

# DAIRY FARM SUPERVISOR

Competency Standards

National Vocational  
Certificate Level 4

Version 1 - September 2015

**Published by**

National Vocational and Technical Training Commission  
Government of Pakistan

**Headquarter**

Plot 38, Kirthar Road, Sector H-9/4, Islamabad, Pakistan  
www.navttc.org

**Responsible**

Director General Skills Standard and Curricula, National Vocational and Technical Training Commission  
National Deputy Head, TVET Reform Support Programme, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

**Layout & design**

SAP Communications

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This document has been produced with the technical assistance of the TVET Reform Support Programme, which is funded by the European Union, the Embassy of the Kingdom of the Netherlands, the Federal Republic of Germany and the Royal Norwegian Embassy and has been commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in close collaboration with the National Vocational and Technical Training Commission (NAVTTTC) as well as provincial Technical Education and Vocational Training Authorities (TEVTAs), Punjab Vocational Training Council (PVTTC), Qualification Awarding Bodies (QABs)s and private sector organizations.

**Document Version**

September, 2015

**Islamabad, Pakistan**

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## Competency Module A: Supervise Feeding Management

**Overview:** This competency standard identifies the competencies required to supervise feeding management of livestock. You will be expected to Grow Fodder according to farm requirement, Purchase fodder according to farm requirement, **Manage Grazing, as per requirement/ availability, Preserve Fodder, Prepare Feed/Wanda/Concentrate and minerals, & Ensure access of clean and fresh water**

Competency Unit	Performance Criteria	Knowledge and Understanding
<b>A1 – Grow Fodder to meet animal feed requirement</b>	<p><b><i>Trainee will be able to:</i></b></p> <p>P1. Arrange tools/implements and labour for preparation of land</p> <p>P2. Supervise land preparation as per fodder crop requirement</p> <p>P3. Ensure availability of inputs for fodder crops sowing</p> <p>P4. Supervise timely sowing of fodder crops to ensure availability of fodder for the animals throughout the year</p> <p>P5. Ensure protection of fodder crops through Integrated Pest Management (IPM) system</p> <p>P6. Ensure timely harvesting of fodder crops</p>	<p><b><i>Trainee must know and understand</i></b></p> <p>K1. Types and usage of tools/implements</p> <p>K2. Fodder crop requirements for land preparation</p> <p>K3. Fodder crop inputs required for sowing</p> <p>K4. Seasonal variations of fodder sowing in different regions</p> <p>K5. Integrated Pest Management system for farm's fodder crops</p> <p>K6. The appropriate stage of harvesting in relation to nutritive values for range of fodder crops</p>
<b>A2. Purchase Fodder to supplement animal feed requirement</b>	<p><b><i>Trainee will be able to</i></b></p> <p>P1. Identify the most cost effective quality fodder &amp; nearest market</p> <p>P2. Estimate required fodder quantity according to the quantity and type of the animals</p> <p>P3. Negotiate with fodder sellers and transporters for cost</p>	<p><b><i>Trainee must know and understand:</i></b></p> <p>K1. Production costs of different fodders and their quality</p> <p>K2. Information of fodder markets in the area</p>

Competency Unit	Performance Criteria	Knowledge and Understanding
	effective procurement P4. Arrange cost effective means for fodder transportation P5. Supervise weighing of fodder to ensure correct payment is made	K3. Estimated quantity of quality fodder required per animal and animal type for specified time period  K4. Calibration of weighing scale  K5. Different modes of fodder transportation  K6. Cost effective procurement for purchasing and transportation  K7. Common malpractices in weighing
<b>A3. Supervise Grazing to meet stock carrying capacity</b>	<b><i>Trainee will be able to:</i></b> P1. Arrange grazing land to feed animals to meet carrying capacity and seasons P2. Follow grazing patterns as per stock requirement <b>P3. Supervise farm labour as per assigned duties</b> <b>P4. Ensure animal safety during grazing from predators</b> <b>P5. Monitor use of grazing ground to maximise fodder availability</b> <b>P6. Monitor disease vectors on grazing land in order to minimise disease vectors</b>	<b><i>Trainee must know and understand:</i></b> K1. Stocking rate and carrying capacity of land in relation to variations in grazing seasons K2. Distribution of grazing across landscape K3. Match kinds & classes of animals according to range land K4. Methods of monitoring degrees of use grazing field K5. Methods to eliminate rodents, endo/ecto-parasites, predators, poisonous plants



Competency Unit	Performance Criteria	Knowledge and Understanding
<b>A4. Preserve Fodder (Silage + Hay)</b>	<p><b><i>Trainee will be able to:</i></b></p> <p>P1. Arrange silage for livestock as per requirement</p> <p>P2. Arrange hay for livestock as per requirement</p> <p>P3. Ensure quality of hay and silage</p>	<p><b><i>Trainee must know &amp; Understand:</i></b></p> <p>K1. Methods and protocols of silage and hay preparation and its storage</p> <p>K2. Nutritive values of different fodder crops after storage</p> <p>K3. Silage requirement according to animal status</p> <p>K4.</p>
<b>A5. Prepare Feed and supplements as per required Formulation</b>	<p><b><i>Trainee will be able to:</i></b></p> <p>P1. Arrange feed ingredients according to formulation</p> <p><b>P2. Ensure quality of ingredients</b></p> <p><b>P3. Ensure the correct use of machinery for mixing &amp; grinding of feed</b></p> <p><b>P4. Ensure feed availability according to psychological stage of animals</b></p> <p>P5. Ensure the safe storage of raw material as well as</p>	<p><b><i>Trainee must know &amp; Understand:</i></b></p> <p>K1. Types of feed ingredients and supplements</p> <p>K2. Quality indicators of ingredients</p> <ul style="list-style-type: none"> <li>• <b>Physically damaged</b></li> <li>• <b>Fungus</b></li> <li>• <b>Pests attacked</b></li> <li>• <b>Over moisturized</b></li> <li>• <b>Hygienic conditions</b></li> <li>• <b>Adulteration</b></li> </ul> <p>K3. Use of Mixing and grinding machines</p> <p>K5. Storage standards for mixing and grinding</p>

Competency Unit	Performance Criteria	Knowledge and Understanding
	concentrate feed	K6. Importance of feeding times
<b>A6. Ensure Free access of clean and fresh water</b>	<p><b><i>Trainee will be able to</i></b></p> <p>P1. Ensure water troughs are accessible to all stock throughout farm</p> <p>P2. Supervise farm labour to ensure water troughs are cleaned and as required for good animal health</p> <p>P3. Ensure uninterrupted &amp; continuous clean water supply</p>	<p><b><i>Trainee must know and understand</i></b></p> <p>K1. <i>Different types of water troughs and cleaning</i></p> <p>K2. Impact of clean water on milk production and animal's health.</p> <p>K2. Fungal growth and its impact on animals and preventive measures</p> <p>K3. Animal requirement for water</p>



## Competency Module B: Supervise Livestock Health

**Overview:** This competency standard identifies the competencies required to manage livestock health. You will be expected to **Control Ecto and Endo Parasites, Vaccinate the Animals, Treat Sick Animals, Maintain Bio Security, Disease Monitoring and Surveillance & Supervise Mastitis.**

Competency Unit	Performance Criteria	Knowledge and Understanding
<b>B1. Control Ecto and Endo Parasites</b>	<p><i>Trainee will be able to:</i></p> <p>P1. Ensure deworming as per schedule to control endo parasites</p> <p>P2. Arrange Fumigation/disinfection of shed to control ecto parasites</p> <p>P3. Ensure animal's Dipping for removal of ecto parasites</p> <p>P4. Inspect the animals physically for parasitic symptoms and Collect faecal and blood samples from suspected animals as per industry schedule</p>	<p><i>Trainee must know and understand</i></p> <p>K1. The mechanism of parasites including:</p> <ul style="list-style-type: none"> <li>• Types of ecto and endo parasites</li> <li>• Kinds of dewormers and its mode of action</li> <li>• The affect of parasites on farm economics</li> </ul> <p>K2. Control of ecto parasites and application of different types of disinfectants</p> <p>K3. Importance of dipping of animals and types of disinfectants.</p> <p>K4. Symptoms of ecto and endo parasitism and different methods for parasite diagnosis</p>
<b>B2. Vaccinate the Animals</b>	<p><i>Trainee will be able to</i></p> <p><i>P1. Prepare the vaccination schedule as per standards</i></p> <p><i>P2. Arrange the required vaccines according to the schedule</i></p> <p><i>P3. Ensure the quality of vaccine through proper storage at correct temperature</i></p> <p><i>P4. Timely Vaccinate the animals and ensure the standard dose according to the weight and size of animals</i></p>	<p><i>Trainee must know and understand:</i></p> <p>K1. Seasonal Diseases and their vaccination schedule</p> <p>K2. Types of vaccines and its availability source</p> <p>K3. Importance of vaccination, quality and its storage</p> <p>K4. Methods of vaccination</p> <p>K5. Estimation of doses</p> <p>K6. Contra-indication of different vaccines</p>

Competency Unit	Performance Criteria	Knowledge and Understanding
<b>B3. Treat Sick Animals</b>	<p><i>Trainee will be able to:</i></p> <p>P1. Identify &amp; Isolate sick animals to avoid transmission</p> <p>P2. Obtain the required medicines to treat sick animals from vet</p> <p>P3. Ensure immediate treatment for timely control till recovery</p> <p>P4. Keep treatment record of sick animals for treatment history</p> <p>P5. Advice culling for disease repeaters to avoid economic losses</p>	<p><i>Trainee must know and understand:</i></p> <p>K1. Types and symptoms of different diseases</p> <p>K2. Basic husbandry management</p> <p>K3. Importance of timely control of diseases</p> <p>K4. Handling and usage of medicines</p> <p>K5. Importance of culling for selection and replacement of animals at the farm</p>
<b>B4. Maintain Bio Security</b>	<p><i>Trainee will be able to:</i></p> <p><i>P1. Ensure bio security protocols to prevent vectors according to industry standards</i></p> <p><i>P2. Train the labour regarding bio security to ensure proper compliance of bio security</i></p> <p><i>P3. Ensure strength of disinfectant in foot dip as per industry standards</i></p>	<p><i>Trainee must know and understand:</i></p> <p><i>K1. Importance of bio security at farm level</i></p> <p><i>K2. Procedures for bio security compliance</i></p> <p><i>K3. Types of disinfectant used in bio security</i></p> <p><i>K4. Animal quarantine and its impact</i></p> <p><i>On farm economics</i></p>

Competency Unit	Performance Criteria	Knowledge and Understanding
	<p><i>P4. Apply quarantine measures where required at the farm to avoid disease carriers/vectors</i></p>	
<p><b>B5. Disease Monitoring and Surveillance on farm</b></p>	<p><i>Trainee will be able to:</i></p> <p><i>P1. Diagnose disease through regular inspection visits for in-time treatment of animals</i></p> <p><i>P2. Identify disease outbreak in locality to enable preventive measures are taken</i></p>	<p><i>Trainee must know and understand:</i></p> <p><i>K1. Different types of diseases</i></p> <p><i>K2. Preventive measures for disease outbreak</i></p> <p><i>K3. Importance of monitoring and surveillance of Diseases</i></p>
<p><b>B6. Supervise Mastitis</b></p>	<p><i>Trainee will be able to:</i></p> <p><i>P1. Identify the Symptoms of mastitis for timely treatment</i></p> <p><i>P2. Ensure the Milking of affected animals in Isolation to avoid spread in the farm</i></p> <p><i>P3. Conduct regular testing to prevent Mastitis</i></p>	<p><i>Trainee must know and understand:</i></p> <p><i>K1. Types of mastitis and its treatment</i></p> <p><i>K2. Mode of Mastitis spread</i></p> <p><i>K3. Availability of Mastitis Kit</i></p> <p><i>K4. Importance of Pre and post dipping</i></p>

## Competency Module C: Supervise Breeding

**Overview:** This competency standard identifies the competencies required to manage breeding as per farm requirement. You will be expected to **Supervise heat detection, Supervise A.I/Natural Mating, Diagnose Pregnancy, Supervise Parturition, Supervise New-born Care & assist in implementation of breeding plan.**

Competency Unit	Performance Criteria	Knowledge and Understanding
<b>C1. Supervise Heat Detection</b>	<p><i>Trainee must be able to:</i></p> <p>P1. Maintain Cow/Buffalo Calendar to assist in heat detection</p> <p>P2. Detect heat symptoms timely for precision in inseminations</p> <p>P3. Apply different means to improve heat detection</p> <p>P4. Arrange specific feed for animals to improve breeding</p> <p>P5. Maintain Reproductive Record of herd</p>	<p><b>Trainee must know and understand</b></p> <p>K1. Usage of Cow calendar</p> <p>K2. Heat detection symptoms</p> <p>K3. Reproductive cyclicity &amp; silent heat</p> <p>K4. Reproductive ration types and quantities</p> <p>K5. Types &amp; templates of reproductive records</p>
<b>C2. Supervise Insemination</b>	<p><i>Trainee must be able to:</i></p> <p>P1. Ensure the availability of AI Technician for timely insemination</p> <p>P2. Maintain A.I. kit at the farm according to set standards</p> <p>P3. Ensure A.I. protocols to achieve high conception that include:</p>	<p><i>Trainee must know and understand:</i></p> <p>K1. Database of best performing technicians in surrounding areas</p> <p>K2. Industry standards to maintain AI kit</p> <p>K3. Factors effecting conception rate during AI</p> <p>K4. Importance of Breeding &amp; Genetics for farm profitability</p>

Competency Unit	Performance Criteria	Knowledge and Understanding
	<ul style="list-style-type: none"> <li>i. Use of fresh gloves</li> <li>ii. Use of new sheath</li> <li>iii. Thawing as per standards</li> <li>iv. Liquid nitrogen gas filling</li> <li>v. Sun light exposure</li> </ul> <p>P4 Ensure bull preparation before natural mating.</p> <p>P5. Ensure pedigreed bulls having high conception rate for natural mating</p> <p>P6. Select the bull that are neither defective nor disease carrier for natural mating</p>	<p>K5. Reproductive Diseases</p>
<p>C3. Diagnose Pregnancy</p>	<p><i>Trainee must be able to:</i></p> <p>P1. Inspect and update the cow/buffalo calendar on daily basis</p> <p>P2. Perform the pregnancy tests as per breeding record to correctly identify pregnant animals</p>	<p><i>Trainee must know and understand:</i></p> <p>K1. Breeding cycle</p> <p>K2. Protocol of rectal palpation, use of pregnancy kits and ultrasound machines</p> <p>K3. Reproductive physiology</p>
<p>C4. Supervise Parturition</p>	<p><i>Trainee must be able to:</i></p> <p>P1. Ensure timely isolation of pregnant animals ready to parturate</p> <p>P2. Ensure proper bedding for hygienic conditions in calving pens</p> <p>P3. Deploy an experienced and well equipped attendant for safe parturition.</p>	<p><i>Trainee must know and understand:</i></p> <p>K1. Parturition stages</p> <p>K2. Importance of post-parturition care</p> <p>K3. Importance of bedding and hygiene during parturition</p> <p>K4. Factors leading to difficult birth and retained placenta</p>

Competency Unit	Performance Criteria	Knowledge and Understanding
	P4. Arrange for competent Vet to attend any complication	
C5. Supervise New-born Care	<p><i>Trainee must be able to:</i></p> <p>P1. Supervise new-born animal by ensuring animal welfare requirements are met</p> <p>P2. Weigh and record the new-born as soon as possible</p> <p>P3.</p>	<p><i>Trainee must know and understand:</i></p> <p><i>K1. Animal welfare requirement for new-born animals which includes</i></p> <ul style="list-style-type: none"> <li>• <i>Mechanism of respiration &amp; blood circulation</i></li> <li>• <i>Disease transmission through orifices</i></li> <li>• <i>Immunization &amp; importance of colostrums feeding</i></li> <li>• <i>Activate respiratory mechanism</i></li> <li>• <i>Ensure Licking by dam for blood circulation</i></li> <li>• <i>Ensure Naval disinfection &amp; Ligation for disease control</i></li> <li>• <i>Ensure immediate colostrum feeding for immunity</i></li> </ul> <p><i>K2. Importance of record management</i></p>
C6. Assist in implementation of breeding plan	<p><i>P1. Assist in selection of bull and semen for breeding purpose</i></p> <p><i>P2. Update the Cow/Buffalo Calendar for accurate action</i></p> <p><i>P3. Maintain the pedigree records for annual breeding plan at farm</i></p>	<p><i>K1. Importance of breed characteristics and semen selection</i></p> <p><i>K2. Role of cow calendar in breeding plans</i></p> <p><i>K3. Breeding and Genetics, available genetic resources</i></p> <p><i>K4. Synchronization protocols</i></p>

## Competency Module D: Supervise Milking

**Overview:** This competency standard identifies the competencies required to Supervise Milking. You will be expected to supervise **milking management & Supervise Milk Hygiene**.

Competency Unit	Performance Criteria	Knowledge and Understanding
<b>D1 – Supervise Milking Management</b>	<p><i>Trainee will be able to:</i></p> <ul style="list-style-type: none"> <li>P1. Ensure milking intervals to avoid animal stress</li> <li>P2. Store milk as per defined SOPs</li> <li>P3. Ensure CIP of Milking Equipment to avoid contamination</li> <li>P4. Ensure the utensils used for milking are in compliance with the Food grade standard</li> <li>P5. Perform hand milking and machine milking</li> </ul>	<p><i>Trainee must know and understand</i></p> <ul style="list-style-type: none"> <li>K1. Importance of milking physiology</li> <li>K2. Storage protocols and SOP's</li> <li>K3. Importance of CIP</li> <li>K4. Usage, Availability and comparative advantage of standard shaped utensils</li> <li>K5. SOPs of Food grade standards</li> <li>K6. Hand milking and machine milking process</li> </ul>
<b>D2. Supervise Milk Hygiene</b>	<p><i>Trainee will be able to</i></p> <ul style="list-style-type: none"> <li>P1. Manage Cleanliness of Utensils as per standards</li> <li>P2. Supervise Milkers (Gawala's) Cleaning to prevent contamination</li> <li>P3. Supervise milkers to ensure udders are cleaned according to the standards</li> <li>P4. Ensure Pre and Post Teat Dipping is carried out to prevent mastitis</li> </ul>	<p><i>Trainee must know and understand:</i></p> <ul style="list-style-type: none"> <li>K1. SOPs for cleanliness of utensils, milkers and udder</li> <li>K2. Udder physiology</li> <li>K3. Bacterial attack during milking</li> <li>K4. Disinfectants</li> <li>K5. Mastitis Control Protocols (Teat dipping)</li> </ul>



## Competency Module E: Supervise Farm assets

**Overview:** This competency standard identifies the competencies required to Supervise Farm assets to improve farm efficiency. You will be expected to **Supervise Farm Labour, Maintain Farm Machinery and Provide Suitable Housing**

Competency Unit	Performance Criteria	Knowledge and Understanding
<p><b>E1 – Supervise Farm Labour</b></p>	<p><b><i>Trainee will be able to:</i></b></p> <p>P1. Assign daily duties for the completion of the farm tasks            P2. Monitor Performance for improvements and better utilization of staff            P3. Create conducive environment for efficient output            P4. Supervise Farm staff/security</p>	<p><b><i>Trainee must know and understand</i></b></p> <p>K1. Basic Welfare of labour admissible under the prevailing rules of the country             K2. Performance indicators             K3. Managerial tools             K4. Security protocols</p>
<p><b>E2 – Maintain Farm Machinery</b></p>	<p><b><i>Trainee will be able to:</i></b></p> <p>P1. Ensure smooth operations of farm machinery by calibrating to optimal specifications             P2. Ensure preventive maintenance is carried out according to manufacturer requirement             P3. Adopt safety measures while performing the maintenance of the farm machinery</p>	<p><b><i>Trainee must know and understand</i></b></p> <p>K1. Preventive Maintenance of Machinery like;</p> <ul style="list-style-type: none"> <li>• <b>Milking Machine</b></li> <li>• <b>Milk Chillers</b></li> <li>• <b>Fodder Movers</b></li> <li>• <b>Chopper</b></li> <li>• <b>Harvester</b></li> <li>• <b>Silage Machine</b></li> <li>• <b>Tractor</b></li> <li>• <b>Baling machine</b></li> </ul>

Competency Unit	Performance Criteria	Knowledge and Understanding
	<p>P4. Calibration of weigh bridge to ensure accuracy in weighing</p>	<ul style="list-style-type: none"> <li>• <b>Weighing scales</b></li> <li>• <b>Generators</b></li> </ul>
<p><b>E3 – Provide Suitable Housing</b></p>	<p><b><i>Trainee will be able to:</i></b></p> <p>P1. Ensure the suitable housing of livestock to meet animal comfort standards</p> <p>P2. Supervise the removal of Manure efficiently according to standards and its utilization in biogas plants</p> <p>P3. Ensure the Quarantine Section to prevent the transmission of the disease to livestock</p>	<p><b><i>Trainee must know and understand</i></b></p> <p>K1. Housing standards which include</p> <ul style="list-style-type: none"> <li>• <b>Stall area,</b></li> <li>• <b>Paddock loafing and Rest area,</b></li> <li>• <b>Milking parlour area,</b></li> <li>• <b>Calf pens, heifers and dry animals pens, pregnant animals pens,</b></li> <li>• <b>Bull paddock, Sick animals pen,</b></li> <li>• <b>Cooling systems, water troughs,</b></li> <li>• <b>Sand usage in rest area.</b></li> <li>• <b>Quarantine section</b> <ul style="list-style-type: none"> <li>• Required Space</li> <li>• Clean Water troughs</li> <li>• Farm Hygiene</li> <li>• Weather Stress Management</li> <li>• Lighting</li> </ul> </li> </ul>

Competency Unit	Performance Criteria	Knowledge and Understanding
		K2. Farm hygiene standards K3. Utilization of manure as organic fertilizer and its inversion K4. Biogas plant mechanism as per farm capacity K5. Disease vectors and quarantine procedures

### Competency Module F: Manage Livestock Marketing

**Overview:** This competency standard identifies the competencies required to manage livestock marketing. You will be expected to **Perform sale, purchase and culling of animals according to the farm requirement, Sale of Farm Produce, Purchase of semen doses.**

Competency Unit	Performance Criteria	Knowledge and Understanding
<b>F1. Perform sale, purchase and culling of animals according to the farm requirement</b>	<b>Trainee will be able to:</b> P1. Identify the livestock suitable for sale, purchase or culling according to set criteria <ul style="list-style-type: none"> <li>• Health</li> <li>• Age</li> <li>• Gender</li> </ul>	<b>Trainee will know and Understand</b> K1. Types of livestock and its characteristics <ul style="list-style-type: none"> <li>• Health</li> <li>• Age</li> <li>• Gender</li> </ul>

Competency Unit	Performance Criteria	Knowledge and Understanding
	<ul style="list-style-type: none"> <li>• Price</li> </ul> <p>P2. Make livestock transport arrangements according the size, type and distance to travel for the livestock</p> <p>P3. Apply health and safety procedures according to the set industry standards of animal welfare</p>	<ul style="list-style-type: none"> <li>• Price</li> </ul> <p>K2. Health and safety procedures for livestock transportation</p> <p>K3. Livestock Behaviour</p> <p>K4. Market Trends</p> <p>K5. Different means of transportation</p> <p>K6. Rules and regulations of animal welfare</p>
<b>F2. Sale of Farm Produce</b>	<p><i>Trainee will be able to</i></p> <p>P1. Identify the potential buyers to fetch better price of produce</p> <p>P2. Select cost effective transportation according to the volume of the farm produce.</p> <p>P3. Ensure the quality of farm produce as per industry standards</p>	<p><i>Trainee must know and understand:</i></p> <p>K1 Negotiate the price with buyers</p> <p>K2. Modalities of agreement</p> <p>K3. Modes of transportation</p> <p>K4. Industry standards for farm produce</p>
<b>F3. Purchase of semen doses</b>	<p><i>Trainee will be able to</i></p> <p>P1. Determine the quantity of semen doses according to the farm requirement</p> <p>P2. Identify the appropriate markets/dealers/suppliers for purchases</p> <p>P3. Arrange suitable transportation means for the purchased</p>	<p><i>Trainee must know and understand:</i></p> <p><b>K1. To calculate Quantity of semen doses required for inseminations</b></p> <p>K2. Types of vaccine ,medicines and semen</p>

Competency Unit	Performance Criteria	Knowledge and Understanding
	goods	<p>K3. Date of manufacture and expiry of the product purchased</p> <p>K4. Mode of transportation and protocols to be followed</p>

### Competency Module G: Maintain records for Livestock

**Overview:** This competency standard identifies the competencies required to Maintain Farm Record. You will be expected to **Maintain Farm and Feeding Record**, , **Maintain Production Record**, **Maintain Breeding record** **Maintain Treatment Record & Maintain Farm Assets Record**

Competency Unit	Performance Criteria	Knowledge and Understanding
<b>G1 – Maintain Farm and Feeding Record</b>	<p><i>Trainee will be able to:</i></p> <p>P1. Design the farm records required for farm supervision using templates.</p> <p>P2. Use the records at required intervals to maintain accurate livestock information.</p> <p>P3. Use updated record to supervise farm operations in accordance with the set goals and objective</p> <p>P4. Update the record of human resource</p>	<p><i>Trainee must know and understand</i></p> <p>K1. Designing of templates for farm record</p> <p>K2. Livestock strength, feeding, breeding , treatment and farm assets.</p> <p>K3. Timely availability of feed which include</p> <ul style="list-style-type: none"> <li>• Purchase and source of Feed and Fodder</li> <li>• Feed and Fodder Stock Available</li> <li>• Feed and fodder Utilization record</li> <li>• Urea Molasses Blocks record</li> </ul>

Competency Unit	Performance Criteria	Knowledge and Understanding
		<ul style="list-style-type: none"> <li>• Waste / Leftover record</li> <li>• <b>Minerals Record</b></li> </ul> K4. Importance of record keeping K5. Basic computer skills to design and use record template K6.
<b>G2. Maintain Production Record</b>	<p><i>Trainee will be able to:</i></p> <p>P1. Update the Production record to calculate the feed requirements of the animals &amp; farm productivity that includes:</p> <ul style="list-style-type: none"> <li>• Milk</li> <li>• By-products</li> </ul>	<p><i>Trainee must know and understand:</i></p> <p>K1. Importance of milk and by-products record            K2. Templates            K3. Calculation of Feed Requirements</p>
<b>G3. Maintain Breeding record</b>	<p><i>Trainee will be able to:</i></p> <p>P1. Update the breeding record to meet the future breeding plans at the farm that includes:</p> <ul style="list-style-type: none"> <li>• Pedigree record</li> <li>• Mating/AI Record</li> <li>• Reproductive disease record</li> <li>• Semen record</li> </ul>	<p><i>Trainee must know and understand:</i></p> <p>K1. Importance of maintaining breeding record            K2. Templates            K3. Semen Catalogue reading and breeding values</p>

Competency Unit	Performance Criteria	Knowledge and Understanding
	<ul style="list-style-type: none"> <li>• <i>Heat Detection Record</i></li> <li>• <i>Herd fertility record</i></li> </ul>	
<b>G4. Maintain Treatment Record</b>	<p><i>Trainee will be able to:</i></p> <p><i>P1. Update the treatment record for future selection &amp; replacement and necessary remedies</i></p>	<p><i>Trainee must know and understand:</i></p> <p><i>K1. Importance of treatment record</i></p> <p><i>K2. Templates</i></p>
<b>G5. Maintain Farm Assets Record</b>	<p><i>Trainee will be able to:</i></p> <p><i>P1. Update the farm assets record to assure its proper placement</i></p>	<p><i>Trainee must know and understand:</i></p> <p><i>K1. Importance of farm assets record</i></p> <p><i>K2. Templates</i></p>

## 5. List of Tools, Machinery & Equipment

<b>Name of Trade</b>	<b>Dairy Farm Supervisor</b>	
<b>Duration</b>	1 year	
<b>Sr. No.</b>	<b>Name of Item/ Equipment / Tools</b>	<b>Quantity</b>



1.	Dummy Model for Practical	01
2.	AI Tool Kit (complete)	20
3.	Milking Machine models	05
4.	Housing Lay out Model	05
5.	Experimental Cows	10
6.	First Aid Tools Kits	02
7.	Tractors	01
8.	Trolley	01
9.	Plough	01
10.	Blades	01
11.	Rotavator	01
12.	Fertilizer spreader	01
13.	Mower/Fodder Cutter	01
14.	Hay Rake	01
15.	Balers	01
16.	Fodder Cutter/Chopper	01

17.	Silage Machine	01
18.	Combine harvester for Silage	
19.	Sickles	20
20.	Wheel barrow	05
21.	Shovels	05
22.	Generator	01
23.	Welding Plant	01
24.	Electrical Maintenance Kit	01
25.	Mechanical Tool Kit	01
26.	Drenching Gun	05
27.	Vaccinator gun	05
28.	Tags and applicators	05
29.	Uniform/Dungarees	20
30.	De-horner	05
31.	Hoof trimmer	05
32.	Rope set	05

33.	Weighing scale	05
34.	Spray machine	05
35.	Milk cane	05
36.	Milk sampler	05
37.	Milk Chiller	01
38.	Electrical fence	01
39.	Wrapping machine	01
40.	Milk Buckets	05
41.	Water troughs	01
42.	Water pump	01
43.	Auto valve	05
44.	Cleaning brushes	20
45.	Cow Calendar	05
46.	Weighing bridge	01
47.	Weighing scale for calves	01
48.	Ultra sound machines	01

49.	Dystokia kit	01
50.	Sampling bottles	10
51.	Disinfectants	02
52.	Vaccine Kits	05
53.	Measuring tape	05
54.	Foot dips	05
55.	Sprinklers	10
56.	Cow rest mats	05
57.	Manure spreader	01
58.	Computer	10
59.	Calf feeding buckets	05
60.	Cattle Crush	01
61.	Specialized Cooling Fans	01
62.	Surgical Kit	01
63.	CMT Kits	05
64.	Milk Testing Kits	05

65.	Freezers	01
66.	Castrator	05
67.	Bathing Tub	02
68.		
69.		

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