.1. PM-02-PS01: Perform animal production and feeding practices on dry cows and bulls

Scope of Practical Skill

Given a dairy herd, a controlled learning environment, fully equipped and conducive for practical training in animal production and feeding practices, the learner must be able to:

- PA0101 Perform condition scoring of dry cows
- PA0102 Weigh and record weight of mature animals
- PA0103 Prepare and provide supplementary concentrated feed
- PA0104 Prepare and distribute licks
- PA0105 Record animal count according to herd composition
- PA0106 Observe and report on natural male breeding behaviour
- PA0107 Observe and report on cows calving
- PA0108 Herd and rotate animals between camps
- PA0109 Repair a valve of a water trough
- PA0110 Repair a leaking water distribution pipe
- PA0111 Repair camp fencing
- PA0112 Perform routine maintenance and repairs on animal handling facilities
- PA0113 Maintain animal housing facilities
- PA0114 Repair farm roads and waterways
- PA0115 Recognise and respond to pollution threats

Applied Knowledge

- AK0101 Condition scoring of dairy animals

- AK0102 Feeding needs of dry cows and bulls
- AK0103 Herd composition and herding practices
- AK0104 Natural male breeding behaviour
- AK0105 Routine maintenance and repairs procedures

Internal Assessment Criteria

- IAC0101 Condition scoring of dry cows can be performed according to standards
- IAC0102 Supplementary concentrated feed can be prepared and licks can be distributed
- IAC0103 Routine maintenance and repairs can be done according to procedures
- IAC0104 Animals can be herd and rotated between camps according to various ages, condition and production
- IAC0105 Male breeding behaviour as well as cows calving can be reported on according to procedures

2.2.2. PM-02-PS02: Perform a systematic health inspection of cows and bulls

Scope of Practical Skill

Given a dairy herd, the learner must be able to:

- PA0201 Recognise visual signs of the general health status and report
- PA0202 Take the temperature of the animal with a thermometer
- PA0203 Inspect the animal for internal and external parasites and report

Applied Knowledge

- AK0201 Visual signs indicating the health status of heifers, cows and bulls
- AK0202 Procedures for taking temperatures with a thermometer
- AK0203 Internal and external parasites

Internal Assessment Criteria

- IAC0201 Visual signs of the general health status of cows and bulls can be identified and reported on
- IAC0202 The temperature of cows and bulls can be taken with a thermometer according to procedure and without harming the animal
- IAC0203 Internal and external parasites can be identified during health inspection of cows and bulls

2.2.3. PM-02-PS03: Administer basic animal health treatments on dry cows and bulls

Scope of Practical Skill

Given a dairy herd, a controlled learning environment, fully equipped and conducive for practical training in basic animal health treatments on a dairy herd, veterinary equipment and remedies, the learner must be able to:

- PA0301 Restrain the animal and apply subcutaneous health care treatment
- PA0302 Restrain the animal and apply intra-muscular health care treatments
- PA0303 Restrain the animal and apply eye health care treatments
- PA0304 Restrain the animal and administer an oral remedy for internal parasite control
- PA0305 Restrain the animal and apply the external parasite control product through spot treatment
- PA0306 Restrain the animal and apply the external parasite control product through spraying
- PA0307 Restrain the animal and apply the parasite control product through pour on
- PA0308 Restrain the animal and administer a vaccine with an automatic syringe
- PA0309 Calibrate and sterilise the vaccinator
- PA0310 Calibrate and sanitise a dosing gun

Applied Knowledge

- AK0301 Ways to restrain cows and bulls without harming the animal
- AK0302 Application methods for various healthcare treatments
- AK0303 Preparation and handling of a vaccinator and dosing gun

Internal Assessment Criteria

- IAC0301 Cows or bulls are restrained without harming the animal and health care treatments applied according to standard
- IAC0302 Drugs, remedies and veterinary equipment are handled according to procedures

2.2.4. PM-02-PS04: Select and prepare cows for AI or natural breeding

Scope of Practical Skill

Given cows, synchronisation and heat detection products and equipment, the learner must be able to:

- PA0401 Identify cows on heat
- PA0402 Restrain animals and apply synchronisation product
- PA0403 Restrain and inject hormonal product
- PA0404 Apply heat detector

Applied Knowledge

- AK0401 Signs and/or symptoms of cows on heat
- AK0402 Products for use with AI

- AK0403 Procedures regarding AI

Internal Assessment Criteria

- IAC0401 Cows on heat can be identified according to standards
- IAC0402 Animals can be restrained in a non-harming way and relevant AI products applied according to procedures

2.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Dairy cows and bulls
- Handling facilities
- Veterinary equipment
- Remedies
- Vaccines
- Parasite control products
- Feed, licks
- Farm infrastructure repair tools and consumables

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations
- Personal protective equipment

2.4 Exemptions

- None recognised

3. 612102001-PM-03, Prepare feed and feed cows in milk, NQF Level 3, Credits 9

3.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to prepare the feed for cows in milk and feed them.

The learner will be required to:

- PM-03-PS01: Prepare, mix and distribute supplementary and concentrated feed
- PM-03-PS02: Monitor feed stock and storage

3.2 Guidelines for Practical Skills

3.2.1. PM-03-PS01: Prepare, mix and distribute supplementary and concentrated feed

Scope of Practical Skill

Given a dairy herd, a controlled learning environment, fully equipped and conducive for practical training in animal production and feeding practices, the learner must be able to:

- PA0101 Attend to the operation of a feed wagon
- PA0102 Identify feed components
- PA0103 Inspect feed troughs and estimate consumption
- PA0104 Remove left over feed, clean troughs and distribute feed
- PA0105 Set scale and weigh off feed components
- PA0106 Add and mix feed components
- PA0107 Visually evaluate feed after mixing
- PA0108 Fill feed wagon to the correct volume
- PA0109 Distribute feed for different production groups
- PA0110 Tend to the feed and water troughs

Applied Knowledge

- AK0101 Supplementary and concentrated feed requirements of cows in milk
- AK0102 Equipment used for feeding cows in milk
- AK0103 Feed consumption

Internal Assessment Criteria

- IAC0101 Feed components can be identified, measured and mixed according to procedures
- IAC0102 Feed wagon and troughs can be tended to according to standards
- IAC0103 Distribution of feed for different production groups can be done according to standards

3.2.2. PM-03-PS02: Monitor feed stock and storage

Scope of Practical Skill

Given a feed store on a dairy farm, a controlled learning environment, fully equipped and conducive for practical training in animal production and feeding practices, the learner must be able to:

- PA0201 Determine stock on hand
- PA0202 Visually estimate feed volumes available
- PA0203 Out-load feed from storage in accordance with the last-in, first-out principle
- PA0204 Feed store housekeeping and bag stacking
- PA0205 Reconcile deliveries to order notes
- PA0206 Execute vermin control in feed stores
- PA0207 Visually inspect feed in storage for mould, rotting and wastage and report

Applied Knowledge

- AK0201 Storage principles for feed stock
- AK0202 Vermin control in feed stores
- AK0203 Visual signs relevant to feed stock storage

Internal Assessment Criteria

- IAC0201 Storage principles are applied in feed store
- IAC0202 Feed stock can be inspected with reference to volumes, wastage, mould and rotting and reported on
- IAC0203 Vermin control in feed stores can be executed according to procedures

3.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Feed and feeding equipment
- Cows in milk

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations
- Personal protective equipment

3.4 Exemptions

- None recognised

4. 612102001-PM-04, Harvest milk, attend to milk parlour hygiene and equipment, NQF Level 3, Credits 9

4.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to harvest milk and attend to milk parlour hygiene and equipment.

The learner will be required to:

- PM-04-PS01: Prepare cows for milking
- PM-04-PS02: Handle lactating cows under treatment
- PM-04-PS03: Handle cows fresh in milk (colostrum)
- PM-04-PS04: Milk cows and maintain milk records
- PM-04-PS05: Attend to the cooling and storage equipment
- PM-04-PS06: Perform dairy parlour hygiene practices
- PM-04-PS07: Clean and care for dairy parlour equipment

4.2 Guidelines for Practical Skills

4.2.1. PM-04-PS01: Prepare cows for milking

Scope of Practical Skill

Given cows in milk, a controlled learning environment, fully equipped and conducive for practical training in harvesting milk, the learner must be able to:

- PA0101 Clean the udder
- PA0102 Use a strip cup to test for mastitis
- PA0103 Collect, label and store milk samples of mastitic quarters of cows
- PA0104 Perform pre-milking teat treatments
- PA0105 Test for high somatic cell counts using the California Mastitis Test
- PA0106 Palpate udders for signs of mastitis

Applied Knowledge

- AK0101 Procedure for preparing cows for milking
- AK0102 Mastitis in cows
- AK0103 Pre-milking teat treatments

Internal Assessment Criteria

- IAC0101 The udder can be cleaned according to procedures
- IAC0102 Mastitis can be identified by using appropriate tests and treated according to standards

4.2.2. PM-04-PS02: Handle lactating cows under treatment

Scope of Practical Skill

Given lactating cows under treatment and treatment remedies, a controlled learning environment, fully equipped and conducive for practical training in handling cows under treatment, the learner must be able to:

- PA0201 Select and sort cows under treatment from the production group
- PA0202 Apply udder treatments
- PA0203 Apply, document and identify dry cow treatments
- PA0204 Harvest milk from treated cows in separate containers

Applied Knowledge

- AK0201 Milk harvesting procedures of cows under treatment
- AK0202 Relevant treatments for lactating as well as dry cows

Internal Assessment Criteria

- IAC0201 Cows under treatment can be selected and sorted
- IAC0202 Relevant treatments can be applied to lactating as well as dry cows according to procedures
- IAC0203 Milk from treated cows is harvested in separate containers

4.2.3. PM-04-PS03: Handle cows fresh in milk (colostrum)

Scope of Practical Skill

Given cows fresh in milk, a controlled learning environment, fully equipped and conducive for practical training in handling cows fresh in milk, the learner must be able to:

- PA0301 Select and sort cows fresh in milk from the production group
- PA0302 Harvest colostrum in separate containers
- PA0303 Place colostrum in storage

Applied Knowledge

- AK0301 Colostrum handling procedures

Internal Assessment Criteria

- IAC0301 Cows fresh in milk can be selected and sorted from the production group
- IAC0302 Colostrum is harvested and stored according to procedures

4.2.4. PM-04-PS04: Milk cows and maintain milk records

Scope of Practical Skill

Given cows in milk, a controlled learning environment, fully equipped and operational dairy parlour, the learner must be able to:

- PA0401 Inspect milking system before milking and report
- PA0402 Attend to personal hygiene requirements before milking
- PA0403 Attach and detach clusters
- PA0404 Apply post-milking teat treatments
- PA0405 Complete daily recording sheet
- PA0406 Take milk recording samples and complete record sheets
- PA0405 Record occurrence of mastitis and udder health problems

Applied Knowledge

- AK0401 Personal hygiene requirements
- AK0402 Pre- and post milking procedures in the dairy parlour
- AK0403 Record keeping procedures in the dairy parlour

Internal Assessment Criteria

- IAC0401 Milking system is inspected before milking according to procedures
- IAC0402 Personal hygiene before milking requirements are met
- IAC0403 Record keeping can be done according to standards
- IAC0404 Clusters can be attached and detached according to standards

4.2.5. PM-04-PS05: Attend to the cooling and storage equipment

Scope of Practical Skill

Given a fully operational dairy parlour, the learner must be able to:

- PA0501 Attend to the operation of milk cooling equipment
- PA0502 Inspect cold chain status of the milk in storage
- PA0503 Sample milk from the bulk tank

Applied Knowledge

- AK0501 Principles of cooling and storing milk in the dairy parlour

Internal Assessment Criteria

- IAC0501 Milk cooling equipment is attended to â□“ making sure it is fully operational
- IAC0502 Cold chain status of the milk in storage can be inspected according to standards
- IAC0503 Milk from the bulk tank can be sampled according to procedure

4.2.6. PM-04-PS06: Perform dairy parlour hygiene practices

Scope of Practical Skill

Given a fully operational dairy parlour, sanitising media and equipment, the learner must be able to:

- PA0601 Prepare sanitation solutions
- PA0602 Clean and sanitize the dairy parlour
- PA0603 Clean and sanitize the milking system
- PA0604 Clean and sanitize the bulk tank
- PA0605 Clean and sanitize other milk storage equipment
- PA0606 Execute insect control

Applied Knowledge

- AK0601 Dairy parlour hygiene practices

Internal Assessment Criteria

- IAC0601 Sanitation solutions can be prepared according to standards
- IAC0602 The dairy parlour, milking system, bulk tank and milk storage equipment can be cleaned and sanitized
- IAC0603 Insect control is executed according to procedures

4.2.7. PM-04-PS07: Clean and care for dairy parlour equipment

Scope of Practical Skill

Given a fully operational dairy parlour, hand tools and replacements parts, the learner must be able to:

- PA0701 Perform routine maintenance of milking system according to specifications
- PA0702 Perform routine maintenance on the milk parlour and handling facilities

Applied Knowledge

- AK0701 Practices of routine maintenance of the milking system, milk parlour and handling facilities

Internal Assessment Criteria

- IAC0701 Routine maintenance of milking system, milk parlour and handling facilities can be done according to specifications

4.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:

- Fully operational dairy parlour
- Hand tools
- Dairy parlour equipment replacement components

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations
- Personal protective equipment

4.4 Exemptions

- None recognised

5. 612102001-PM-05, Attend to dairy parlour water treatment and waste water, NQF Level 3, Credits 4

5.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to attend to dairy parlour water treatment and waste water.

The learner will be required to:

- PM-05-PS01: Perform routine maintenance of the water treatment system
- PM-05-PS02: Perform routine maintenance of the water supply system

5.2 Guidelines for Practical Skills

5.2.1. PM-05-PS01: Perform routine maintenance of the water treatment system

Scope of Practical Skill

Given a dairy parlour, the learner must be able to:

- PA0101 Collect water samples
- PA0102 Apply water treatment
- PA0103 Clean water filters

Applied Knowledge

- AK0101 The water treatment system of a dairy parlour

Internal Assessment Criteria

- IAC0101 Water samples are collected, treatment applied to water and water filters cleaned, according to procedures

5.2.2. PM-05-PS02: Perform routine maintenance of the water supply system

Scope of Practical Skill

Given a dairy parlour, the learner must be able to:

- PA0201 Inspect the milk parlour area for water drainage problems and report
- PA0202 Construct and maintain water drainage channels
- PA0203 Repair leaking water pipes
- PA0204 Repair leaking water taps

Applied Knowledge

- AK0201 The water supply system of a dairy parlour
- AK0202 Maintenance practices and procedures

Internal Assessment Criteria

- IAC0201 Water drainage channels can be constructed and maintained
- IAC0202 Water drainage problems in and around the milk parlour area can be identified and reported on according to procedures
- IAC0203 Leaking water pipes and taps can be repaired according to standards

5.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- A fully operational dairy parlour
- Hand tools
- Material to repair the water system

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations
- Personal protective equipment

5.4 Exemptions

- None recognised

6. 612102001-PM-06, Initiate and maintain first line discipline, NQF Level 4, Credits 7

6.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills related to general supervisory responsibilities.

The learner will be required to:

- PM-06-PS01: Initiate and record discipline
- PM-06-PS02: Address poor performance

6.2 Guidelines for Practical Skills

6.2.1. PM-06-PS01: Initiate and record discipline

Scope of Practical Skill

Given a disciplinary code of conduct and case studies of a range of misconduct, the learner must be able to:

- PA0101 Organise misconduct in terms of seriousness
- PA0102 Determine the appropriate disciplinary action that must be initiated
- PA0103 Participate in various roles in a simulated disciplinary hearing
- PA0104 Record disciplinary actions

Applied Knowledge

- AK0101 Practices and formats for administrating and recording disciplinary actions
- AK0102 Codes of practice: Discipline

Internal Assessment Criteria

- IAC0101 The principles related to administrative and documentary requirements for disciplinary procedures can be explained
- IAC0102 Interaction during the various role plays shows a clear understanding of the requirements of the roles and the disciplinary process

6.2.2. PM-06-PS02: Address poor performance

Scope of Practical Skill

Given scenarios and case studies of a range of performance related problems, including problems caused by poor skills, lack of resources and misconduct, the learner must be able to:

- PA0201 Recognise the cause of the performance problem
- PA0202 Motivate appropriate corrective action

Applied Knowledge

- AK0201 Codes of conduct: Poor performance

Internal Assessment Criteria

- IAC0201 The cause of a range of performance related problems can be identified
- IAC0202 Corrective measures are formulated to address the problem

6.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Simulated case studies

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

6.4 Exemptions

- None recognised

7. 612102001-PM-07, Lead and direct work teams, NQF Level 4, Credits 7

7.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills related to general supervisory responsibilities.

The learner will be required to:

- PM-07-PS01: Perform a safety inspection
- PM-07-PS02: Plan and allocate work
- PM-07-PS03: Coach team members
- PM-07-PS04: Provide feedback on performance
- PM-07-PS05: Conduct a briefing session

7.2 Guidelines for Practical Skills

7.2.1. PM-07-PS01: Perform a safety inspection

Scope of Practical Skill

Given an operational dairy farm, the learner must be able to:

- PA0101 Inspect the farm for safety risks
- PA0102 Formulate recommendations to address risks
- PA0103 Explain the risks to personnel health and safety commonly found on a dairy farm

Applied Knowledge

- AK0101 Structured inspection procedures
- AK0102 Safety risks on a dairy farm

Internal Assessment Criteria

- IAC0101 The safety risks on a dairy farm can be explained
- IAC0102 A structured inspection is done and risks to personnel health and safety are identified

7.2.2. PM-07-PS02: Plan and allocate work

Scope of Practical Skill

Given a list of tasks that must be completed within a specific time and a list of subordinates (including subordinate experience and skills), the learner must be able to:

- PA0201 Plan and schedule the work activities
- PA0202 Allocate work to specific persons based on their experience and skills
- PA0203 Issue an instruction on work to be completed

Applied Knowledge

- AK0201 Planning and prioritising
- AK0202 Basic scheduling principles
- AK0203 Formulating clear instructions

Internal Assessment Criteria

- IAC0201 Tasks are allocated to subordinates in terms of their skills profile and work experience
- IAC0202 The execution of tasks are scheduled according to priorities
- IAC0203 Instructions are formulated and communicated in a clear manner
- IAC0204 Understanding of the instruction is confirmed

7.2.3. PM-07-PS03: Coach team members

Scope of Practical Skill

Given a list of tasks, the learner must be able to:

- PA0301 Demonstrate the execution of the task to a subordinate
- PA0302 Allow the subordinate to perform the task under guidance
- PA0303 Correct the subordinate when erring in the execution of the task
- PA0304 Allow the subordinate to perform the task on his/her own, while being observed

Applied Knowledge

- AK0301 Basic coaching principles

Internal Assessment Criteria

- IAC0301 Tasks are demonstrated and explained
- IAC0302 The execution of tasks by the subordinate is observed and corrected when necessary

7.2.4. PM-07-PS04: Provide feedback on performance

Scope of Practical Skill

Given a simulated performance feedback session, the learner must be able to:

- PA0401 Provide constructive feedback on performance levels
- PA0402 Explain improvement areas where required
- PA0403 Give recognition for good performance

Applied Knowledge

- AK0401 Performance review and feedback principles

Internal Assessment Criteria

- IAC0401 Positive, constructive interaction between the supervisor and the subordinate is evident
- IAC0402 Clear explanations are given to questions raised by the subordinate
- IAC0403 Improvement areas are described as achievable targets
- IAC0404 Good performance is recognised and commented on

7.2.5. PM-07-PS05: Conduct a briefing session

Scope of Practical Skill

Given a simulated briefing session, the learner must be able to:

- PA0501 Explain the content of a management briefing note to a group of subordinates
- PA0502 Confirm understanding of main points communicated
- PA0503 Encourage questions and respond
- PA0504 Provide feedback to management on the outcome of the briefing session

Applied Knowledge

- AK0501 Briefing principles

Internal Assessment Criteria

- IAC0501 Positive, constructive interaction between the supervisor and the subordinate is evident
- IAC0502 Main communication points are identified, explained and understanding is confirmed
- IAC0503 Clear explanations are given to questions raised by the subordinate
- IAC0504 Feed back to management is accurate and complete

7.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Simulated case studies

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

7.4 Exemptions

- None recognised

8. 612102001-PM-08, Keep dairy farm records, NQF Level 4, Credits 7

8.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills related to general dairy records keeping and administration.

The learner will be required to:

- PM-08-PS01: Collect information and compile dairy parlour records
- PM-08-PS02: Administer dairy parlour records

8.2 Guidelines for Practical Skills

8.2.1. PM-08-PS01: Collect information and compile dairy parlour records

Scope of Practical Skill

Given an operational dairy farm, the learner must be able to:

- PA0101 Collect information for recording
- PA0102 Record data accurately on data recording sheets
- PA0103 Recognise problem areas and report

Applied Knowledge

- AK0101 Use of records
- AK0102 Importance of accurate data

Internal Assessment Criteria

- IAC0101 Record sheets are completed accurately and comprehensively

8.2.2. PM-08-PS02: Administer dairy parlour records

Scope of Practical Skill

Given farm records, the learner must be able to:

- PA0201 Compile a filling index for farm record administration
- PA0202 Organise records in a filing system
- PA0203 Organise old records in a document archive

Applied Knowledge

- AK0201 Filling systems
- AK0202 Essential record
- AK0203 Statutory requirements on keeping historical documents

Internal Assessment Criteria

- IAC0201 The filing systems is functional and allows for ease of document retrieval

8.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Dairy parlour records

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

8.4 Exemptions

- None recognised

9. 612102001-PM-09, Attend to concepts related to the dairy code of good practise for milk producers, NQF Level 4, Credits 7

9.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to practical skills related to the code of good practice for milk producers in the dairy industry.

The learner will be required to:

- PM-09-PS01: Identify structural requirements and perform machine maintenance
- PM-09-PS02: Perform recommendations for good milking practices
- PM-09-PS03: Perform recommendations for animal health and welfare practices
- PM-09-PS04: Perform general and dairy farm specific hygiene practices
- PM-09-PS05: Assist with administration of dairy farm specific documentation

9.2 Guidelines for Practical Skills

9.2.1. PM-09-PS01: Identify structural requirements and perform machine maintenance

Scope of Practical Skill

Given an operational dairy farm, the learner must be able to:

- PA0101 Identify the general requirements for the milking shed
- PA0102 Identify the general requirements for the milking parlour
- PA0103 Identify the general requirements for the milk room
- PA0104 Assist with or perform maintenance of milking equipment in the milking parlour
- PA0105 Assist with or perform maintenance on milk storage and cooling equipment in the milk room
- PA0106 Identify and promote the implementation of Good dairy farming practices with regards to the environment
- PA0107 Identify and promote the implementation of Good dairy farming practices with regards to the milking parlour
- PA0108 Identify and promote the implementation of Good dairy farming practices with regards to the milk room

Applied Knowledge

- AK0101 General requirements of Good farming practices related to the dairy milking environment
- AK0102 Maintenance equipment

Internal Assessment Criteria

- IAC0101 Structures on the dairy farm meet requirements and if not, gaps can be identified
- IAC0102 Dairy farm machine maintenance can be performed

9.2.2. PM-09-PS02: Perform recommendations for good milking practices

Scope of Practical Skill

Given an operational dairy farm, the learner must be able to:

- PA0201 Provide a clean, low-stress environment for cows
- PA0202 Prepare the udder according to recommendations
- PA0203 Ensure personal hygiene according to requirements
- PA0204 Check the foremilk
- PA0205 Attach the milking unit
- PA0206 Adjust units for proper alignment
- PA0207 Shut off the vacuum before removing the unit
- PA0208 Hand milk according to requirements
- PA0209 Use teat dip effectively

Applied Knowledge

- AK0201 Importance of applying recommendations for good milking practices

Internal Assessment Criteria

- IAC0201 Good milking practices are adhered to in the milking parlour of milking shed

9.2.3. PM-09-PS03: Perform recommendations for animal health and welfare practices

Scope of Practical Skill

Given an operational dairy farm, the learner must be able to:

- PA0301 Assist with pro-active health management of the herd
- PA0302 Assist with routine treatment of common diseases on the dairy farm
- PA0303 Assist with treatment protocols and complete written records according to dairy farm specific requirements
- PA0304 Assist with a vaccination protocol that outlines the recommended vaccination procedures for each management group in the herd
- PA0305 Assist with putting measures into place to ensure that dairy animals, of which the milk is destined for human consumption, are free from contagious diseases such as TB and Brucellosis
- PA0306 Assist with identification and implementation of a number of key management issues to maintain udder health
- PA0307 Identify potential hazards regarding feed and water of the dairy animals and assist with implementation of action steps to avoid it

- PA0308 Identify and assist with application of the "five freedoms" that should underpin best farm practice in relation to animal welfare

Applied Knowledge

- AK0301 Treatment and vaccination protocols
- AK0302 Official declarations
- AK0303 Potential hazards
- AK0304 Best farm practices

Internal Assessment Criteria

- IAC0301 Bulls and semen as well as cows and heifers can be selected according to breeding policy
- IAC0302 Annual breeding for dairy heifers and lactating cows can be scheduled
- IAC0303 Breeding and fertility results as well as heifer data achieved against targets can be evaluated and recommendations formulated
- IAC0304 Data of computerised system can be captured and interpreted and recommended activities can be applied
- IAC0305 Deviations can be identified and corrective actions can be taken according to procedures
- IAC0306 A semen handling, storage and stock control protocol can be drafted

9.2.4. PM-09-PS04: Perform general and dairy farm specific hygiene practices

Scope of Practical Skill

Given an operational dairy farm, the learner must be able to:

- PA0401 Assist with implementation and maintenance of effective hygiene requirements and employee hygiene practices
- PA0402 Assist with and/or perform an effective cleaning and disinfection program for the milking shed
- PA0403 Assist with and/or perform cleaning operations strictly according to a carefully worked out procedure in order to attain the required degree of cleanliness
- PA0404 Identify factors influencing the effectiveness of the cleaning program, such as water quality and soil solubility
- PA0405 Assist with and/or perform cleaning procedures and storing of cleaning chemicals in a way that it does not pose a risk for food safety or product quality

Applied Knowledge

- AK0401 Effective hygiene requirements
- AK0402 Effective cleaning and disinfection programs, operations, procedures and cleaning chemicals' storage requirements
- AK0403 Water quality requirements

Internal Assessment Criteria

- IAC0401 General and dairy farm specific hygiene practices and cleaning programs are upheld in all relevant areas of the dairy farm

9.2.5. PM-09-PS05: Assist with administration of dairy farm specific documentation

Scope of Practical Skill

Given an operational dairy farm, the learner must be able to:

- PA0501 Follow the various requirements for documentation to be kept on a dairy farm, such as checklists, schedules and records.
- PA0502 Identify and assist with completion of audit or inspection documentation for milking sheds as recommended by dairy standard agency.
- PA0503 Assist with completion of the milking shed inspection list which will have criteria for the following: milking parlour, the milk room, the staff facilities and the surrounding area

Applied Knowledge

- AK0501 Filling systems
- AK0502 Audit or inspection documentation for milking sheds
- AK0503 Criteria of the milking shed inspection list

Internal Assessment Criteria

- IAC0501 Record sheets are completed accurately and comprehensively
- IAC0502 Audit or inspection documentation are completed accurately and comprehensively
- IAC0503 Unique queries as to establish appropriate actions can be drafted

9.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Milking facilities and surroundings
- Dairy parlour records

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

9.4 Exemptions

- None recognised

10. 612102001-PM-10, Attend to dairy herd management activities, NQF Level 5, Credits 8

10.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills related to dairy herd management activities.

The learner will be required to:

- PM-10-PS01: Implement herd composition objectives
- PM-10-PS02: Implement health care policy
- PM-10-PS03: Implement breeding policy
- PM-10-PS04: Implement feeding policy
- PM-10-PS05: Maintain a data management system

10.2 Guidelines for Practical Skills

10.2.1. PM-10-PS01: Implement herd composition objectives

Scope of Practical Skill

Given herd composition objectives, fodder flow data and milk production targets the learner must be able to:

- PA0101 Draft a herd composition table
- PA0102 Align the herd composition to milk production objectives
- PA0103 Align the herd composition to breeding objectives
- PA0104 Align the herd composition to fodder flow requirements
- PA0105 Recommend corrective actions regarding the deviations according to the ideal norm

Applied Knowledge

- AK0101 Breed standards
- AK0102 Herd composition ratios and norms

Internal Assessment Criteria

- IAC0101 A herd composition table can be drafted accurately and according to requirements
- IAC0102 The herd composition can be aligned to the following: milk production objectives; breeding objectives and fodder flow requirements

10.2.2. PM-10-PS02: Implement health care policy

Scope of Practical Skill

Given a health care policy relevant to the dairy herd the learner must be able to:

- PA0201 Update health care policy and/or protocol in conjunction with the herd veterinarian
- PA0202 Schedule health care treatments according to health protocols

- PA0203 Evaluate disease records against targets and formulate recommendations
- PA0204 Capture and interpret data of computerised system and apply recommended activities
- PA0205 Develop a bio-security monitoring and response procedure
- PA0206 Develop standard workplace instructions for health care practices
- PA0207 Draft a remedy handling, storage and stock control protocol
- PA0208 Evaluate management reports regarding somatic cell counts and formulate recommendations

Applied Knowledge

- AK0201 Bio-security principles
- AK0202 Emergency procedures and treatment according to health care policy
- AK0203 Interpretation and application of milk recording data

Internal Assessment Criteria

- IAC0201 Health care policy and/or protocol can be updated in conjunction with the herd veterinarian
- IAC0202 Health care treatments can be scheduled according to health protocols
- IAC0203 Disease records can be evaluated against targets and recommendations can be formulated
- IAC0204 Capture and interpret data of computerised system and apply recommended activities
- IAC0205 A bio-security monitoring and response procedure as well as standard workplace
- IAC0206 A remedy handling, storage and stock control protocol can be drafted
- IAC0207 Management reports regarding somatic cell counts can be evaluated and recommendations can be formulated

10.2.3. PM-10-PS03: Implement breeding policy

Scope of Practical Skill

- PA0301 Select bulls and semen according to breeding policy
- PA0302 Select heifers and cows according to breeding policy
- PA0303 Schedule annual breeding for dairy heifers and lactating cows
- PA0304 Evaluate breeding results achieved against targets and formulate recommendations
- PA0305 Evaluate fertility results against targets and formulate recommendations
- PA0306 Evaluate heifer data against targets and formulate recommendations
- PA0307 Capture and interpret data of computerised system and apply recommended activities
- PA0308 Take corrective actions regarding the deviations according to procedures
- PA0309 Draft a semen handling, storage and stock control protocol

Applied Knowledge

- AK0301 Interpretation of breeding values
- AK0302 Interpretation and application of milk recording data
- AK0303 Corrective mating concepts
- AK0304 Functional efficiency
- AK0305 Cow reproductive cycle
- AK0306 AI catalogue data interpretation
- AK0307 Deviations from the normal reproductive cycle

Internal Assessment Criteria

- IAC0301 Bulls and semen as well as cows and heifers can be selected according to breeding policy
- IAC0302 Annual breeding for dairy heifers and lactating cows can be scheduled
- IAC0303 Breeding and fertility results as well as heifer data achieved against targets can be evaluated and recommendations formulated
- IAC0304 Data of computerised system can be captured and interpreted and recommended activities can be applied
- IAC0305 Deviations can be identified and corrective actions can be taken according to procedures
- IAC0306 A semen handling, storage and stock control protocol can be drafted

10.2.4. PM-10-PS04: Implement feeding policy

Scope of Practical Skill

- PA0401 Develop a fodder flow program in conjunction with the animal nutritionist
- PA0402 Develop an annual feeding schedule for different age and production groups
- PA0403 Capture and interpret data of computerised system and apply recommended activities
- PA0404 Evaluate growth records of different age groups against targets and formulate recommendations
- PA0405 Evaluate milk production data against targets and formulate recommendations
- PA0406 Align feeding according to production and condition scoring
- PA0407 Interpret farm management reports and formulate recommendations

Applied Knowledge

- AK0401 Feeding norms and standards
- AK0402 Breed growth standards
- AK0403 Interpretation of milk recording data

- AK0404 Toxigenic pastures

Internal Assessment Criteria

- IAC0401 A fodder flow program can be developed in conjunction with the animal nutritionist An annual feeding schedule for different age and production groups can be developed
- IAC0402 Relevant data of computerised system can be captured and interpreted and recommended activities can be applied
- IAC0403 Growth records of different age groups as well milk production data against targets can be evaluated and recommendations can be formulated
- IAC0404 Feeding can be aligned according to production and condition scoring
- IAC0405 Farm management reports can be interpreted and recommendations can be formulated accordingly

10.2.5. PM-10-PS05: Maintain a data management system

Scope of Practical Skill

- PA0501 Capture data on the system and back-up according to policies
- PA0502 Draw standard reports available from the system , interpret and take action accordingly
- PA0503 Draft unique queries as to establish appropriate actions

Applied Knowledge

- AK0501 Data management principles

Internal Assessment Criteria

- IAC0501 Data can be captured on the system and back-up can be done according to policies
- IAC0502 Standard reports available from the system can be drawn and interpreted and action can be implemented accordingly
- IAC0503 Unique queries as to establish appropriate actions can be drafted

10.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Dairy parlour records

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

10.4 Exemptions

- None recognised

11. 612102001-PM-11, Attend to milk parlour management activities, NQF Level 5, Credits 10

11.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills related to dairy parlour management activities.

The learner will be required to:

- PM-11-PS01: Manage milk parlour routines
- PM-11-PS02: Implement milk parlour quality management system

11.2 Guidelines for Practical Skills

11.2.1. PM-11-PS01: Manage milk parlour routines

Scope of Practical Skill

Given a milk parlour, a controlled learning environment, fully equipped and conducive for practical training in dairy parlour management practices, the learner must be able to:

- PA0101 Inspect milking system for functionality and report
- PA0102 Inspect a milk parlour for general hygiene and functionality and report
- PA0103 Develop milk parlour inspection and replacement protocols for daily, weekly, monthly, quarterly and annual inspections
- PA0104 Reconcile production per cow, stock on hand and milk flow
- PA0105 Draw up a daily and weekly milk parlour management, control and activity list
- PA0106 Draw up a milk collection protocol including a contingency plan

Applied Knowledge

- AK0101 Applicable computer programmes
- AK0102 Relevant policies and procedures
- AK0103 Identification of deviations and applicable corrective actions

Internal Assessment Criteria

- IAC0101 A milking system as well as a milk parlour can be inspected for general hygiene and functionality and report can be given on findings
- IAC0102 Milk parlour inspection and replacement protocols for daily, weekly, monthly, quarterly and annual inspections can be developed
- IAC0103 Production per cow, stock on hand and milk flow can be reconciled according to requirements
- IAC0104 A daily and weekly milk parlour management, control and activity list can be compiled
- IAC0105 A milk collection protocol including a contingency plan can be compiled

11.2.2. PM-11-PS02: Implement milk parlour quality management system

Scope of Practical Skill

Given a milk parlour, the learner must be able to:

- PA0201 Evaluate milk parlour hygiene records and formulate recommendations
- PA0202 Evaluate analysis results on milk quality and composition and formulate recommendations
- PA0203 Schedule herd health certification and statutory inspections of the milk parlour
- PA0204 Collect an aseptic milk sample from a bulk tank facility

Applied Knowledge

- AK0201 Identification of deviations and applicable corrective actions
- AK0202 Herd health certification and statutory inspections of the milk parlour

Internal Assessment Criteria

- IAC0201 Milk parlour hygiene records can be evaluated and recommendations formulated accordingly
- IAC0202 Analysis results on milk quality and composition can be evaluated and recommendations formulated accordingly
- IAC0203 Herd health certification and statutory inspections of the milk parlour can be scheduled according to requirements
- IAC0204 An aseptic milk sample can be collected from a bulk tank facility according to protocol

11.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Dairy parlour records

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

11.4 Exemptions

- None recognised

12. 612102001-PM-12, Attend to farm business management activities, NQF Level 5, Credits 10

12.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills related to dairy parlour management activities.

The learner will be required to:

- PM-12-PS01: Control operational costs
- PM-12-PS02: Manage farm labour
- PM-12-PS03: Manage farm records
- PM-12-PS04: Manage stock and assets

12.2 Guidelines for Practical Skills

12.2.1. PM-12-PS01: Control operational costs

Scope of Practical Skill

- PA0101 Read and interpret cash flow budget
- PA0102 Compile a cost list of key consumables from different suppliers
- PA0103 Compile inputs for budgeting purposes
- PA0104 Compile a monthly income and expenditure statement/report
- PA0105 Calculate production cost per input on a quarterly basis
- PA0106 Calculate a break-even point for cows in production
- PA0107 Calculate production costs per litre of milk
- PA0108 Manage financial source documents

Applied Knowledge

- AK0101 Efficient milk production principles
- AK0102 Cost calculations
- AK0103 Financial concepts

Internal Assessment Criteria

- IAC0101 Cash flow budget can be read and interpreted
- IAC0102 The following can be compiled: a cost list of key consumables from different suppliers; inputs for budgeting purposes; a monthly income and expenditure statement/report
- IAC0103 The following can be calculated: production cost per input on a quarterly basis; production cost per liter of milk
- IAC0104 Financial source documents can be managed according to protocol

12.2.2. PM-12-PS02: Manage farm labour

Scope of Practical Skill

- PA0201 Develop a job description for a specific position
- PA0202 List the skills required for key positions on the dairy farm
- PA0203 Develop performance objectives
- PA0204 Develop a service, leave and shift schedule
- PA0205 Draft a heath and safety inspection sheet and record of incidents (OHSA)
- PA0206 Compile personnel records
- PA0207 Compile a monthly HR management report
- PA0208 Conduct a simulated recruitment interview
- PA0209 Conduct a simulated disciplinary hearing for misconduct
- PA0210 Conduct a simulated induction session with a new employee
- PA0211 Conduct a simulated meeting with subordinates

Applied Knowledge

- AK0201 Job descriptions
- AK0202 Performance objectives
- AK0203 Health and safety inspections and reports
- AK0204 Personnel records
- AK0205 Recruitment practices
- AK0206 Induction practices
- AK0207 Disciplinary protocols
- AK0208 Meeting procedures

Internal Assessment Criteria

- IAC0201 A job description as required per position can be developed
- IAC0202 Skills can be listed for key positions
- IAC0203 Performance objectives can be drafted
- IAC0204 A service, leave and shift schedule can be developed
- IAC0205 Health and safety inspections can be executed according to OHSA and record of incidents can be kept
- IAC0206 Personnel records can be kept according to standards

- IAC0207 Monthly HR reports can be compiled according to requirements
- IAC0208 Recruitment interviews are conduct according to accepted practices
- IAC0209 Disciplinary interviews are conducted according to accepted protocols
- IAC0210 Meeting are productive and conducted according to accepted practices

12.2.3. PM-12-PS03: Manage farm records

Scope of Practical Skill

- PA0301 Analyse, interpret and integrate farm records to holistically resolve problems
- PA0302 Compile a dairy production, financial, HR and OHS report
- PA0303 Develop a filing and back-up system

Applied Knowledge

- AK0301 Interpretation of farm records to optimise efficiency
- AK0302 Administrative principles

Internal Assessment Criteria

- IAC0301 Farm records can be analysed, interpreted and integrated to holistically resolve problems
- IAC0302 A dairy production, financial, HR and OHS report can be compiled
- IAC0303 A filing and back-up system can be developed

12.2.4. PM-12-PS04: Manage stock and assets

Scope of Practical Skill

- PA0401 Develop minimum stock levels for critical stock
- PA0402 Reconcile deliveries with stock orders and usage
- PA0403 Plan and schedule weekly, monthly and annual stock taking
- PA0404 Schedule deliveries of consumable stock
- PA0405 Draft a stores protocol for feed, veterinary remedies, chemicals and other consumables
- PA0406 Complete a stock order form
- PA0407 Compile and update a livestock register
- PA0408 Compile and update an asset register
- PA0409 Manage disposal of livestock and assets according to protocol
- PA0410 Execute maintenance plan according to protocol

Applied Knowledge

- AK0401 Cost effective management and maintenance of stock and assets

Internal Assessment Criteria

- IAC0401 Minimum stock levels for critical stock can be developed
- IAC0402 Deliveries can be reconciled with stock orders and usage
- IAC0403 Weekly, monthly and annual stock taking can be planned and scheduled
- IAC0404 Deliveries of consumable stock can be scheduled according to requirements
- IAC0405 A stores protocol for feed, veterinary remedies, chemicals and other consumables
- IAC0406 A stock order form can be completed according to protocol
- IAC0407 A livestock as well as an asset register can be compiled and updated
- IAC0408 Disposal of livestock and assets can be managed according to protocol
- IAC0409 Maintenance plan can be executed according to protocol

12.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Dairy parlour records

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

12.4 Exemptions

- None

13. 612102001-PM-13, Attend to pasture management activities, NQF Level 5, Credits 10

13.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to gain practical skills related to pasture establishment and management activities.

The learner will be required to:

- PM-13-PS01: Assess natural resources
- PM-13-PS02: Develop physical aspects for pasture establishment
- PM-13-PS03: Establish and maintain pastures
- PM-13-PS04: Plan fodder flow and grazing programmes
- PM-13-PS05: Manage nutrition of dairy animals on pastures
- PM-13-PS06: Manage health risks of dairy cattle on pastures

13.2 Guidelines for Practical Skills

13.2.1. PM-13-PS01: Assess natural resources

Scope of Practical Skill

- PA0101 Interpret aerial photographs and maps as well as topography of the farm with relation to possible pastures
- PA0102 Interpret bio-climatic information
- PA0103 Identify and/or analyse soil in terms of the following: soil types, texture, fertility, slope of the soil and soil profile
- PA0104 Identify non-arable grazing areas

Applied Knowledge

- AK0101 Aerial photography and topography maps
- AK0102 Bio-climatic conditions
- AK0103 Soil characteristics

Internal Assessment Criteria

- IAC0101 Natural resources can be assessed with regards to the establishment of pastures on a dairy farm

13.2.2. PM-13-PS02: Develop physical aspects for pasture establishment

Scope of Practical Skill

- PA0201 Physical features with regards to pasture establishment, such as the following: fencing, camps and walkways, watering points, storage facilities for conserved fodder as well as irrigation water sources and facilities

- PA0202 Erosion with regards to the prevention of erosion as well as the control of erosion control.
- PA0203 Soil preparation for pasture establishment

Applied Knowledge

- AK0201 Physical features required for pasture establishment
- AK0202 Requirements for preparing soil for pasture establishment, including erosion management

Internal Assessment Criteria

- IAC0201 All the physical aspects for pasture establishment are taken care of

13.2.3. PM-13-PS03: Establish and maintain pastures

Scope of Practical Skill

- PA0301 Preparation of the seedbed
- PA0302 Time of sowing
- PA0303 Establishment methods
- PA0304 Seeding rates and pasture mixtures
- PA0305 Fertilisation of pastures
- PA0306 Irrigation of pastures
- PA0307 Weed control

Applied Knowledge

- AK0301 Seed suitable for pasture establishment and its characteristics
- AK0302 Fertilisation practices
- AK0303 Irrigation practices

Internal Assessment Criteria

- IAC0301 Pastures can be established and maintained

13.2.4. PM-13-PS04: Plan fodder flow and grazing programmes

Scope of Practical Skill

- PA0401 Fodder flow with regards to the following: animal production - livestock fodder requirements, forage production and feed budgeting, economic matters as well as the implementation.
- PA0402 Measurement of pasture dry matter production
- PA0403 Grazing programs with regards to the following: type of grazing program as well as the stocking rate

- PA0404 Seed production, with regards to harvesting and seed drying
- PA0405 Regeneration of degraded pastures

Applied Knowledge

- AK0401 Fodder flow concepts applicable to dairy cattle
- AK0402 Variety of grazing programmes

Internal Assessment Criteria

- IAC0401 Fodder flow can be planned, implemented and managed
- IAC0402 Grazing programmes can be planned, implemented and managed

13.2.5. PM-13-PS05: Manage nutrition of dairy animals on pastures

Scope of Practical Skill

- PA0501 Dry matter intake of animals on pasture
- PA0502 Nutrient quality of pastures
- PA0503 Supplementary feeding with regards to the following: conserved forages, supplementary concentrates, substitution rate and partial total mixed ration

Applied Knowledge

- AK0501 Dairy animal nutrition

Internal Assessment Criteria

- IAC0501 Dry matter intake of animals on pasture are regulated according to standards
- IAC0502 Supplementary feeding is done correctly according to best practices

13.2.6. PM-13-PS06: Manage health risks of dairy cattle on pastures

Scope of Practical Skill

- PA0601 Nutrition related health risks such as roughage, energy and protein, macro-minerals, trace elements, vitamins
- PA0602 Internal parasites related health risks
- PA0603 Plant poisonings and mycotoxicoses related health risks
- PA0604 Water quality related health risks

Applied Knowledge

- AK0601 Health risks of dairy cattle on pastures
- AK0602 Water quality requirements
- AK0603 Poisonous plants

Internal Assessment Criteria

- IAC0601 The health of dairy cattle on pastures can be managed and maintained

13.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Demonstrate access to:
- Dairy farm pastures and other feeding practices in use

Human Resource Requirements:

- Facilitators with subject matter expertise
- A learner facilitator ratio of no more than 1:15
- Assessors with recognised assessment practice training and subject matter expertise

Legal Requirements:

- Compliance with occupational health, safety and environmental protection regulations

13.4 Exemptions

- None

SECTION 3C: WORK EXPERIENCE MODULE SPECIFICATIONS

List of Work Experience Module Specifications

- 612102001-WM-01, Calf and heifer rearing practices and a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-02, Heifer, cow and bull production and health care practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-03, Lactating cow feeding practices on a dairy farm, NQF Level 3, Credits 18
- 612102001-WM-04, Milk harvesting, parlour hygiene and equipment care processes on a dairy farm, NQF Level 3, Credits 23
- 612102001-WM-05, In parlour milk processing and handling, NQF Level 3, Credits 13
- 612102001-WM-06, Direct a work team in different dairy farming production activities, NQF Level 4, Credits 18
- 612102001-WM-07, Dairy farm records and administrative processes, NQF Level 4, Credits 10
- 612102001-WM-08, Implementation of Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 18
- 612102001-WM-09, Dairy farming management processes and systems, NQF Level 5, Credits 42
- 612102001-WM-10, The establishment and management of pastures on a dairy farm, NQF Level 5, Credits 32

1. 612102001-WM-01, Calf and heifer rearing practices and a dairy farm, NQF Level 3, Credits 18

1.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Gain experience in a dairy farming environment on calf and heifer rearing, production and health care practices.

The learner will be required to:

- WM-01-WE01: Assist and observe an experienced person attending to the calves and heifers on a dairy farm for a period of one week
- WM-01-WE02: Attend to the calves and heifers or a period of one week under close supervision
- WM-01-WE03: Attend to the calves and heifers within normal farm reporting structures and oversight for a period of two weeks

1.2 Guidelines for Work Experiences

1.2.1. WM-01-WE01: Assist and observe an experienced person attending to the calves and heifers on a dairy farm for a period of one week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe all calf rearing, production and housing sanitation and cleaning practices
- WA0102 Assist with and observe general health care practices of calves including the administration of vaccines, application of external parasite control products, the application of oral remedies to control internal parasites, the application of fly control products
- WA0103 Assist with and observe feeding of calves including colostrum feeding, milk or milk substitute feeding, concentrated feeds and water provision
- WA0104 Assist with and observe the inspection of calves for signs of health problems and ways of reporting required in various situations

Supporting Evidence

- SE0101 Report by mentor

1.2.2. WM-01-WE02: Attend to the calves and heifers or a period of one week under close supervision

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Attend to production and housing sanitation and cleaning practices under supervision
- WA0202 Attend to general health care practices including the administration of vaccines, application of external parasite control products, the application of oral remedies to control internal parasites, the application of fly control products, disinfection of navels under supervision

- WA0203 Attend to feeding of calves including colostrum feeding, milk or milk substitute feeding, concentrated feeds and water provision under supervision
- WA0204 Inspect calves and heifers for signs of health problems and report according to requirements, under supervision

Supporting Evidence

- SE0201 Report by mentor

1.2.3. WM-01-WE03: Attend to the calves and heifers within normal farm reporting structures and oversight for a period of two weeks

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Attend to production and housing sanitation and cleaning practices
- WA0302 Attend to general health care practices including but not limited to at least the administration of vaccines, application of external parasite control products, the application of oral remedies to control internal parasites, the application of fly control products, navel disinfection
- WA0303 Attend to feeding of calves including colostrum feeding, milk or milk substitute feeding, concentrated feeds and water provision
- WA0304 Inspect calves and heifers for signs of health problems and report according to requirements
- WA0305 Attend to calves and heifers during days when limited support is available

Supporting Evidence

- SE0301 Calf and heifer production records
- SE0302 Calf and heifer health records

1.3 Contextualised Workplace Knowledge

1 Workplace practices and standards

2 Workplace reporting structures

1.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

1.5 Additional Assignments to be Assessed Externally

None specified

2. 612102001-WM-02, Heifer, cow and bull production and health care practices on a dairy farm, NQF Level 3, Credits 18

2.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Gain experience in a dairy farming environment on dairy herd production and health care practices.

The learner will be required to:

- WM-02-WE01: Assist and observe an experienced person attending to the heifers, dry cows and bulls on a dairy farm for a period of one week
- WM-02-WE02: Attend to the heifers, dry cows and bulls for a period of one week under supervision
- WM-02-WE03: Attend the heifers, dry cows and bulls within normal farm reporting structures and oversight for a period of two weeks

2.2 Guidelines for Work Experiences

2.2.1. WM-02-WE01: Assist and observe an experienced person attending to the heifers, dry cows and bulls on a dairy farm for a period of one week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe production practices including: condition scoring; weighing; male breeding behaviour; cows calving; animal counting according to herd composition
- WA0102 Assist with and observe general health care practices including: performing a systematic health inspection of dry cows and bulls and how to report as required; as well as restraining of the animal and applying various health care treatments
- WA0103 Assist with and observe feeding and water provision practices

Supporting Evidence

- SE0101 Report by mentor

2.2.2. WM-02-WE02: Attend to the heifers, dry cows and bulls for a period of one week under supervision

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Attend to production practices under supervision including: condition scoring; weighing; male breeding behaviour; cows calving; animal counting according to herd composition
- WA0202 Attend to general health care practices including: performing a systematic health inspection of dry cows and bulls and report as required; restraining of the animal and applying various health care treatments; under supervision
- WA0203 Attend to feeding and water provision practices under supervision

Supporting Evidence

- SE0201 Report by mentor

2.2.3. WM-02-WE03: Attend the heifers, dry cows and bulls within normal farm reporting structures and oversight for a period of two weeks

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Attend to and observe production practices within normal farm reporting structures and oversight including: condition scoring; weighing; reporting on male breeding behaviour and cows calving; animal counting according to herd composition
- WA0302 Attend to general health care practices within normal farm reporting structures and oversight including: performing a systematic health inspection of dry cows and bulls and report as required; restraining of the animal and applying various health care treatments
- WA0303 Attend to feeding and water provision within normal farm reporting structures and oversight
- WA0304 Attend to dry cows and bulls during days when limited support is available

Supporting Evidence

- SE0301 Production records of dry cows and bulls
- SE0302 Health records of dry cows and bulls

2.3 Contextualised Workplace Knowledge

1 Workplace practices and standards

2 Workplace reporting structures

2.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

2.5 Additional Assignments to be Assessed Externally

None specified

3. 612102001-WM-03, Lactating cow feeding practices on a dairy farm, NQF Level 3, Credits 18

3.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Gain experience in a dairy farming environment on lactating cow production and health care practices.

The learner will be required to:

- WM-03-WE01: Assist and observe an experienced person preparing and distributing feed to lactating cows a dairy farm for a period of one week
- WM-03-WE02: Attend to preparing and distributing feed to lactating cows for a period of one week under supervision
- WM-03-WE03: Attend to preparing and distributing feed to lactating cows for a period of two weeks within normal farm reporting structures and oversight

3.2 Guidelines for Work Experiences

3.2.1. WM-03-WE01: Assist and observe an experienced person preparing and distributing feed to lactating cows a dairy farm for a period of one week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe feed trough cleaning and care practices
- WA0102 Assist with and observe the operation of a feed wagon
- WA0103 Assist with and observe feed weighing and mixing practices
- WA0104 Assist with and observe feed distribution practices

Supporting Evidence

- SE0101 Report by mentor

3.2.2. WM-03-WE02: Attend to preparing and distributing feed to lactating cows for a period of one week under supervision

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Attend to feed trough cleaning and care practices under supervision
- WA0202 Attend the operation of a feed wagon under supervision
- WA0203 Attend feed weighing and mixing practices under supervision
- WA0204 Attend feed distribution practices under supervision

Supporting Evidence

- SE0201 Report by mentor

3.2.3. WM-03-WE03: Attend to preparing and distributing feed to lactating cows for a period of two weeks within normal farm reporting structures and oversight

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Attend to feed trough cleaning and care practices
- WA0302 Attend the operation of a feed wagon
- WA0303 Attend feed weighing and mixing practices
- WA0304 Attend feed distribution practices
- WA0305 Attend to feeding of cows in milk during days when limited support is available such as over weekends or public holidays

Supporting Evidence

- SE0301 Feed records

3.3 Contextualised Workplace Knowledge

1 Workplace practices and standards

2 Workplace reporting structures

3.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

3.5 Additional Assignments to be Assessed Externally

None specified

4. 612102001-WM-04, Milk harvesting, parlour hygiene and equipment care processes on a dairy farm, NQF Level 3, Credits 23

4.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Gain experience in milk harvesting; parlour hygiene and equipment care processes on a dairy farm.

The learner will be required to:

- WM-04-WE01: Assist with and observe the milk harvesting process for a period of one week
- WM-04-WE02: Perform milk harvesting under supervision for a period of two weeks
- WM-04-WE03: Attend to the milk harvesting process for period of two weeks within normal farm reporting structures and oversight

4.2 Guidelines for Work Experiences

4.2.1. WM-04-WE01: Assist with and observe the milk harvesting process for a period of one week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe pre-milking cow preparation
- WA0102 Assist with and observe the separation as well as the milking of fresh cows and cows under treatment
- WA0103 Assist with and observe the milking of cows including: udder cleaning, attachment and detachment of clusters, testing milk for mastitis, recording milk produced
- WA0104 Assist with and observe parlour and equipment hygiene and sanitation practices

Supporting Evidence

- SE0101 Report by mentor

4.2.2. WM-04-WE02: Perform milk harvesting under supervision for a period of two weeks

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Attend to pre-milking cow preparation under supervision
- WA0202 Attend to the separation and milking of fresh cows and cows being treated, under supervision
- WA0203 Attend to milking of cows including: udder cleaning, attachment and detachment of clusters, testing milk for mastitis, recording milk produced, under supervision
- WA0204 Attend to parlour and equipment hygiene and sanitation practices under supervision

Supporting Evidence

- SE0201 Report by mentor

4.2.3. WM-04-WE03: Attend to the milk harvesting process for period of two weeks within normal farm reporting structures and oversight

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Attend to pre-milking cow preparation
- WA0302 Attend to the separation and milking of fresh cows and cows under treatment
- WA0303 Attend to milking of cows including: udder cleaning, attachment and detachment of clusters, testing milk for mastitis, recording milk produced
- WA0304 Attend to parlour and equipment hygiene and sanitation practices
- WA0305 Attend to milk harvesting when limited support is available

Supporting Evidence

- SE0301 Parlour records

4.3 Contextualised Workplace Knowledge

1 Workplace practices and standards

2 Workplace reporting structures

4.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

4.5 Additional Assignments to be Assessed Externally

None specified

5. 612102001-WM-05, In parlour milk processing and handling, NQF Level 3, Credits 13

5.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Gain experience in milk processing and handling processes that takes place in a dairy parlour.

The learner will be required to:

- WM-05-WE01: Assist with and observe in-parlour processing and handling of milk for a period of two days
- WM-05-WE02: Perform in-parlour processing and handling of milk under supervision for a period of three days
- WM-05-WE03: Attend to the in-parlour processing and handling of milk autonomously for period of one week

5.2 Guidelines for Work Experiences

5.2.1. WM-05-WE01: Assist with and observe in-parlour processing and handling of milk for a period of two days

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe milk cooling processes including maintaining cold chain requirements
- WA0102 Assist with and observe milk bulk storage processes
- WA0103 Assist with and observe milk dispatch processes
- WA0104 Assist with and observe cooling, storage and handling equipment cleaning, hygiene and sanitation practices

Supporting Evidence

- SE0101 Report by mentor

5.2.2. WM-05-WE02: Perform in-parlour processing and handling of milk under supervision for a period of three days

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Attend to milk cooling processes, including maintaining cold chain requirements, under supervision
- WA0202 Attend to bulk milk storage processes under supervision
- WA0203 Attend to milk dispatch processes under supervision
- WA0204 Attend to cooling, storage and handling equipment cleaning, hygiene and sanitation practices under supervision

Supporting Evidence

- SE0201 Report by mentor

5.2.3. WM-05-WE03: Attend to the in-parlour processing and handling of milk autonomously for period of one week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Attend to milk cooling processes, including maintaining cold chain requirements
- WA0302 Attend to bulk milk storage processes
- WA0303 Attend to milk dispatch processes
- WA0304 Attend to cooling, storage and handling equipment cleaning, hygiene and sanitation practices
- WA0305 Attend to in-parlour processing and handling of milk during days when limited support is available

Supporting Evidence

- SE0301 Parlour records

5.3 Contextualised Workplace Knowledge

1 Workplace practices and standards

2 Workplace reporting structures

5.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

5.5 Additional Assignments to be Assessed Externally

None specified

6. 612102001-WM-06, Direct a work team in different dairy farming production activities, NQF Level 4, Credits 18

6.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Gain experience in directing work teams employed in various dairy farming activities.

The learner will be required to:

- WM-06-WE01: Direct a work team caring for calves and heifers for a week
- WM-06-WE02: Direct a work team caring for dry cows and bulls for a week
- WM-06-WE03: Direct a work team attending to cows in milk for a week
- WM-06-WE04: Direct a milk harvesting team for a week

6.2 Guidelines for Work Experiences

6.2.1. WM-06-WE01: Direct a work team caring for calves and heifers for a week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Allocate tasks to team members, monitor the execution of the tasks and report
- WA0102 Recognise and respond to problems that arise during the execution of rearing and caring tasks including: cleaning and sanitation of facilities, restraining of calves, weighing calves and recording weights according to accepted workplace standards
- WA0103 Recognise and respond to problems that arise during the execution of feeding tasks including: feeding of colostrum, feeding of milk substitutes or milk, provision of concentrated supplementary feed, availability and provision of drinking water to accepted workplace standards
- WA0104 Recognise and respond to problems that arise during the execution of health care tasks including: recognising and responding to signs of disease, vaccinations, treatment of external parasites, treatment of internal parasites, disinfection of navels, insertion of a stomach tube, removal of accessory teats and treatment of wounds, preparation for and application of identification, treatment of hooves, castration and application of post castration treatments; dehorning and treatment of wounds caused by dehorning according to accepted workplace standards
- WA0105 Lead and direct work teams during days when limited support is available such as over weekends or public holidays

Supporting Evidence

- SE0101 Calf records
- SE0102 Heifer records

6.2.2. WM-06-WE02: Direct a work team caring for dry cows and bulls for a week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Allocate tasks to team members, monitor the execution of the tasks and report
- WA0202 Recognise and respond to problems that arise during the execution of production tasks including: feeding and camp rotations, observing and reporting on natural male breeding behaviour and cows that calf, preparing females for AI, supply of licks and supplementary feed, condition scoring, weighing and counting of the herd, according to accepted workplace standards
- WA0203 Recognise and respond according to accepted workplace standards to problems that arise during the execution of health care tasks, including: recognising and responding to signs of disease, restraining an animal for application of various treatments, taking temperature with a thermometer, vaccinations, treatment of external parasites, treatment of internal parasites, calibration and sterilisation of equipment
- WA0204 Lead and direct work teams during days when limited support is available such as over weekends or public holidays

Supporting Evidence

- SE0201 Production records of cows and bulls

6.2.3. WM-06-WE03: Direct a work team attending to cows in milk for a week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Allocate tasks relating to cows in milk to team members, monitor the execution of the tasks and report
- WA0302 Recognise and respond to problems related to feeding of the cows in milk including preparation of feed, allocation and distribution of feed, the operation of the feed trailer, availability of drinking water to accepted workplace standards
- WA0303 Recognise and respond to health related problems of cows in milk including cases of bloat, mastitis, to accepted workplace standards
- WA0304 Lead and direct work teams during days when limited support is available such as over weekends or public holidays

Supporting Evidence

- SE0301 Lactating cow records
- SE0302 Feed records

6.2.4. WM-06-WE04: Direct a milk harvesting team for a week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0401 Allocate tasks to team members, monitor the execution of the tasks and report
- WA0402 Recognise and respond to problems related to milk harvesting practices to accepted workplace standards

- WA0403 Recognise and respond to parlour hygiene and sanitising practices to accepted workplace standards
- WA0404 Recognise and respond to problems related to parlour equipment operation and maintenance to accepted workplace standards
- WA0405 Recognise and respond to problems related to in parlour milk processing, could chain, storage and dispatch to accepted workplace standards
- WA0406 Lead and direct work teams during days when limited support is available

Supporting Evidence

- SE0401 Dairy farm herd health records
- SE0402 Dairy farm feed records
- SE0403 Personnel records
- SE0404 Stocks and stock records
- SE0405 Financial records
- SE0406 Milk records
- SE0407 Machine maintenance records

6.3 Contextualised Workplace Knowledge

1 Workplace practices and standards

2 Workplace reporting structures

6.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

6.5 Additional Assignments to be Assessed Externally

None specified

7. 612102001-WM-07, Dairy farm records and administrative processes, NQF Level 4, Credits 10

7.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Gain experience in attending to dairy parlour administration and record keeping.

The learner will be required to:

- WM-07-WE01: Assist with and observe dairy farming record keeping and administration for a period of two days
- WM-07-WE02: Perform dairy farming record keeping and administration under supervision for a period of three days
- WM-07-WE03: Attend to dairy farming record keeping and administration within normal farm reporting structures and oversight for period of one week

7.2 Guidelines for Work Experiences

7.2.1. WM-07-WE01: Assist with and observe dairy farming record keeping and administration for a period of two days

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe dairy parlour administration and record keeping activities such as milk production records, cow in milk records
- WA0102 Assist with and observe updating of dairy herd administration and recordkeeping such as herd records, breeding records, herd health records
- WA0103 Assist with and observe dairy calf administration and recordkeeping activities such as calf health records
- WA0104 Assist with and observe feed administration and recordkeeping activities such as stock on hand, feed orders, feed intake
- WA0105 Assist with and observe personnel administration and recordkeeping activities such as attendance records, leave records, injuries on duty, employment contracts, disciplinary records, training records

Supporting Evidence

- SE0101 Mentor report

7.2.2. WM-07-WE02: Perform dairy farming record keeping and administration under supervision for a period of three days

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Perform dairy parlour administration and record keeping activities such as milk production records, cow in milk records, under supervision

- WA0202 Perform updating of dairy herd administration and recordkeeping such as herd records, breeding records, herd health records, under supervision
- WA0203 Perform dairy calf administration and recordkeeping activities such as calf health records, under supervision
- WA0204 Perform feed administration and recordkeeping activities such as stock on hand, feed orders, feed intake, under supervision
- WA0205 Perform personnel administration and recordkeeping activities such as attendance records, leave records, injuries on duty, employment contracts, disciplinary records, training records under supervision

Supporting Evidence

- SE0201 Mentor report

7.2.3. WM-07-WE03: Attend to dairy farming record keeping and administration within normal farm reporting structures and oversight for period of one week

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Perform dairy parlour administration and record keeping activities such as milk production records, cow in milk records
- WA0302 Perform updating of dairy herd administration and recordkeeping such as herd records, breeding records, herd health records
- WA0303 Perform dairy calf administration and recordkeeping activities such as calf health records
- WA0304 Perform feed administration and recordkeeping activities such as stock on hand, feed orders, feed intake
- WA0305 Perform personnel administration and recordkeeping activities such as attendance records, leave records, injuries on duty, employment contracts, disciplinary records, training records

Supporting Evidence

- SE0301 Dairy parlour records
- SE0302 Feed records
- SE0303 Livestock records
- SE0304 Personnel records

7.3 Contextualised Workplace Knowledge

1 Workplace records and administration

2 Workplace reporting structures

7.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

7.5 Additional Assignments to be Assessed Externally

None specified

8. 612102001-WM-08, Implementation of Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 18

8.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

gain experience in implementing concepts related to the dairy code of good practise for milk producers on a dairy farm.

The learner will be required to:

- WM-08-WE01: Assist with and observe implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm for a period of two weeks
- WM-08-WE02: Perform the implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm under supervision for a period of a month.
- WM-08-WE03: Manage the implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm under normal supervisory and management conditions for a period of one month.

8.2 Guidelines for Work Experiences

8.2.1. WM-08-WE01: Assist with and observe implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm for a period of two weeks

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe the identification of structural requirements and the performance of machine maintenance.
- WA0102 Assist with and observe the performance of making recommendations for good milking practices as well as recommendations for animal health and welfare practices.
- WA0103 Assist with and observe the performance of general and dairy farm specific hygiene practices.
- WA0104 Assist with and observe the administration of dairy farm specific documentation.

Supporting Evidence

- SE0101 Dairy farm herd health records
- SE0102 Dairy farm feed records
- SE0103 Personnel records
- SE0104 Stocks and stock records
- SE0105 Financial records
- SE0106 Milk records
- SE0107 Machine maintenance records

8.2.2. WM-08-WE02: Perform the implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm under supervision for a period of a month.

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Perform the identification of structural requirements and the performance of machine maintenance under supervision.
- WA0202 Make recommendations for good milking practices as well as recommendations for animal health and welfare practices, under supervision.
- WA0203 Perform general and dairy farm specific hygiene practices, under supervision.
- WA0204 Perform the administration of dairy farm specific documentation, under supervision.

Supporting Evidence

- SE0201 Dairy farm herd health records
- SE0202 Dairy farm feed records
- SE0203 Personnel records
- SE0204 Stocks and stock records
- SE0205 Financial records
- SE0206 Milk records
- SE0207 Machine maintenance records

8.2.3. WM-08-WE03: Manage the implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm under normal supervisory and management conditions for a period of one month.

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Perform the identification of structural requirements and the maintenance of machines.
- WA0302 Make recommendations for good milking practices as well as recommendations for animal health and welfare practices.
- WA0303 Perform general and dairy farm specific hygiene practices.
- WA0304 Perform the administration of dairy farm specific documentation.

Supporting Evidence

- SE0301 Dairy farm herd records
- SE0302 Dairy farm herd health records
- SE0303 Dairy farm feed records

- SE0304 Personnel records
- SE0305 Stocks and stock records
- SE0306 Financial records
- SE0307 Milk records

8.3 Contextualised Workplace Knowledge

1. Dairy herd care and breeding policies and practices
2. Dairy farm feeding policies and practices
3. Financial control policies and practices
4. Personnel management policies, codes and practices
5. Milk distribution policies and practices
6. Milk harvesting policies and practices
7. General farm rules
8. Farm record and administration policies and practices
9. Reporting structures and delegation of authority
10. Machine and structural maintenance policies and practices

8.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

8.5 Additional Assignments to be Assessed Externally

None specified

9. 612102001-WM-09, Dairy farming management processes and systems, NQF Level 5, Credits 42

9.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

gain experience in attending to a range of managerial activities and functions on a dairy farm.

The learner will be required to:

- WM-09-WE01: Assist with and observe dairy farming management for a period of two weeks
- WM-09-WE02: Perform dairy farm management activities under supervision for a period of a month
- WM-09-WE03: Manage a dairy farm within normal farm reporting structures and oversight for a period of one month

9.2 Guidelines for Work Experiences

9.2.1. WM-09-WE01: Assist with and observe dairy farming management for a period of two weeks

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe dairy herd management activities and functions such as feeding practices, herd heath care practices and breeding practices, herd management planning and reporting meetings
- WA0102 Assist with and observe dairy parlour management activities and functions such as the execution of milk parlour routines, milk parlour hygiene, milk parlour maintenance, milk marketing, parlour management planning and reporting meetings
- WA0103 Assist with and observe dairy farm administration and cost control activities such as record keeping and reporting, purchasing of goods, control of stocks and assets, financial planning and reporting meetings
- WA0104 Assist with and observe labour management activities and functions such as industrial relations, performance management, labour control, labour planning and reporting meetings

Supporting Evidence

- SE0101 Mentor report

9.2.2. WM-09-WE02: Perform dairy farm management activities under supervision for a period of a month

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Perform dairy herd management activities and functions such as feeding practices, herd heath care practices and breeding practices, herd management planning and reporting meetings under supervision

- WA0202 Perform dairy parlour management activities and functions such as the execution of milk parlour routines, milk parlour hygiene, milk parlour maintenance, milk marketing, parlour management planning and reporting meetings, under supervision
- WA0203 Perform dairy farm administration and cost control activities such as record keeping and reporting, purchasing of goods, control of stocks and assets, financial planning and reporting meetings, under supervision
- WA0204 Perform labour management activities and functions such as industrial relations, performance management, labour control, labour planning and reporting meetings, under supervision

Supporting Evidence

- SE0201 Mentor report

9.2.3. WM-09-WE03: Manage a dairy farm within normal farm reporting structures and oversight for a period of one month

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Perform dairy herd management activities and functions such as feeding practices, herd heath care practices and breeding practices, herd management planning and reporting meetings
- WA0302 Perform dairy parlour management activities and functions such as the execution of milk parlour routines, milk parlour hygiene, milk parlour maintenance, milk marketing, parlour management planning and reporting meetings
- WA0303 Perform dairy farm administration and cost control activities such as record keeping and reporting, purchasing of goods, control of stocks and assets, financial planning and reporting meetings
- WA0304 Perform labour management activities and functions such as industrial relations, performance management, labour control, labour planning and reporting meetings

Supporting Evidence

- SE0301 Dairy farm herd records
- SE0302 Dairy farm herd health records
- SE0303 Dairy farm feed records
- SE0304 Personnel records
- SE0305 Stocks and stock records
- SE0306 Financial records
- SE0307 Milk records

9.3 Contextualised Workplace Knowledge

1 Dairy herd care and breeding policies and practices

2 Dairy farm feeding policies and practices

3 Financial control policies and practices

4 Personnel management policies, codes and practices

5 Milk distribution policies and practices

6 Milk harvesting policies and practices

7 General farm rules

8 Farm record and administration policies and practices

9 Reporting structures and delegation of authority

9.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 100 cows in milk, or a recognised public dairy training institution with at least 50 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

9.5 Additional Assignments to be Assessed Externally

None

10. 612102001-WM-10, The establishment and management of pastures on a dairy farm, NQF Level 5, Credits 32

10.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

gain experience in attending to a range of activities regarding the establishment and management of pastures on a dairy farm

The learner will be required to:

- WM-10-WE01: Assist with and observe pasture management on a dairy farm for a period of two weeks
- WM-10-WE02: Perform pasture management activities on a dairy farm under supervision for a period of a month
- WM-10-WE03: Manage pastures on a dairy farm under normal supervisory and management condition for a period of one month

10.2 Guidelines for Work Experiences

10.2.1. WM-10-WE01: Assist with and observe pasture management on a dairy farm for a period of two weeks

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Assist with and observe pasture management activities and functions regarding the assessment of natural resources and the physical development of pastures, including matters such as interpreting aerial photographs and topography maps; soil management; fencing, camps, walkways, watering points and storage facilities for conserved fodder; erosion; irrigation development.
- WA0102 Assist with and observe pasture management activities and functions regarding the establishment and maintenance of pastures such as identifying pasture types; preparation of the seedbed and establishment methods; pasture mixtures; fertilisation; irrigation
- WA0103 Assist with and observe pasture management activities and functions regarding fodder flow planning such as animal production; forage production and feed budgeting; pasture dry matter production; economics of fodder flow
- WA0104 Assist with and observe pasture management activities and functions regarding planning grazing programmes such as type of grazing system, stocking rate; seed production; regeneration of degraded pastures
- WA0105 Assist with and observe pasture management activities and functions regarding nutrition of dairy animals including matters such as dry matter intake; nutrient quality of pastures; supplementary feeding
- WA0106 Assist with and observe pasture management activities and functions with regards to health risks of dairy cattle on pastures including matters such as nutrition; internal parasites; plant poisonings and mycotoxicoses; water quality

Supporting Evidence

- SE0101 Mentor report

10.2.2. WM-10-WE02: Perform pasture management activities on a dairy farm under supervision for a period of a month

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Perform pasture management activities and functions regarding the assessment of natural resources and the physical development of pastures, including matters such as interpreting aerial photographs and topography maps; soil management; fencing, camps, walkways, watering points and storage facilities for conserved fodder; erosion; irrigation development under supervision
- WA0202 Perform pasture management activities and functions regarding the establishment and maintenance of pastures such as identifying pasture types; preparation of the seedbed and establishment methods; pasture mixtures; fertilisation; irrigation, under supervision
- WA0203 Perform pasture management activities and functions regarding fodder flow planning such as animal production; forage production and feed budgeting; pasture dry matter production; economics of fodder flow, under supervision
- WA0204 Perform pasture management activities and functions regarding planning grazing programmes such as type of grazing systemstocking rate; seed production; regeneration of degraded pastures, under supervision
- WA0205 Perform pasture management activities and functions regarding nutrition of dairy animals including matters such as dry matter intake; nutrient quality of pastures; supplementary feeding, under supervision
- WA0206 Perform pasture management activities and functions with regards to health risks of dairy cattle on pastures including matters such as nutrition; internal parasites; plant poisonings and mycotoxicoses; water quality, under supervision

Supporting Evidence

- SE0201 Mentor report

10.2.3. WM-10-WE03: Manage pastures on a dairy farm under normal supervisory and management condition for a period of one month

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Perform pasture management activities and functions regarding the assessment of natural resources and the physical development of pastures, including matters such as interpreting aerial photographs and topography maps; soil management; fencing, camps, walkways, watering points and storage facilities for conserved fodder; erosion; irrigation development
- WA0302 Perform pasture management activities and functions regarding the establishment and maintenance of pastures such as identifying pasture types; preparation of the seedbed and establishment methods; pasture mixtures; fertilisation; irrigation
- WA0303 Perform pasture management activities and functions regarding fodder flow planning such as animal production; forage production and feed budgeting; pasture dry matter production; economics of fodder flow

- WA0304 Perform pasture management activities and functions regarding planning grazing programmes such as pasture type, stocking rate; seed production; regeneration of degraded pastures
- WA0305 Perform pasture management activities and functions regarding nutrition of dairy animals including matters such as dry matter intake; nutrient quality of pastures; supplementary feeding
- WA0306 Perform pasture management activities and functions with regards to health risks of dairy cattle on pastures including matters such as nutrition; internal parasites; plant poisonings and mycotoxicoses; water quality

Supporting Evidence

- SE0301 Dairy farm herd health records
- SE0302 Dairy farm feed records
- SE0303 Milk records

10.3 Contextualised Workplace Knowledge

1 Dairy herd health care policies and practices

2 Dairy farm feeding policies and practices

3 Financial control policies and practices

4 Milk harvesting policies and practices

5 General farm rules

6 Farm record and administration policies and practices

10.4 Criteria for Workplace Approval

Physical Requirements:

- A fully operational dairy farming unit that produces milk for the fresh milk market
- A commercial dairy farm with at least 50 cows in milk
- A recognised public dairy training institution with at least 20 cows in milk such as an Agricultural College, a Agricultural School or a Agricultural Reach Farm

Human Resource Requirements:

- A person with 3 years experience in a supervisory or managerial role on a dairy farm trained as a workplace mentor must be available for every 5 learners

Legal Requirements:

- Workplace compliance with occupational health safety and environmental protection requirements

10.5 Additional Assignments to be Assessed Externally

None

SECTION 4: STATEMENT OF WORK EXPERIENCE

Curriculum Number:	612102001
Curriculum Title:	Dairy Unit Manager

Learner Details	
Name:	
ID Number:	

Employer Details	
Company Name:	
Address:	
Supervisor Name:	
Work Telephone:	
E-Mail:	

612102001-WM-01, Calf and heifer rearing practices and a dairy farm, NQF Level 3, Credits 18

WM-01-WE01	Assist and observe an experienced person attending to the calves and heifers on a dairy farm for a period of one week		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe all calf rearing, production and housing sanitation and cleaning practices		
WA0102	Assist with and observe general health care practices of calves including the administration of vaccines, application of external parasite control products, the application of oral remedies to control internal parasites, the application of fly control products		
WA0103	Assist with and observe feeding of calves including colostrum feeding, milk or milk substitute feeding, concentrated feeds and water provision		
WA0104	Assist with and observe the inspection of calves for signs of health problems and ways of reporting required in various situations		
	Supporting Evidence	Date	Signature
SE0101	Report by mentor		
WM-01-WE02	Attend to the calves and heifers or a period of one week under close supervision		
	Scope Work Experience	Date	Signature
WA0201	Attend to production and housing sanitation and cleaning practices under supervision		
WA0202	Attend to general health care practices including the administration of vaccines, application of external parasite control products, the application of oral remedies to control internal parasites, the application of fly control products, disinfection of navels under supervision		
WA0203	Attend to feeding of calves including colostrum feeding, milk or milk substitute feeding, concentrated feeds and water provision under supervision		

WA0204	Inspect calves and heifers for signs of health problems and report according to requirements, under supervision		
	Supporting Evidence	Date	Signature
SE0201	Report by mentor		
WM-01-WE03	Attend to the calves and heifers within normal farm reporting structures and oversight for a period of two weeks		
	Scope Work Experience	Date	Signature
WA0301	Attend to production and housing sanitation and cleaning practices		
WA0302	Attend to general health care practices including but not limited to at least the administration of vaccines, application of external parasite control products, the application of oral remedies to control internal parasites, the application of fly control products, navel disinfection		
WA0303	Attend to feeding of calves including colostrum feeding, milk or milk substitute feeding, concentrated feeds and water provision		
WA0304	Inspect calves and heifers for signs of health problems and report according to requirements		
WA0305	Attend to calves and heifers during days when limited support is available		
	Supporting Evidence	Date	Signature
SE0301	Calf and heifer production records		
SE0302	Calf and heifer health records		

	Contextualised Workplace Knowledge	Date	Signature
1	Workplace practices and		

	standards		
2	Workplace reporting structures		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-02, Heifer, cow and bull production and health care practices on a dairy farm, NQF Level 3, Credits 18

WM-02-WE01	Assist and observe an experienced person attending to the heifers, dry cows and bulls on a dairy farm for a period of one week		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe production practices including: condition scoring; weighing; male breeding behaviour; cows calving; animal counting according to herd composition		
WA0102	Assist with and observe general health care practices including: performing a systematic health inspection of dry cows and bulls and how to report as required; as well as restraining of the animal and applying various health care treatments		
WA0103	Assist with and observe feeding and water provision practices		
	Supporting Evidence	Date	Signature
SE0101	Report by mentor		
WM-02-WE02	Attend to the heifers, dry cows and bulls for a period of one week under supervision		
	Scope Work Experience	Date	Signature
WA0201	Attend to production practices under supervision including: condition scoring; weighing; male breeding behaviour; cows calving; animal counting		

	according to herd composition		
WA0202	Attend to general health care practices including: performing a systematic health inspection of dry cows and bulls and report as required; restraining of the animal and applying various health care treatments; under supervision		
WA0203	Attend to feeding and water provision practices under supervision		
	Supporting Evidence	Date	Signature
SE0201	Report by mentor		
WM-02-WE03	Attend the heifers, dry cows and bulls within normal farm reporting structures and oversight for a period of two weeks		
	Scope Work Experience	Date	Signature
WA0301	Attend to and observe production practices within normal farm reporting structures and oversight including: condition scoring; weighing; reporting on male breeding behaviour and cows calving; animal counting according to herd composition		
WA0302	Attend to general health care practices within normal farm reporting structures and oversight including: performing a systematic health inspection of dry cows and bulls and report as required; restraining of the animal and applying various health care treatments		
WA0303	Attend to feeding and water provision within normal farm reporting structures and oversight		
WA0304	Attend to dry cows and bulls during days when limited support is available		
	Supporting Evidence	Date	Signature
SE0301	Production records of dry cows and bulls		
SE0302	Health records of dry cows and bulls		

	Contextualised Workplace Knowledge	Date	Signature
1	Workplace practices and standards		
2	Workplace reporting structures		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-03, Lactating cow feeding practices on a dairy farm, NQF Level 3, Credits 18

WM-03-WE01	Assist and observe an experienced person preparing and distributing feed to lactating cows a dairy farm for a period of one week		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe feed trough cleaning and care practices		
WA0102	Assist with and observe the operation of a feed wagon		
WA0103	Assist with and observe feed weighing and mixing practices		
WA0104	Assist with and observe feed distribution practices		
	Supporting Evidence	Date	Signature
SE0101	Report by mentor		
WM-03-WE02	Attend to preparing and distributing feed to lactating cows for a period of one week under supervision		
	Scope Work Experience	Date	Signature
WA0201	Attend to feed trough cleaning and care practices		

	under supervision		
WA0202	Attend the operation of a feed wagon under supervision		
WA0203	Attend feed weighing and mixing practices under supervision		
WA0204	Attend feed distribution practices under supervision		
	Supporting Evidence	Date	Signature
SE0201	Report by mentor		
WM-03-WE03	Attend to preparing and distributing feed to lactating cows for a period of two weeks within normal farm reporting structures and oversight		
	Scope Work Experience	Date	Signature
WA0301	Attend to feed trough cleaning and care practices		
WA0302	Attend the operation of a feed wagon		
WA0303	Attend feed weighing and mixing practices		
WA0304	Attend feed distribution practices		
WA0305	Attend to feeding of cows in milk during days when limited support is available such as over weekends or public holidays		
	Supporting Evidence	Date	Signature
SE0301	Feed records		

	Contextualised Workplace Knowledge	Date	Signature
1	Workplace practices and standards		

2	Workplace reporting structures		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-04, Milk harvesting, parlour hygiene and equipment care processes on a dairy farm, NQF Level 3, Credits 23

WM-04-WE01	Assist with and observe the milk harvesting process for a period of one week		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe pre-milking cow preparation		
WA0102	Assist with and observe the separation as well as the milking of fresh cows and cows under treatment		
WA0103	Assist with and observe the milking of cows including: udder cleaning, attachment and detachment of clusters, testing milk for mastitis, recording milk produced		
WA0104	Assist with and observe parlour and equipment hygiene and sanitation practices		
	Supporting Evidence	Date	Signature
SE0101	Report by mentor		
WM-04-WE02	Perform milk harvesting under supervision for a period of two weeks		
	Scope Work Experience	Date	Signature
WA0201	Attend to pre-milking cow preparation under supervision		
WA0202	Attend to the separation and milking of fresh cows and cows being treated, under supervision		

WA0203	Attend to milking of cows including: udder cleaning, attachment and detachment of clusters, testing milk for mastitis, recording milk produced, under supervision		
WA0204	Attend to parlour and equipment hygiene and sanitation practices under supervision		
	Supporting Evidence	Date	Signature
SE0201	Report by mentor		
WM-04-WE03	Attend to the milk harvesting process for period of two weeks within normal farm reporting structures and oversight		
	Scope Work Experience	Date	Signature
WA0301	Attend to pre-milking cow preparation		
WA0302	Attend to the separation and milking of fresh cows and cows under treatment		
WA0303	Attend to milking of cows including: udder cleaning, attachment and detachment of clusters, testing milk for mastitis, recording milk produced		
WA0304	Attend to parlour and equipment hygiene and sanitation practices		
WA0305	Attend to milk harvesting when limited support is available		
	Supporting Evidence	Date	Signature
SE0301	Parlour records		

	Contextualised Workplace Knowledge	Date	Signature
1	Workplace practices and standards		

2	Workplace reporting structures		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-05, In parlour milk processing and handling, NQF Level 3, Credits 13

WM-05-WE01	Assist with and observe in-parlour processing and handling of milk for a period of two days		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe milk cooling processes including maintaining cold chain requirements		
WA0102	Assist with and observe milk bulk storage processes		
WA0103	Assist with and observe milk dispatch processes		
WA0104	Assist with and observe cooling, storage and handling equipment cleaning, hygiene and sanitation practices		
	Supporting Evidence	Date	Signature
SE0101	Report by mentor		
WM-05-WE02	Perform in-parlour processing and handling of milk under supervision for a period of three days		
	Scope Work Experience	Date	Signature
WA0201	Attend to milk cooling processes, including maintaining cold chain requirements, under supervision		
WA0202	Attend to bulk milk storage processes under supervision		
WA0203	Attend to milk dispatch processes under supervision		

WA0204	Attend to cooling, storage and handling equipment cleaning, hygiene and sanitation practices under supervision		
	Supporting Evidence	Date	Signature
SE0201	Report by mentor		
WM-05-WE03	Attend to the in-parlour processing and handling of milk autonomously for period of one week		
	Scope Work Experience	Date	Signature
WA0301	Attend to milk cooling processes, including maintaining cold chain requirements		
WA0302	Attend to bulk milk storage processes		
WA0303	Attend to milk dispatch processes		
WA0304	Attend to cooling, storage and handling equipment cleaning, hygiene and sanitation practices		
WA0305	Attend to in-parlour processing and handling of milk during days when limited support is available		
	Supporting Evidence	Date	Signature
SE0301	Parlour records		

	Contextualised Workplace Knowledge	Date	Signature
1	Workplace practices and standards		
2	Workplace reporting structures		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-06, Direct a work team in different dairy farming production activities, NQF Level 4, Credits 18

WM-06-WE01	Direct a work team caring for calves and heifers for a week		
	Scope Work Experience	Date	Signature
WA0101	Allocate tasks to team members, monitor the execution of the tasks and report		
WA0102	Recognise and respond to problems that arise during the execution of rearing and caring tasks including: cleaning and sanitation of facilities, restraining of calves, weighing calves and recording weights according to accepted workplace standards		
WA0103	Recognise and respond to problems that arise during the execution of feeding tasks including: feeding of colostrum, feeding of milk substitutes or milk, provision of concentrated supplementary feed, availability and provision of drinking water to accepted workplace standards		
WA0104	Recognise and respond to problems that arise during the execution of health care tasks including: recognising and responding to signs of disease, vaccinations, treatment of external parasites, treatment of internal parasites, disinfection of navels, insertion of a stomach tube, removal of accessory teats and treatment of wounds, preparation for and application of identification, treatment of hooves, castration and application of post castration treatments; dehorning and treatment of wounds caused by dehorning according to accepted workplace standards		
WA0105	Lead and direct work teams during days when limited support is available such as over weekends or public holidays		
	Supporting Evidence	Date	Signature
SE0101	Calf records		
SE0102	Heifer records		

WM-06-WE02	Direct a work team caring for dry cows and bulls for a week		
	Scope Work Experience	Date	Signature
WA0201	Allocate tasks to team members, monitor the execution of the tasks and report		
WA0202	Recognise and respond to problems that arise during the execution of production tasks including: feeding and camp rotations, observing and reporting on natural male breeding behaviour and cows that calf, preparing females for AI, supply of licks and supplementary feed, condition scoring, weighing and counting of the herd, according to accepted workplace standards		
WA0203	Recognise and respond according to accepted workplace standards to problems that arise during the execution of health care tasks, including: recognising and responding to signs of disease, restraining an animal for application of various treatments, taking temperature with a thermometer, vaccinations, treatment of external parasites, treatment of internal parasites, calibration and sterilisation of equipment		
WA0204	Lead and direct work teams during days when limited support is available such as over weekends or public holidays		
	Supporting Evidence	Date	Signature
SE0201	Production records of cows and bulls		
WM-06-WE03	Direct a work team attending to cows in milk for a week		
	Scope Work Experience	Date	Signature
WA0301	Allocate tasks relating to cows in milk to team members, monitor the execution of the tasks and report		
WA0302	Recognise and respond to problems related to feeding of the cows in milk including preparation of feed, allocation and distribution of feed, the operation of the feed trailer, availability of drinking water to accepted workplace standards		

WA0303	Recognise and respond to health related problems of cows in milk including cases of bloat, mastitis, to accepted workplace standards		
WA0304	Lead and direct work teams during days when limited support is available such as over weekends or public holidays		
	Supporting Evidence	Date	Signature
SE0301	Lactating cow records		
SE0302	Feed records		
WM-06-WE04	Direct a milk harvesting team for a week		
	Scope Work Experience	Date	Signature
WA0401	Allocate tasks to team members, monitor the execution of the tasks and report		
WA0402	Recognise and respond to problems related to milk harvesting practices to accepted workplace standards		
WA0403	Recognise and respond to parlour hygiene and sanitising practices to accepted workplace standards		
WA0404	Recognise and respond to problems related to parlour equipment operation and maintenance to accepted workplace standards		
WA0405	Recognise and respond to problems related to in parlour milk processing, could chain, storage and dispatch to accepted workplace standards		
WA0406	Lead and direct work teams during days when limited support is available		
	Supporting Evidence	Date	Signature
SE0401	Dairy farm herd health records		
SE0402	Dairy farm feed records		
SE0403	Personnel records		

SE0404	Stocks and stock records		
SE0405	Financial records		
SE0406	Milk records		
SE0407	Machine maintenance records		

	Contextualised Workplace Knowledge	Date	Signature
1	Workplace practices and standards		
2	Workplace reporting structures		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-07, Dairy farm records and administrative processes, NQF Level 4, Credits 10

WM-07-WE01	Assist with and observe dairy farming record keeping and administration for a period of two days		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe dairy parlour administration and record keeping activities such as milk production records, cow in milk records		
WA0102	Assist with and observe updating of dairy herd administration and recordkeeping such as herd records, breeding records, herd health records		
WA0103	Assist with and observe dairy calf administration and recordkeeping activities such as calf health records		

WA0104	Assist with and observe feed administration and recordkeeping activities such as stock on hand, feed orders, feed intake		
WA0105	Assist with and observe personnel administration and recordkeeping activities such as attendance records, leave records, injuries on duty, employment contracts, disciplinary records, training records		
	Supporting Evidence	Date	Signature
SE0101	Mentor report		
WM-07-WE02	Perform dairy farming record keeping and administration under supervision for a period of three days		
	Scope Work Experience	Date	Signature
WA0201	Perform dairy parlour administration and record keeping activities such as milk production records, cow in milk records, under supervision		
WA0202	Perform updating of dairy herd administration and recordkeeping such as herd records, breeding records, herd health records, under supervision		
WA0203	Perform dairy calf administration and recordkeeping activities such as calf health records, under supervision		
WA0204	Perform feed administration and recordkeeping activities such as stock on hand, feed orders, feed intake, under supervision		
WA0205	Perform personnel administration and recordkeeping activities such as attendance records, leave records, injuries on duty, employment contracts, disciplinary records, training records under supervision		
	Supporting Evidence	Date	Signature
SE0201	Mentor report		
WM-07-WE03	Attend to dairy farming record keeping and administration within normal farm reporting structures and oversight for period of one week		

	Scope Work Experience	Date	Signature
WA0301	Perform dairy parlour administration and record keeping activities such as milk production records, cow in milk records		
WA0302	Perform updating of dairy herd administration and recordkeeping such as herd records, breeding records, herd health records		
WA0303	Perform dairy calf administration and recordkeeping activities such as calf health records		
WA0304	Perform feed administration and recordkeeping activities such as stock on hand, feed orders, feed intake		
WA0305	Perform personnel administration and recordkeeping activities such as attendance records, leave records, injuries on duty, employment contracts, disciplinary records, training records		
	Supporting Evidence	Date	Signature
SE0301	Dairy parlour records		
SE0302	Feed records		
SE0303	Livestock records		
SE0304	Personnel records		

	Contextualised Workplace Knowledge	Date	Signature
1	Workplace records and administration		
2	Workplace reporting structures		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-08, Implementation of Code of Good Practice for Milk Producers in the dairy industry, NQF Level 4, Credits 18

WM-08-WE01	Assist with and observe implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm for a period of two weeks		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe the identification of structural requirements and the performance of machine maintenance.		
WA0102	Assist with and observe the performance of making recommendations for good milking practices as well as recommendations for animal health and welfare practices.		
WA0103	Assist with and observe the performance of general and dairy farm specific hygiene practices.		
WA0104	Assist with and observe the administration of dairy farm specific documentation.		
	Supporting Evidence	Date	Signature
SE0101	Dairy farm herd health records		
SE0102	Dairy farm feed records		
SE0103	Personnel records		
SE0104	Stocks and stock records		
SE0105	Financial records		
SE0106	Milk records		
SE0107	Machine maintenance records		
WM-08-WE02	Perform the implementation of concepts related to the		

	dairy code of good practise for milk producers on a dairy farm under supervision for a period of a month.		
	Scope Work Experience	Date	Signature
WA0201	Perform the identification of structural requirements and the performance of machine maintenance under supervision.		
WA0202	Make recommendations for good milking practices as well as recommendations for animal health and welfare practices, under supervision.		
WA0203	Perform general and dairy farm specific hygiene practices, under supervision.		
WA0204	Perform the administration of dairy farm specific documentation, under supervision.		
	Supporting Evidence	Date	Signature
SE0201	Dairy farm herd health records		
SE0202	Dairy farm feed records		
SE0203	Personnel records		
SE0204	Stocks and stock records		
SE0205	Financial records		
SE0206	Milk records		
SE0207	Machine maintenance records		
WM-08-WE03	Manage the implementation of concepts related to the dairy code of good practise for milk producers on a dairy farm under normal supervisory and management conditions for a period of one month.		
	Scope Work Experience	Date	Signature
WA0301	Perform the identification of structural requirements and the maintenance of machines.		
WA0302	Make recommendations for good milking practices as well as recommendations for animal health and		

	welfare practices.		
WA0303	Perform general and dairy farm specific hygiene practices.		
WA0304	Perform the administration of dairy farm specific documentation.		
	Supporting Evidence	Date	Signature
SE0301	Dairy farm herd records		
SE0302	Dairy farm herd health records		
SE0303	Dairy farm feed records		
SE0304	Personnel records		
SE0305	Stocks and stock records		
SE0306	Financial records		
SE0307	Milk records		

	Contextualised Workplace Knowledge	Date	Signature
1	Dairy herd care and breeding policies and practices		
2	Dairy farm feeding policies and practices		
3	Financial control policies and practices		
4	Personnel management policies, codes and practices		
5	Milk distribution policies and practices		

6	Milk harvesting policies and practices		
7	General farm rules		
8	Farm record and administration policies and practices		
9	Reporting structures and delegation of authority		
10	Machine and structural maintenance policies and practices		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-09, Dairy farming management processes and systems, NQF Level 5, Credits 42

WM-09-WE01	Assist with and observe dairy farming management for a period of two weeks		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe dairy herd management activities and functions such as feeding practices, herd heath care practices and breeding practices, herd management planning and reporting meetings		
WA0102	Assist with and observe dairy parlour management activities and functions such as the execution of milk parlour routines, milk parlour hygiene, milk parlour maintenance, milk marketing, parlour management planning and reporting meetings		
WA0103	Assist with and observe dairy farm administration and cost control activities such as record keeping and reporting, purchasing of goods, control of stocks and assets, financial planning and reporting meetings		

WA0104	Assist with and observe labour management activities and functions such as industrial relations, performance management, labour control, labour planning and reporting meetings		
	Supporting Evidence	Date	Signature
SE0101	Mentor report		
WM-09-WE02	Perform dairy farm management activities under supervision for a period of a month		
	Scope Work Experience	Date	Signature
WA0201	Perform dairy herd management activities and functions such as feeding practices, herd heath care practices and breeding practices, herd management planning and reporting meetings under supervision		
WA0202	Perform dairy parlour management activities and functions such as the execution of milk parlour routines, milk parlour hygiene, milk parlour maintenance, milk marketing, parlour management planning and reporting meetings, under supervision		
WA0203	Perform dairy farm administration and cost control activities such as record keeping and reporting, purchasing of goods, control of stocks and assets, financial planning and reporting meetings, under supervision		
WA0204	Perform labour management activities and functions such as industrial relations, performance management, labour control, labour planning and reporting meetings, under supervision		
	Supporting Evidence	Date	Signature
SE0201	Mentor report		
WM-09-WE03	Manage a dairy farm within normal farm reporting structures and oversight for a period of one month		
	Scope Work Experience	Date	Signature
WA0301	Perform dairy herd management activities and functions such as feeding practices, herd heath care practices and breeding practices, herd management		

	planning and reporting meetings		
WA0302	Perform dairy parlour management activities and functions such as the execution of milk parlour routines, milk parlour hygiene, milk parlour maintenance, milk marketing, parlour management planning and reporting meetings		
WA0303	Perform dairy farm administration and cost control activities such as record keeping and reporting, purchasing of goods, control of stocks and assets, financial planning and reporting meetings		
WA0304	Perform labour management activities and functions such as industrial relations, performance management, labour control, labour planning and reporting meetings		
	Supporting Evidence	Date	Signature
SE0301	Dairy farm herd records		
SE0302	Dairy farm herd health records		
SE0303	Dairy farm feed records		
SE0304	Personnel records		
SE0305	Stocks and stock records		
SE0306	Financial records		
SE0307	Milk records		

	Contextualised Workplace Knowledge	Date	Signature
1	Dairy herd care and breeding policies and practices		
2	Dairy farm feeding policies and practices		

3	Financial control policies and practices		
4	Personnel management policies, codes and practices		
5	Milk distribution policies and practices		
6	Milk harvesting policies and practices		
7	General farm rules		
8	Farm record and administration policies and practices		
9	Reporting structures and delegation of authority		

	Additional Assignments to be Assessed Externally	Date	Signature

612102001-WM-10, The establishment and management of pastures on a dairy farm, NQF Level 5, Credits 32

WM-10-WE01	Assist with and observe pasture management on a dairy farm for a period of two weeks		
	Scope Work Experience	Date	Signature
WA0101	Assist with and observe pasture management activities and functions regarding the assessment of natural resources and the physical development of pastures, including matters such as interpreting aerial photographs and topography maps; soil management; fencing, camps, walkways, watering points and storage facilities for conserved fodder; erosion; irrigation development.		
WA0102	Assist with and observe pasture management		

	activities and functions regarding the establishment and maintenance of pastures such as identifying pasture types; preparation of the seedbed and establishment methods; pasture mixtures; fertilisation; irrigation		
WA0103	Assist with and observe pasture management activities and functions regarding fodder flow planning such as animal production; forage production and feed budgeting; pasture dry matter production; economics of fodder flow		
WA0104	Assist with and observe pasture management activities and functions regarding planning grazing programmes such as type of grazing system, stocking rate; seed production; regeneration of degraded pastures		
WA0105	Assist with and observe pasture management activities and functions regarding nutrition of dairy animals including matters such as dry matter intake; nutrient quality of pastures; supplementary feeding		
WA0106	Assist with and observe pasture management activities and functions with regards to health risks of dairy cattle on pastures including matters such as nutrition; internal parasites; plant poisonings and mycotoxicoses; water quality		
	Supporting Evidence	Date	Signature
SE0101	Mentor report		
WM-10-WE02	Perform pasture management activities on a dairy farm under supervision for a period of a month		
	Scope Work Experience	Date	Signature
WA0201	Perform pasture management activities and functions regarding the assessment of natural resources and the physical development of pastures, including matters such as interpreting aerial photographs and topography maps; soil management; fencing, camps, walkways, watering points and storage facilities for conserved fodder; erosion; irrigation development under supervision		
WA0202	Perform pasture management activities and functions regarding the establishment and maintenance of pastures such as identifying pasture types;		

	preparation of the seedbed and establishment methods; pasture mixtures; fertilisation; irrigation, under supervision		
WA0203	Perform pasture management activities and functions regarding fodder flow planning such as animal production; forage production and feed budgeting; pasture dry matter production; economics of fodder flow, under supervision		
WA0204	Perform pasture management activities and functions regarding planning grazing programmes such as type of grazing systemstocking rate; seed production; regeneration of degraded pastures, under supervision		
WA0205	Perform pasture management activities and functions regarding nutrition of dairy animals including matters such as dry matter intake; nutrient quality of pastures; supplementary feeding, under supervision		
WA0206	Perform pasture management activities and functions with regards to health risks of dairy cattle on pastures including matters such as nutrition; internal parasites; plant poisonings and mycotoxicoses; water quality, under supervision		
	Supporting Evidence	Date	Signature
SE0201	Mentor report		
WM-10-WE03	Manage pastures on a dairy farm under normal supervisory and management condition for a period of one month		
	Scope Work Experience	Date	Signature
WA0301	Perform pasture management activities and functions regarding the assessment of natural resources and the physical development of pastures, including matters such as interpreting aerial photographs and topography maps; soil management; fencing, camps, walkways, watering points and storage facilities for conserved fodder; erosion; irrigation development		
WA0302	Perform pasture management activities and functions regarding the establishment and maintenance of pastures such as identifying pasture types; preparation of the seedbed and establishment methods; pasture mixtures; fertilisation; irrigation		

WA0303	Perform pasture management activities and functions regarding fodder flow planning such as animal production; forage production and feed budgeting; pasture dry matter production; economics of fodder flow		
WA0304	Perform pasture management activities and functions regarding planning grazing programmes such as pasture type, stocking rate; seed production; regeneration of degraded pastures		
WA0305	Perform pasture management activities and functions regarding nutrition of dairy animals including matters such as dry matter intake; nutrient quality of pastures; supplementary feeding		
WA0306	Perform pasture management activities and functions with regards to health risks of dairy cattle on pastures including matters such as nutrition; internal parasites; plant poisonings and mycotoxicoses; water quality		
	Supporting Evidence	Date	Signature
SE0301	Dairy farm herd health records		
SE0302	Dairy farm feed records		
SE0303	Milk records		

	Contextualised Workplace Knowledge	Date	Signature
1	Dairy herd health care policies and practices		
2	Dairy farm feeding policies and practices		
3	Financial control policies and practices		
4	Milk harvesting policies and practices		

5	General farm rules		
6	Farm record and administration policies and practices		

	Additional Assignments to be Assessed Externally	Date	Signature