

## MAINTAIN LIVESTOCK HEALTH

**UNIT CODE:** AGR/OS/EXT/CR/04/4

### UNIT DESCRIPTION

This unit specifies the competencies required to maintain livestock health. It involves prepare to maintain livestock health, maintain livestock house structures, housing the livestock, carrying out routine management practices, controlling livestock disease and parasites, and waste management and documentation.

### ELEMENTS AND PERFORMANCE CRITERIA

| <b>ELEMENT</b><br>These describe the <b>key outcomes</b> which make up workplace function (to be stated in active voice) | <b>PERFORMANCE CRITERIA</b><br>These are <b>assessable statements</b> which specify the required level of performance for each of the elements (to be stated in passive voice)<br><i><b>Bold and italicized terms are elaborated in the Range</b></i>  |
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| 1. Prepare to maintain livestock health  | <p>1.1 <i><b>Personal protective equipment</b></i> is worn as per occupation health and safety standard as well as the job requirements.</p> <p>1.2 Appropriate <i><b>livestock housing structures</b></i> are identified according to <i><b>species</b></i>, type <i><b>and class of the livestock</b></i> and Livestock housing design</p> <p>1.3 <i><b>Structure maintenance materials</b></i> are identified and gathered according to livestock housing plan and job requirement.</p> <p>1.4 <i><b>Structure maintenance Tools, equipment and machines</b></i> are identified and gathered according to the job requirement.</p> <p>1.5 <i><b>Routine management practices</b></i> are identified based on LPM, livestock species and class.</p> <p>1.6 <i><b>Diseases and parasites</b></i> are identified according to the type of livestock</p> <p>1.7 <i><b>Health Conditions</b></i> are identified according to effects on production and workplace procedures.</p> |

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|   | <p>1.8 <b>Parasite control method</b> is adopted based on the type of parasite and level of infestation.</p> <p>1.9 Method of disease control is identified and adopted depending on the disease</p> <p>1.10 Parasite control Materials/tools/equipment are identified and gathered according to the mode of control</p>  |
| 2. Maintain livestock house structures    | <p>2.1 Areas requiring maintenance are identified based on the need and condition of the structure</p> <p>2.2 Structures are maintained according to the need for repairs and maintenance</p> <p>2.3 Fittings are maintained based on the damages caused to them</p>  |
| 3. House the livestock                    | <p>3.1 Farm animals are housed based on the livestock production manual (LPM)</p> <p>3.2 The structure capacity is adhered to according to animal species, LPM and livestock welfare regulations.</p> <p>3.3 Livestock structures are cleaned as per the LPM</p>  |
| 4. Carry out routine management practices | <p>4.1 Routine management practices are performed based on animal type &amp; category and LPM</p> <p>4.2 Tools and equipment used are cleaned and stored as per manufacturer's instructions and workplace policy</p>  |
| 5. Control livestock diseases             | <p>5.1 Sick animals are identified and isolated based on the workplace policy</p> <p>5.2 A template on the livestock health is filled according to workplace policy and LMP</p> <p>5.3 A qualified Veterinary officer is engaged to diagnose the diseases and treat the animal accurately according to the symptoms</p> <p>5.4 <b>Notifiable diseases</b> are reported to the authorities concerned based on <b>LPM</b></p> <p>5.5 Close monitoring of the livestock on treatment is carried out according to veterinary officers' advice</p> |
| 6. Control livestock parasites            | <p>6.1 Parasite identification is done according to the livestock production manuals</p> <p>6.2 Appropriate parasite <b>management method</b> is followed based on the parasite identified</p>  |

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| 7. Manage health conditions                     | <p>7.1 Livestock with health condition are identified as per LPM</p> <p>7.2 Livestock health condition template is filled as per LPM</p> <p>7.3 Report the identified case of livestock health condition according to workplace policy.</p> <p>7.4 Instruction on management of the adverse health conditions are followed according to workplace policy</p>   |
| 8. Complete the maintenance of livestock health | <p>8.1 Animal droppings are collected and converted into farmyard manure according to work place policy.</p> <p>8.2 Reusable equipment and tools are cleaned, sterilized and stored according to the workplace policy</p> <p>8.3 Waste and non-recyclable materials are collected and sorted according to the workplace policy</p> <p>8.4 Livestock health maintenance activities are recorded according to the farm routine practices.</p> <p>8.5 Unused materials are stored according to manufacturer's instructions.</p> |

## RANGE

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

| <b>VARIABLE</b>           | <b>RANGE</b> (May include but are not limited to :)  |
|---------------------------|--|
| Livestock housing designs | <p>Types of animal house</p> <ul style="list-style-type: none"> <li>- Bee hives</li> <li>- Crushes</li> <li>- Rabbit pens</li> <li>- Fences</li> <li>- Goat/ sheep sheds</li> <li>- Outside pens</li> <li>- Poultry house/ cages</li> <li>- Zero grazing unit</li> </ul> <ul style="list-style-type: none"> <li>• Structural plan layout of animal structures</li> </ul> |

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| Structure maintenance materials                     | <ul style="list-style-type: none"> <li>• Roofing materials</li> <li>• Bricks</li> <li>• Timber</li> <li>• Blocks</li> <li>• Nails</li> <li>• Cement</li> <li>• Sand</li> <li>• Water</li> <li>• Wires</li> </ul>   |
| Structure maintenance Tools, equipment and machines | <ul style="list-style-type: none"> <li>• Wooden pegs</li> <li>• Measuring tape</li> <li>• Hammer</li> <li>• Sisal twine</li> <li>• Masonry tools</li> <li>• Carpentry tools</li> <li>• Plumbing tools</li> <li>• Hoe</li> <li>• Jembe</li> <li>• Panga</li> <li>• Slashers</li> <li>• Rakes</li> <li>• Wheel barrow</li> </ul> |
| Livestock house structures                          | <ul style="list-style-type: none"> <li>• Bee hives</li> <li>• Crushes</li> <li>• Dogs kennels</li> <li>• Rabbit pens</li> <li>• Fences</li> <li>• Goat/ sheep sheds</li> <li>• Outside pens</li> <li>• Poultry house/ cages</li> <li>• Zero grazing unit</li> </ul>  |

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| Species of the livestock      | <ul style="list-style-type: none"> <li>• Pigs</li> <li>• Cattle</li> <li>• Bees</li> <li>• Sheep</li> <li>• Fish</li> <li>• Dogs and pets</li> <li>• Emerging livestock</li> <li>• Equines</li> <li>• Goats</li> </ul>   |
| Class of livestock            | <ul style="list-style-type: none"> <li>• Young</li> <li>• Old</li> <li>• Gestating</li> <li>• Lactating</li> <li>• Laying</li> <li>• Brooding</li> </ul>   |
| Personal protective equipment | <ul style="list-style-type: none"> <li>• Gumboots</li> <li>• Overall</li> <li>• Gloves</li> <li>• Breathing mask</li> <li>• Goggles</li> <li>• Cap</li> </ul>  |
| Routine management practices  | <ul style="list-style-type: none"> <li>• Shearing</li> <li>• De-beaking</li> <li>• Foot path replenishment</li> <li>• Cleaning of feeding and watering troughs</li> <li>• Turning of litter</li> <li>• Changing beddings</li> <li>• Cleaning sheds/ houses</li> <li>• Disinfecting livestock houses and brooders</li> <li>• Dung removal from the livestock houses</li> <li>• Livestock weighing for growth monitoring</li> <li>• Parasite control practices</li> <li>• Grooming</li> <li>• Hair clipping</li> </ul> |

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| Diseases          | <ul style="list-style-type: none"> <li>• Viral</li> <li>• Fungal</li> <li>• Bacterial</li> <li>• Protozoan</li> <li>• Microplasmal</li> </ul>   |
| Health conditions | <ul style="list-style-type: none"> <li>• Fractures</li> <li>• Snake and spider bites</li> <li>• Bee stings</li> <li>• Dog bites</li> <li>• Poisoning</li> <li>• External Soft tissue injuries</li> <li>• Metabolic disorders</li> </ul>   |
| Parasites         | <ul style="list-style-type: none"> <li>• External: <ul style="list-style-type: none"> <li>- Flea</li> <li>- Lice</li> <li>- Manges</li> <li>- Mite</li> <li>- Tick</li> <li>- Tsetse fly</li> <li>- Flies</li> </ul> </li> <li>• Internal: <ul style="list-style-type: none"> <li>- Fluke worms</li> <li>- Round worm</li> <li>- Tape worm</li> </ul> </li> </ul> |

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| Parasite control method                         | <ul style="list-style-type: none"> <li>• Internal parasite control: <ul style="list-style-type: none"> <li>- Deworming</li> <li>- Rotational grazing</li> <li>- Observing feed and fodder hygiene</li> <li>- Observing field hygiene</li> </ul> </li> <li>• External parasite control <ul style="list-style-type: none"> <li>- Spraying</li> <li>- Vaccination</li> <li>- Dusting</li> <li>- Hair trimming</li> <li>- Pasture field hygiene</li> <li>- Proper house conditions</li> <li>- Dipping</li> <li>- Grooming</li> </ul> </li> </ul> |
| Method of disease control                       | <ul style="list-style-type: none"> <li>• Intramuscular injections by a qualified veterinary officer</li> <li>• Pasture field hygiene</li> <li>• Eradicating vectors and predisposing factors</li> <li>• Spraying</li> <li>• Proper and timely vaccination</li> <li>• Livestock movement control</li> <li>• Sanitation and hygiene</li> </ul>   |
| Parasite control materials, tools and equipment | <ul style="list-style-type: none"> <li>• Bolus gun</li> <li>• Sprayer</li> <li>• Water</li> <li>• Slashers</li> <li>• Rakes,</li> <li>• Wheel barrow</li> <li>• Shovels</li> <li>• Buckets</li> <li>• Measuring cylinders</li> <li>• Livestock restrainers</li> <li>• Foot baths</li> <li>• Sanitizations agents</li> <li>• Acaricides</li> <li>• Dewormers</li> </ul>   |

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| Notifiable diseases                | <ul style="list-style-type: none"> <li>• Foot and mouth</li> <li>• Anthrax</li> <li>• Swine fever</li> </ul>  |
| Livestock production manual-LPM    | <ul style="list-style-type: none"> <li>• Feeding</li> <li>• Vaccination</li> <li>• Routine management practices: <ul style="list-style-type: none"> <li>- Castration</li> <li>- De-beaking</li> <li>- Dehorning</li> <li>- Identification</li> <li>- Teat clipping</li> </ul> </li> </ul> |
| Environment management regulations | <ul style="list-style-type: none"> <li>• Environmental Management and Coordination Act – EMCA</li> <li>• National environmental management authority regulations</li> <li>• OHS</li> </ul>  |

## REQUIRED SKILLS AND KNOWLEDGE

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

### Required Skills

The individual needs to demonstrate the following skills:

- Animal handling
- Communication
- Observation
- Recording
- Measurement
- Basic numeracy
- Tools and equipment handling
- Observation
- Perceptual (auditory, visual, smell, tactile)

### Required Knowledge

The individual needs to demonstrate knowledge of:

- Animal behaviour
- Types of tools and equipment required in livestock house structures construction
- Materials for constructing livestock house structures

- Livestock production systems
- Livestock house structures
- Livestock health conditions
- Livestock parasites
- Animal physiology
- Disease and parasite control methods
- Livestock Welfare
- Environmental health and safety
- Livestock Hygiene
- Occupational safety and health
- Waste management

### EVIDENCE GUIDE

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

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| <p>1. Critical Aspects of Competency</p> | <p>1.1 Assessment requires evidence that the candidate:<br/>           1.2 Gathered structure maintenance materials, tools and equipment correctly<br/>           1.3 Used materials and resources efficiently<br/>           1.4 Maintained livestock structures appropriately<br/>           1.5 Implemented vaccination and parasite control programmes accordingly<br/>           1.6 Observed laid down environmental workplace policy keenly<br/>           1.7 Observed safety measures keenly<br/>           1.8 Applied appropriate disease and parasite control methods correctly<br/>           1.9 Followed instructions on management of adverse health conditions of the livestock keenly<br/>           1.10 Stored unused materials, cleaned tools and equipment correctly<br/>           1.11 filled the livestock health care templates well<br/>           1.12 Evaluated health care effectiveness<br/>           1.13 Observed livestock welfare practices well</p> |
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| 2. Resource Implications               | <p>The following resources must be provided:</p> <p>2.1 Assessment location- functional farm with various livestock species, livestock structures, Basic construction tools and equipment, Tools, equipment and materials for pest control</p> <p>2.2 Farm plan</p> <p>2.3 Parasite control plans</p> <p>2.4 Environmental management policy</p> <p>2.5 Personal protective equipment</p> |
| 3. Methods of Assessment               | <p>Competency in this unit may be assessed through:</p> <p>3.1 Observation</p> <p>3.2 Oral interview</p> <p>3.3 Written exam</p> <p>3.4 Third party report</p>  |
| 4. Context of Assessment               | <p>Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment.</p>  |
| 5. Guidance information for assessment | <p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p>   |

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