



Competency Standard (CS)

Cattle Rearing

Level-3

Agriculture Sector

Competency Standard Code: CS-AGRI-CR-L3-EN-V1



**National Skills Development Authority
Prime Minister's Office
Government of the People's Republic of Bangladesh**

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National Skills Development Authority
Prime Minister's Office
Level: 10-11, Biniyog Bhaban,
E-6 / B, Agargaon, Sher-E-Bangla Nagar Dhaka-1207, Bangladesh.
Email: ec@nsda.gov.bd
Website: www.nsda.gov.bd.
National Skills Portal: <http://skillsportal.gov.bd>

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This Competency Standard for **Cattle Rearing** is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skill ecosystem and delivery mechanism through a combination of Well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. " **Cattle Rearing**" is selected as one of the priority occupations of **Agriculture** Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils, employer associations and employers.

Generally, a competency standard AGRIorms curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the Bangladesh National Qualification Framework (BNQF) and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding elements.

Overview

A **Competency Standard** is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of parts for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of occupation specific experts, academicians, representatives from NSDA and ISC to identify the competencies required of an occupation in **Agriculture Sector**.

Competency standards describe the knowledge, skills and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guides

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key parts of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

.Competency Standards for National Skill Certificate – 3 in

Cattle Rearing, Agriculture Sector

Level Descriptors of Skills Sector, BNQF Level 1-6

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break AGRIformation into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and AGRIformation. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant AGRIformation in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

NSDA	- National Skills Development Authority
CS	- Competency Standard
SCVC	- Standard and Curriculum Validation Committee
ISC	- Industry Skills Council
CBLM	- Competency Based Learning Material
UoC	- Unit of Competency
PPE	- Personal Protective Equipment
OSH	- Occupational Safety and Health
CBC	- Competency Based Curriculum
AGRI	- Agriculture Sector
CR	- Cattle Rearing
CNC	- Computer and Numeric Control
BNQF	- Bangladesh National Qualification Framework
STP	- Skills Training Provider
SOP	- Standard Operating Procedure
UoC	- Unit of Competency
4 IR	- 4th Industrial Revolution

Approved by 33th Authority Meeting of NSDA

Held on 06 May 2024

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**Competency Standards for National Skill Certificate – 3 in
Cattle Rearing
Course Structure**

SL	Unit Code and Title		UoC Level	Nominal Hours
Generic Units of Competencies				55
1.	GU-01-L1-V1	Perform Housekeeping	1	10
2.	GU-04-L1-V1	Communicate in the Workplace	1	20
3.	GU-15-L4-V1	Develop Entrepreneurship Skills	4	25
Sector Specific Units of Competencies				30
4.	SU- AGRI -01-L2-V1	Apply Safety Measures Based on Cattle Rearing Operations	3	15
5.	SU- AGRI -02-L2-V1	Use Farm Tools and Equipement	3	15
Occupation Specific Units of Competencies				275
6.	OU- AGRI -CR-01-V1	Conduct Pre-Operational Cattle Rearing Activities	3	30
7.	OU- AGRI - CR -03-V1	Perform Meat Purpose Cattle Rearing	3	80
8.	OU- AGRI - CR -04-V1	Perform Dairy Cattle Rearing	3	85
9.	OU- AGRI - CR -05-V1	Perform Dual Purpose Cattle Rearing	3	80
Total Nominal Hours				360

Units & Elements at a Glance:

Generic Unit of Competency -55 Hrs.

Code	Unit of competency	Elements of competency	Duration (hours)
GU-01-L1-V1	Practice Housekeeping Procedure	- Sort and remove unnecessary items - Arrange items - Maintain work area, tools and equipment - Follow standardized work process and procedure - Perform work spontaneously.	10
GU-04-L1-V1	Communicate in the workplace	- Receive verbal instructions. - Interpret verbal and written information/ instruction - Convey instructions using verbal and written forms of communication - Complete written documentatio - Write simple routine workplace documents in english	20
GU-15-L4-V1	Develop Entrepreneurship Skills	- Recognize concept of entrepreneurship - Explain functions of entrepreneur - Explain role of entrepreneur in economic development - Plan for business and marketing - Explain small business - Interpret reasons of failure and success in small business.	25
Total Hours			55

Sector Specific Units of Competencies (30 Hours)

Code	Unit of competency	Elements of competency	Duration (hours)
SU-AGRI-01-L3-V1	Apply Safety Measures in Farm Operation (Cattle Rearing)	- Follow OSH procedure - Use Cattle Rearing tools, equipment and materials safely - Follow biosecurity and biosafety - Maintain cleanliness and store tools and equipment	15

SU-AGRI-02-L3-V1	Use Farms Tools and Equipement	1. Prepare for work 2. Use farm tools 3. Use farm equipment 4. Perform preventive maintenance	15
Total hours			30

Occupation Specific Unit of Competencies – 275 Hours

Code	Unit of Competency	Elements of Competency	Duration (hours)
OU-AGRI-CR-01-L3-V1	Conduct Pre-Operational Cattle Rearing Activities	1. Select site 2. Facilitate cattle rearing 3. Monitor suitability 4. Prepare cattle rearing infrastructure facilities 5. Secure facilities	30
OU-AGRI-CR-02-L3-V1	Perform Meat Purpose Cattle Rearing	1. Select breed 2. Carry out initial care 3. Provide feed to fatten 4. Conduct primary healthcare and control disease 5. Maintain facilities and equipment 6. Perform record keeping 7. Perform marketing and sales	80
OU-AGRI- CR-03-L3-V1	Perform Daity Callte Rearing	1. Provide housing and facilities 2. Select breed and carry out initial care 3. Provide feed to dairy cattle 4. Execute reproductive management 5. Conduct primary healthcare and control disease 6. Execute milking and calf management 7. Perform record keeping and analyze data 8. Perform marketing and sales	85
OU- IS -CR-04-L3-V1	Perform Dual Purpose Cattle Rearing	1. Provide housing and facilities 2. Select breed and carry out initial care 3. Provide feed to cattle 4. Execute reproductive management 5. Conduct primary healthcare and control disease	80

		6. Execute milking and calf management 7. Perform record keeping 8. Perform marketing and sales	
Total hours			275

Generic Unit of Competenceis

Unit Code and Title	GU013L2V1: Practice Housekeeping Procedure
Unit Descriptor	This unit covers the knowledge, skills and attitude required to Practice housekeeping procedure. It specifically includes sorting and removing unnecessary items, arranging items, maintaining work area, tools and equipment, following standardized work process and procedure and performing work spontaneously.
Nominal Hours	10 Hours
Elements of Competency	Performance Criteria <u>Bold underlined</u> terms are elaborated in the Range of Variables
1. Sort and remove unnecessary items	1.1 Reusable, recyclable materials are sorted in accordance with company/office procedures; 1.2 <u>Unnecessary items</u> are removed and disposed of in accordance with company or office procedures
2. Arrange items	2.1 Items are arranged in accordance with company/office housekeeping procedures; 2.2 Work area is arranged according to job requirements; 2.3 Activities are prioritized based on instructions; 2.4 Items are provided with clear and visible <u>identification marks</u> based on procedure; 2.5 Safety equipment and evacuation passages are kept clear and accessible based on instructions
3. Maintain work area, tools and equipment	3.1 Cleanliness and orderliness of work area is maintained in accordance with company/office procedures; 3.2 Tools and equipment are cleaned in accordance with manufacturer's instructions/manual ; 3.3 <u>Minor repairs</u> are performed on tools and equipment in accordance with manufacturer's instruction/manual ; 3.4 Defective tools and equipment are reported to immediate supervisor
4. Follow standardized work process and procedure	4.1 Materials for common use are maintained in designated area based on procedures ; 4.2 Work is performed according to standard work procedures. Abnormal incidents are reported to immediate supervisor
5. Perform work spontaneously	5.1 Work is performed as per instruction; 5.2 Company and office <u>decorum</u> are followed and complied with; 5.3 Work is performed in accordance with OSH requirements
Range of Variables	
Variable	Range (may include but not limited to):
1. Unnecessary items	1.1 Non-recyclable materials 1.2 Pictures, posters and other materials not related to work activity 1.3 Unserviceable tools and equipment 1.4 Waste materials

2. Identification marks	2.1 Color coding 2.2 Labels 2.3 Tags
3. Minor repairs	3.1 Application of lubricants 3.2 Replacement of parts 3.3 Sharpening of tools 3.4 Tightening of nuts, bolts and screws
4. Decorum	4.1 Behavior 4.2 Company/office rules and regulations 4.3 Company/office uniform
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspects of competency	1.1 Sorted and removes unnecessary items 1.2 Arranged items 1.3 Maintained work area, tools and equipment 1.4 Followed standardized work process and procedures 1.5 Performed work spontaneously
2. Underpinning knowledge	2.1 Environmental requirements relative to work safety 2.2 Principles of 5S 2.3 Reading skills required to interpret instructions 2.4 Work process and procedures 2.5 Work-related documentation requirements
3. Underpinning skills	3.1 Arranging items 3.2 Maintaining work area, tools and equipment 3.3 Following standardizing work process
4. Underpinning attitude	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource implications	The following resources must be provided: 5.1 Work place Procedure 5.2 Materials relevant to the proposed activity 5.3 All tools, equipment, material and documentation required. 5.4 Relevant specifications or work instructions

6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated work place after Completion of the training module 7.2 Assessment should be done by NSDA certified assessor
Accreditation Requirements Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit code and Title	GU012L2V1: Communicate in the Workplace
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSAs) required to communicate in the workplace. It includes the tasks of receiving verbal instructions. interpreting verbal and written information/ instruction, conveying instructions using verbal and written forms of communication, completing written documentation, writing simple routine workplace documents in English and participating in work place meetings and discussions
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables Training Components
1. Receive verbal instructions.	1.1 Instructions are accessed and interpreted; 1.2 Questions are asked to clarify understanding or gain more information; 1.3 Information/instruction is recorded.
2. Interpret verbal and written information/ instruction	2.1 <u>Written instructions</u> are interpreted; 2.2 Work <u>signage's</u> are properly responded; 2.3 Routine written instructions are followed in sequence; 2.4 Feedback is given to workplace supervisor.
3. Convey instructions using verbal and written forms of communication	3.1 Relevant <u>communication</u> methods are used to transmit instructions; 3.2 Appropriate non-verbal communication is used; 3.3 Channels of communication are identified and followed 3.4 Communication <u>tools and equipment</u> are operated and faults are identified and reported; 3.5 Information is conveyed using appropriate <u>forms</u> .
4. Complete written documentation	4.1 All required <u>documentation</u> is completed; 4.2 Workplace data are recorded; 4.3 Written information/instruction is passed to personnel.
5. Write simple routine workplace documents in english	5.1 Simple routine workplace documents are prepared using key words, phrases, simple sentences and visual aids where appropriate; 5.2 Key information is written in the appropriate places in standard forms; 5.3 Internet is used to communicate with the appropriate places.
6. Participate in work place meetings and discussions	4.1 Meetings are attended regularly and on time; 4.2 Meeting inputs are consistent with the meeting purpose and established protocols; 4.3 Opinions are expressed without interruption; 4.4 Meeting outputs are processed and implemented.

Range of Variables	
Variable	Range (may include but not limited to):
1. Written instructions	1.1 Supervisor's/Manager's Instructions 1.2 Memoranda 1.3 Rules and Regulations 1.4 Signage 1.5 Approved Work Plan 1.6 External communications
2. Workplace guidelines	2.1 Labor Policies and Guidelines 2.2 Written Instructions 2.3 Operations Manual 2.4 Organizational Manuals 2.5 Quality Assurance Handbook
3. Signage	3.1 On-site direction signs 3.2 Common site warnings 3.3 Location signs 3.4 Traffic signs
4. Communication	4.1 Verbal instructions 4.2 Written instructions 4.3 Online communication
5. Tools and machinery	5.1 Telephone 5.2 Mobile Phone 5.3 Two-way radio 5.4 Computers 5.5 Forms 5.6 Memo
6. Forms	6.1 Memorandum 6.2 Requisitioning Form 6.3 Personnel Form 6.4 Safety Report Form
7. Documentation	7.1 Reports (Monthly, Quarterly, Half-Yearly, Annual) 7.2 Plans (Strategic Plan, Operational Plan, Monthly Schedule) 7.3 Monitoring and Evaluation Report 7.4 Minutes of Meetings
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency	
1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 demonstrated knowledge of workplace procedures in receiving, interpreting and conveying verbal & written communication. 1.2 satisfied the requirements mentioned in the Performance Criteria and Range of Variables.

2. Underpinning Knowledge	2.1 Workplace Communication Policies, Standards and Procedures 2.2 Verbal and Non-verbal communication 2.3 Modes of Communication 2.4 Communication Equipment: Types, Uses and Faults 2.5 Channels of Communication
3. Underpinning Skills	3.1 Receiving verbal instructions. 3.2 Interpreting verbal and written information/ instruction 3.3 Conveying instructions using verbal and written forms of communication 3.4 Completing written documentation 3.5 Participating in workplace meetings and discussions
4. Underpinning Attitude	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace 4.6 Communication with peers and seniors in workplace
5. Resource Implications	The following resources must be provided: 5.1 Pens 5.2 Telephone 5.3 Computer 5.4 Writing materials 5.5 Online communication
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test 6.5 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by NSDA certified/ nominated assessor
Accreditation Requirements Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	GU-15-L4-V1: Develop Entrepreneurship Skills
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to develop entrepreneurship skills. It specially includes the task of recognizing concept of entrepreneurship, functions of entrepreneur explaining role of entrepreneur in economic development, planning for business and marketing, explaining small business and Interpreting reasons of failure and success in small business.
Nominal Hours	25 Hours
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables
1. Recognize concept of Entrepreneurship	1.1 Entrepreneurship is defined; 1.2 Advantages of entrepreneurship is discussed; 1.3 Strength, Weakness, Opportunity and Threat (SWOT) is analyzed for business; 1.4 Methods of operating salon in profitable manner is discussed; 1.5 Importance of controlling expenses and cost saving methods is discussed; 1.6 The units of sale for different types of services are Identified; 1.7 Future prospects of business are Identified.
2. Explain functions of Entrepreneur	2.1 Important aspects of business including selection business place, services to render & monetary matters are discussed; 2.2 Different business situation and importance of compiling data regarding clients, income, expenses are discussed; 2.3 Goals for sales of business is identified; 2.4 Source and way of financing in small business is identified; 2.5 Method for building a professional team is discussed.
3. Explain role of Entrepreneur in Economic Development	3.1 Plan to play vital role to boost economy by creating and providing new job opportunities are discussed; 3.2 Method to develop hiring plan as per need of business and importance of depositing contributions in government departments are discussed; 3.3 Methods to generate maximum profits and expansion plan of business is discussed;
4. Plan for Business and marketing	4.1 Business plan is prepared as per market demands; 4.2 Areas of business or services which are more profitable and popular in clients are identified; 4.3 Services and products offered by the competitors is analyzed and business strategy is made accordingly; 4.4 Estimate of finance is prepared for required business;

	4.5 Methods for attaining knowledge of current market trends are discussed.
5. Explain small business	5.1 Small business is defined; 5.2 Money management and cash flows are explained; 5.3 Importance of customer satisfaction is discussed; 5.4 Customers comfort policies is explained; 5.5 Importance of maintenance of record of purchases, sales, inventory and list of regular customers are explained; 5.6 Branding of business is explained; 5.7 Methods to build team of honest workers on long term basis are explained.
6. Interpret reasons of failure and success in small business	6.1 Fields of business causing loss is identified; 6.2 Key factor for selection of proper suitable location of business place easily accessible is discussed for customers; 6.3 Factors annoying customers by action of workers are Identified; 6.4 Control of utility bills especially turning off extra lights and ACs when client is not in service discussed; 6.5 Importance to make purchases of best items keeping in view quality, quantity and prices are explained; 6.6 Communicate with the customers in effective conversation and good relations are discussed; 6.7 Time schedule is prepared for self-workers and services.
Range of Variables	
Variables	Range (may include but not limited to):
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical Aspects of Competency	Assessment required evidence that the candidate 1.1 Recognized concept of entrepreneurship 1.2 Functioned of entrepreneur 1.3 Explained role of entrepreneur in economic development 1.4 Planned for business and marketing 1.5 Explained small business 1.6 Interpreted reasons of failure and success in small business
2. Underpinning Knowledge	2.1 Cost saving methods. 2.2 Factors for forecasting of future market trends 2.3 Planning techniques for rates and location identification for better business opportunities. 2.4 Importance of client's data and skills for efficient financial controls of business. 2.5 Techniques for increasing sales of business 2.6 Importance of team building.

	2.7 Importance of appropriate and suitable work 2.8 Force for the business, prevailing labor laws and prevailing taxes levied on the business. 2.9 Important factors for expansion plan according to demand and supply position prevailing in market. 2.10 Market trends 2.11 Profitable and popular services of business. 2.12 Procedure of implementation of business and marketing plan 2.13 Capital requirements for business. 2.14 Possible sources of finance 2.15 Techniques of money management. 2.16 Importance of customer's satisfaction and demands of clients 2.17 Importance of customer's comfort level in terms of prices and services. 2.18 Techniques of maintaining records of purchases, sales and client's data. 2.19 Major fields of business causing loss. 2.20 Importance of easily accessible location for setting up business. 2.21 Importance of good behavior of workers with the customers. 2.22 Methods of cost saving steps in salon. 2.23 Method of purchases of materials competitively and cost efficiently 2.24 Importance of pleasant communication skills. 2.25 Importance of time management and the role of proper time
3. Underpinning Skills	3.1 Applying skills of communicating 3.2 Applying skills of literacy and numeracy 3.3 Analyzing business environment 3.4 Planning for own business 3.5 Using the effective tools to make presentations 3.6 Identifying business places 3.7 Identifying target customers 3.8 Maintaining business plan 3.9 Handling business promoting media and equipment
4. Required Attitudes	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace

5. Resource Implications	5.1 Workplace (actual or simulated) 5.2 Fire extinguisher 5.3 Uninterrupted power supply 5.4 Internet facilities 5.5 Adequate Surveillance devices 5.6 Manuals, catalogs and magazine 5.7 Competency Based Learning Materials (CBLM)Internet facilities
6. Methods of Assessment	Assessment methods may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by NSDA certified/ nominated assessor
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Sector Specific Unit of Competencies

Unit Code and Title	SU-AGRI-03-L3-V1: Apply Safety Measures in Farm Operarion (Cattle Rearing)
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to apply safety measures in farm operations. It specifically includes the tasks of following OSH procedure, using Cattle Rearing tools, equipment and materials safely, following biosecurity and biosafety and maintaining cleanliness and store tools and equipment.
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Follow OSH procedure	1.1 <u>Personal protective equipment (PPE)</u> is collected and worn as required; 1.2 PPE is maintained to keep them operational and compliant with OSH regulations; 1.3 <u>Hazards</u> and risks are identified and controlled; 1.4 Incidents arising from hazards and risks are reported to <u>relevant person</u> ; 1.5 Workplace <u>emergency procedures</u> are followed; 1.6 First aid procedures is applied during emergency situations.
2. Use Cattle Rearing tools, equipment and materials safely	2.1 Necessary <u>tool and equipment</u> are identified and collected as per work requirement; 2.2 Tools and equipment are used as per workplace procedure following OSH; 2.3 <u>Materials</u> are selected and used as per work requirement; 2.4 Tools and equipment are handled in safe manner.
3. Follow biosecurity and biosafety	3.1 Fencing is applied to protect external intervention; 3.2 Personal hygiene and disinfect are maintained to work in different sheds as per workplace standard; 3.3 <u>Necessary precautions</u> are measured during entering to cattle farm.
4. Maintain cleanliness and store tools and equipment	4.1 Cow shed is cleaned on the basis of hygiene requirement; 4.2 Used tools and outfit are cleaned and stored in hygienic and designated areas; 4.3 Unused materials are stored according to recommendation; 4.4 <u>Waste materials</u> are disposed according to environmental compliances.
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Hand Gloves 1.2 Gum boot

	1.3 Face mask 1.4 Apron 1.5 Head mask
2. Hazards	2.1 Chemical hazards 2.2 Biological hazards 2.3 Physical Hazards 2.4 Mechanical and Electrical Hazard 2.5 Mental hazard
3. Relevant Person	3.1 Fire service 3.2 Police station 3.3 Upazilla livestock office 3.4 Upazilla health complex
4. Emergency procedures	4.1 Fire fighting 4.2 Earthquake 4.3 Tornado 4.4 Nore Western 4.5 flood 4.6 Lightening 4.7 Medical and first aid 4.8 Quarrentine and Isolation
5. Tools and equipment	5.1 Tools ▪ Spade ▪ Measuring tape ▪ Knife/cutter ▪ Thermometer ▪ Soil pH meter ▪ TDS meter ▪ Bucket ▪ Basket ▪ Mug ▪ Belcha ▪ Shovel ▪ Antikick bar ▪ Cutting pliers ▪ Scissor ▪ Calculator ▪ Weighing scale ▪ Garvage bins ▪ Muzzle ▪ Ear tagging applicator ▪ Dehorning tools ▪ Burdizo's castrator ▪ Lactometer

	▪ Brix Refractometer ▪ Hydrometer 5.2 Equipment ▪ Milking machine ▪ Grass cutter ▪ Grass carrying van ▪ Chopping machine ▪ Generator ▪ Fan ▪ Light ▪ Trolley ▪ Hay feeders
6. Materials	6.1 Bamboo 6.2 Rod 6.3 Polythene 6.4 Fencing Net 6.5 Rope 6.6 Rubber mat 6.7 Feeding Materials: ▪ Hay ▪ Silage ▪ Straw ▪ Urea Molasses Block (UMB) ▪ Urea Molasses straw (UMS) ▪ Urea Treated straw (UTS) ▪ Total Mixed Ration (TMR) ▪ Grain ▪ Mineral supplements ▪ Feed bins ▪ Feed bunks ▪ Hay racks ▪ Feed scoops. ▪ Fertilizers 6.8 Clip board 6.9 Record Keeping board 6.10 Plastic pipe/PVC pipe 6.11 Hose pipes
7. Necessary precautions	7.1 Using foot bath 7.2 Taking shower from disinfectant booth 7.3 Applying disinfected spray 7.4 Wearing sterilized cloth
8. Waste materials	8.1 Manure 8.2 Garbage 8.3 Used packing bags and cans

	8.4 Unused farm chemicals 8.5 Expired reagents 8.6 Disposal of carcass
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Followed OSH procedure 1.2 Used aquacultural tools, equipment and materials safely 1.3 Followed biosecurity measures for safety 1.4 Maintained cleanliness and store tools and equipment
2. Underpinning knowledge	2.1 Define OSH 2.2 Work safety procedures 2.3 Emergency procedures 2.4 Different types of hazards 2.5 PPE and there uses 2.6 Personal hygiene practices 2.7 OSH awareness 2.8 Good cattle rearing practices 2.9 List of tool and equipment 2.10 Use of cattle rearing tools and equipment 2.11 Necessity of using fencing 2.12 Materials using for cattle rearing 2.13 Necessary precaution for cattle rearing 2.14 Dispose of waste materials 2.15 Biosecurity and biosafety
3. Underpinning skills	3.1 Using PPE 3.2 Identifying hazards 3.3 Responding to emergency procedure 3.4 Communication skills 3.5 Presentation skills 3.6 Problem solving skills 3.7 Handling tools and equipment safely 3.8 Following biosecurity and biosafety procedure 3.9 Maintaining personal hygiene 3.10 Keeping record
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn farm operation 4.6 Tidiness and timeliness

	4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace/Farm 5.2 Tools, equipment and facilities appropriate to the process or activity. 5.3 Materials relevant to the proposed activity. 5.4 Outfits appropriate in applying safety measures. 5.5 Internet facilities 5.6 Record book 5.7 Manuals, catalogs and magazine 5.8 Competency Based Learning Materials (CBLM)
6. Methods of assessment	Assessment methods may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a NSDA certified/nominated assessor.
Accreditation Requirements Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	SU-AGRI-02-L3-V1: Use Farm Tools and Equipment
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use farm tools and equipment. It specifically includes the tasks of preparing for work, using farm tools, using farm equipment and performing preventive maintenance.
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Prepare for work	1.1 <u>Personal protective equipment (PPE)</u> is selected and collected as required; 1.2 Personal protective equipment (PPE) is correctly used in accordance with work requirement; 1.3 <u>Hazards</u> and risks are identified and controlled; 1.4 Necessary <u>tools and Equipment</u> are identified and collected as per work requirement.
2. Use Farm tools	2.1 Farm tools are checked for faults and defective tools reported in accordance with farm procedures; 2.2 Tools are used as per job requirement following safe procedure; 2.3 First aid procedures is applied during emergency situations.
3. Use Farm equipment	3.1 Instructional manual of the farm are carefully read prior to operation; 3.2 <u>Pre-operation check-up</u> is conducted in line with manufacturers manual; 3.3 Faults in farm equipment are identified and reported in line with farm procedures; 3.4 Equipment are used as per job requirement following safe procedure; 3.5 First aid procedures is applied during emergency situations.
4. Perform Preventive maintenance	4.1 Schedule of preventive maintenance is interpreted; 4.2 Tools and equipment are cleaned immediately after use in line with farm procedures; 4.3 Necessary lubricant or grease is applied as per manual; 4.4 Routine check-up and maintenance are performed as per schedule;

	4.5 Tools and equipment are stored in designated areas according to farm procedures.
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Gloves 1.2 Safety boots 1.3 Goggles 1.4 Face mask 1.5 Apron
2. Hazards	2.1 Chemical hazards 2.2 Biological hazards 2.3 Physical hazards 2.4 Mechanical and electrical hazard 2.5 Mental hazard 2.6 Ergonomic hazard
3. Tools	3.1 Spade 3.2 Plough 3.3 Hoe 3.4 Harrow 3.5 Ladder 3.6 Filter net 3.7 Measuring tape 3.8 Meter scale 3.9 Scissors 3.10 Knife 3.11 Hygrometer 3.12 Thermometer 3.13 PH meter 3.14 Basket 3.15 Bucket 3.16 Belcha 3.17 Shouvel 3.18 Cutting pliers 3.19 Teat dipper 3.20 Travis
4. Farm equipment	4.1 Milking machine 4.2 Grass cutter 4.3 Grass carrying van 4.4 Chopping machine 4.5 Generator 4.6 Fan 4.7 Light

	4.8 Trolly 4.9 Hay feeders 4.10 Water pump 4.11 Water tank 4.12 CC Camera
5. Pre operation check up	5.1 Cleanliness 5.2 Tires 5.3 Brake fluid 5.4 Fuel 5.5 Water 5.6 Lubricants 5.7 Battery 5.8 Electricity
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Prepared for work 1.2 Used Farm tools 1.3 Used Farm equipment 1.4 Performed Preventive maintenance
2. Underpinning knowledge	2.1 Define OSH 2.2 Work safety procedures 2.3 Different types of hazards 2.4 PPE and there uses 2.5 Necessity of Personal hygiene 2.6 Safe use of farm tools and equipment 2.7 Pre-operational check up 2.8 Types of maintenance 2.9 Necessity of preventive maintenance
3. Underpinning skills	3.1 Handling of PPE 3.2 Identifying hazard 3.3 Controlling hazard 3.4 Maintaining cleanliness 3.5 Communication skills 3.6 Presentation skill 3.7 Computation skill 3.8 Handling tools and equipment 3.9 Applying techniques of lubricant and grease 3.10 Performing pre-operational check up
4. Required attitude	2.1 Commitment to occupational health and safety

	2.2 Sincere and honest to duties 2.3 Promptness in carrying out activities 2.4 Environmental concerns 2.5 Eagerness to learn farm operation 2.6 Tidiness and timeliness 2.7 Respect of peers and seniors in workplace 2.8 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace/Farm 5.2 Tools, equipment and facilities appropriate to the process or activity. 5.3 Materials relevant to the proposed activity. 5.4 Outfits appropriate in applying safety measures.
6. Methods of assessment	Assessment methods may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module 7.2 Assessment should be done by a NSDA certified/nominated assessor
Accreditation Requirements Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Occupation Specific Unit of Competencies

Unit Code and Title	OU-AGRI-CR-01-L3-V1: Conduct Pre-Operational Cattle Rearing Activities
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to a conduct pre-operational cattle rearing activities. It specifically includes the tasks of selecting site, facilitating cattle rearing, monitoring suitability, preparing cattle rearing infrastructure facilities and securing facilities
Nominal Hours	30 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Select site	1.1 <u>Types of site</u> are interpreted for cattle rearing ; 1.2 Scope of easy communication is assessed for easy accessibility of raw materials, tools and equipment; 1.3 Accessibility of market is assessed for easy delivery of Cattle Rearing products; 1.4 Source of availability of cheap labour and <u>utilities</u> are identified; 1.5 Agreement is signed for leasing and rental land; 1.6 Social and <u>environmental conditions</u> are interpreted
2. Facilitate cattle rearing	2.1 Source of water is identified; 2.2 Area of grazing land to be required is determined ; 2.3 Availability of green grass is ensured as per volume of cattle rearing; 2.4 Availability of concentrated feed is ensured as per volume of cattle rearing; 2.5 <u>Source of fresh water</u> are selected as per requirement; 2.6 <u>Types of cattle</u> are determined.
3. Monitor suitability	3.1 Food intake is checked properly everyday; 3.2 Health condition is checked; 3.3 Weight gain is monitored; 3.4 Heat detection for breeding is monitored; 3.5 Milk production rate is monitored; 3.6 Environment (Humidity, Temperature, Rain) is checked for suitability of farming.
4. Prepare cattle rearing infrastructure facilities	4.1 Necessary tools and equipemt are identified and collected as per requirement; 4.2 Shed preparation is conducted in accordance to standard procedures and as per requirement; 4.3 Cattle shed is cleaned and disinfected following standard procedures; 4.4 Manger is prepared as per requirement;

	4.5 Store facilities are created on the basis of requirement; 4.6 Quarantine and isolation rooms are prepared; 4.7 Calf cage is prepared as per standard procedure.
5. Secure facilities	5.1 Facilities are checked for rodents and trespassers; 5.2 <u>External trespassers</u> are prevented to enter the cattle rearing facilities; 5.3 Preventive structures are installed during extreme weather; 5.4 Basic post-operative checking of tools and equipment is conducted in accordance with manufacturer's manual; 5.5 Tools, and equipment are cleaned and stored according to approved practices.
Range of Variables	
Variables	Range (may include but not limited to):
1. Types of sites	1.1 Own site 1.2 Rental site 1.3 Government land on lease 1.4 High land 1.5 Free land 1.6 Water absorbable land 1.7 Shed opening direction (South facing)
2. Utilities	2.1 Water source 2.2 Power supply 2.3 Labour 2.4 Transportation 2.5 Storage facilities 2.6 Weather forecasting 2.7 Protective fencing 2.8 Marketing facilities
3. Environmental conditions	3.1 humidity 3.2 Light intensity 3.3 Temperature 3.4 Season 3.5 Photoperiodism 3.6 Natural calamity
4. Water source	4.1 Underground 4.2 Rain water
5. Types of Cattle Rearing	5.1 Beef cattle 5.2 Dairy cattle 5.3 Dual pupose cattle

6. External Trespasser	6.1 Mosquito 6.2 Fly 6.3 Dash 6.4 Dog 6.5 Fox 6.6 Mites 6.7 Malicious
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Selected site for cattle rearing 1.2 Facilitated cattle rearing 1.3 Monitored suitability 1.4 Prepared Cattle Rearing infrastructure facilities 1.5 Secured facilities
2. Underpinning knowledge	2.1 Types of sites 2.2 Importance of easy communication 2.3 Utilities 2.4 Preventive structures 2.5 Environmental conditions 2.6 Water source 2.7 Types of Cattle Rearing 2.8 External Trespasser
3. Underpinning skills	3.1 Communication skills 3.2 Presentation skills 3.3 Maintaining facilities 3.4 Computation skills 3.5 Keeping record 3.6 Determining types of cattle rearing 3.7 Identifying external trespasser
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn farm operation 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace.
5. Resource implications	5.1 Workplace/Farm 5.2 Tools, equipment and facilities appropriate to the process or activity

	5.3 Materials relevant to the proposed activity 5.4 Outfits appropriate in applying safety measures. 5.5 Internet facilities 5.6 Record book 5.7 Manuals, catalogs and magazine 5.8 Competency Based Learning Materials (CBLM)
6. Methods of assessment	Assessment methods may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a NSDA certified/nominated assessor.
Accreditation Requirements Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AGRI- AC-03-L3-V1: Perform Meat Purpose Cattle Rearing
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to perform meat purpose cattle rearing. It specifically includes the tasks of selecting breed, carrying out initial care, providing feed to fatten, conducting primary healthcare and control disease, maintaining facilities and equipment, performing record keeping, performing marketing and sales
Nominal Hours	80 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Select breed	1.1 <u>Different sources</u> of breeding stocks are identified 1.2 Select suitable breeding stock based on <u>desired traits</u> from different source
2. Carry out initial care	2.1 OSH is followed as per workplace requirement; 2.2 <u>Necessary PPE</u> is collected and worn as per workplace requirement; 2.3 Hazards are identified and controlled; 2.4 Selected cattle are shifted to the specified cattle shed following standard procedure; 2.5 The cattle are kept in quarantine to prevent contamination; 2.6 Observation is carried out to check the physical conditions for 7~14days.
3. Provide feed to fatten	3.1 Feed is stored in the designated place in according to manufacturer instruction; 3.2 Feed intake and <u>body condition score (BCS)</u> is monitored to adjust feeding programs as necessary; 3.3 Pasture resources are managed efficiently through supplementing with <u>roughage and concentrate</u> as needed, and providing mineral supplements to address nutritional deficiencies; 3.4 <u>Balanced ration</u> is formulated to meet the nutritional requirements; 3.5 Feed is provided to the cattle on the basis of schedule, weather and standard procedure; 3.6 <u>Feed Conversion Ratio (FCR)</u> is analyzed on the basis of volume of flesh; 3.7 Observation of feeding waste is carried out.
4. Conduct primary healthcare and control disease	4.1 Regular health checking is carried out; 4.2 <u>Deworming</u> is done on the basis of body weight; 4.3 <u>Vaccination</u> schedule is maintained on the basis of manufacturer instruction to prevent disease;

	4.4 Symptom of <u>disease</u> is identified on the basis of eye observation; 4.5 Balance ration is provided to increase growth and reduce nutritional deficiencies; 4.6 Severe Affected cattle are isolated from the stock.
5. Maintain facilities and equipment	5.1 Infrastructure are inspected regularly; 5.2 <u>infrastructures</u> are maintained and cleaned to ensure the safety and comfort of cattle; 5.3 Repairing or upgrading equipment are used for feeding, handling, and other management tasks to optimize efficiency and productivity.
6. Perform record keeping	6.1 Record of weight gain is kept; 6.2 Deworming and vaccination record keeping is performed on the basis of prescribed schedule; 6.3 Disease outbreak record keeping is done ; 6.4 Feed inventory record is maintained; 6.5 Herd size record is kept; 6.6 Income and Expenditure record is maintained to analysis profit and loss; 6.7 Recorded data are analyzed to evaluate the effectiveness of cattle rearing, and to identify areas for improvement.
7. Perform marketing and sales	7.1 <u>Marketing indices</u> of different cattle are ensured; 7.2 Marketing opportunities are identified to determine the most profitable <u>marketing channels</u> for selling cattle; 7.3 Price Negotiation is carried out; 7.4 Transportations are arranged for carrying cattle; 7.5 Necessary paperworks are completed for sales transactions.
Range of Variables	
Variables	Range (may include but not limited to):
1. Different sources	1.1 Local market 1.2 Own farm 1.3 Nearer farm
2. Desired traits	2.1 Sound health 2.2 Color 2.3 Size 2.4 Age 2.5 Shape 2.6 disease resistance 2.7 Production Performance

3. Necessary PPE	3.1 Gloves 3.2 Gum boots 3.3 Goggles 3.4 Face mask 3.5 Apron
4. Hazards	4.1 Physical hazard 4.2 Electrical and mechanical hazard 4.3 Boilological hazard 4.4 Chemical hazard 4.5 Mental hazard 4.6 Ergonomic hazard
5. Body condition score (BCS)	5.1 follow image mentioned at the last page
6. Roughage and concentrate	6.1 Roughage a. Green roughage ▪ Napier ▪ Para ▪ German ▪ Jamboo ▪ Maize b. Dry roughage ▪ Staw ▪ Hay ▪ Husk 6.2 Concentrate a. Rice polish b. Rice bran c. Wheat bran d. Broken maize e. Masterd oil cake f. Soyabin meal g. Til oil cake h. Fish meal
7. Balance ration	7.1 Wheat bran 50% 7.2 Rice polish 20% 7.3 Any cake 10% 7.4 Daler vushi 18% 7.5 Salt 1% 7.6 DCP 1%
8. Feed conversion ratio (FCR)	8.1 Total quantity of feed consumed per cattle in Kg/Mean body weight gain in Kg
9. Deworming	8.1 Feeding oral tablet

	8.2 Feeding liquids medicine 8.3 applying topical treatments. 8.4 Injectable anthelmintics
10. Vaccination	10.1 Anthrax vaccine 10.2 Foot and mouth disease vaccine 10.3 Black quarter vaccine 10.4 Haemorrhagic septicemia vaccine 10.5 Lumpy skin disease vaccine 10.6 Rabies vaccine (post exposure)
11. Disease	11.1 Anthrax 11.2 Foot and mouth disease 11.3 Black quarter 11.4 Haemorrhagic septicemia 11.5 Lumpy skin disease 11.6 Rabies 11.7 Foot rot 11.8 Tympany 11.9 Parasitic infestation 11.10 Poisonous cases
12. Infrastructure	12.1 Fencing 12.2 Water sources 12.3 Handling facilities (Tools and equipment) 12.4 Housing structures 12.5 Grass land
13. Marketing indices	13.1 Desirable marketable size of cattle attained 13.2 Physical appearance 13.3 Age 13.4 Weight 13.5 Skin thickness
14. Marketing chanel	14.1 direct sales ▪ purchase from farm ▪ Sales in local market 14.2 auction market 14.3 Online marketing 14.4 Middle men
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	

1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Selected breed 1.2 Carried out initial care 1.3 Provided feed to fatten 1.4 Conducted primary healthcare and control disease 1.5 Maintained facilities and equipment 1.6 Performed record keeping 1.7 Performed marketing and sales
2. Underpinning knowledge	2.1 Sources of breeding 2.2 Breeding stock 2.3 Desired traits 2.4 Necessity to maintain hygiene 2.5 Necessity of keeping quarantine 2.6 Affect of contamination 2.7 Feed storing system 2.8 Body condition score (BCS) 2.9 Pasture resources 2.10 Roughage and concentrate 2.11 Balanced ration 2.12 FCR calculation 2.13 Deworming process 2.14 Vaccination 2.15 Different disease of cattle 2.16 Severe affected cattle 2.17 Infrastructure 2.18 Importance of record keeping 2.19 Record keeping items 2.20 Importance of data analysis 2.21 Marketing indices 2.22 Marketing channel 2.23 Cost analysis
3. Underpinning skills	3.1 Handling tools and equipment 3.2 Communication skills 3.3 Problem solving skills 3.4 Computation skills 3.5 identifying health conditions of cattle 3.6 Applying the process of feeding cattle 3.7 Applying First Aid for primary healthcare of cattle 3.8 Maintaining quality of feed 3.9 Maintaining infrastructure and facilities 3.10 Maintaining hygiene 3.11 Checking growth rate of cattle 3.12 Determining space required for cattle 3.13 Identifying shape and size of cattle shed

	3.14 Identifying Pasture resources 3.15 Identifying Roughage and concentrate 3.16 Preparing Balanced ration 3.17 Applying Deworming process 3.18 Different disease of cattle 3.19 Identifying Severe affected cattle 3.20 Performing record keeping 3.21 Analyzing data for improvement 3.22 Identifying Marketing channel
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn farm operation 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace/Farm 5.2 Materials relevant to the proposed activity. 5.3 Outfits appropriate in applying safety measures 5.4 Quality water 5.5 Fish harvesting gears and nets 5.6 Equipment for water and fish health test 5.7 Internet facilities 5.8 Record book 5.9 Manuals, catalogs and magazine 5.10 Competency Based Learning Materials (CBLM)
6. Methods of assessment	Assessment methods may include but limited to: 6.1 Written Test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a NSDA certified/nominated assessor.
Accreditation Requirements Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AGRI- CR-03-L3-V1: Perform Dairy Cattle Rearing
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to perform dairy cattle rearing. It specifically includes the tasks of providing housing and facilities, selecting breed and carry out initial care, providing feed to dairy cattle, executing reproductive management, conducting primary healthcare and control disease, executing milking and calf management, performing record keeping and performing marketing and sales
Nominal Hours	85 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Provide housing and facilities	1.1 Infrastructure facilities are prepared on the basis of <u>cattle rearing method</u>; 1.2 Infrastructure is inspected regularly; 1.3 <u>Infrastructures</u> are maintained and cleaned to ensure the safety and comfort of cattle; 1.4 Repairing or upgrading equipment are used for feeding, handling, and other management tasks to optimize efficiency and productivity; 1.5 Clean, comfortable, and well-ventilated housing facilities are provided that protect cattle from extreme weather conditions; 1.6 Adequate space per cow is ensured , with proper drainage and ventilation to minimize the risk of respiratory diseases; 1.7 Feeding and watering equipment are installed that allows easy access to fresh water and a balanced diet.
2. Select breed and carry out initial care	2.1 <u>Necessary PPE</u> is collected and worn as per workplace requirement; 2.2 Hazards are identified and controlled; 2.3 <u>Different sources</u> of breeding stocks are identified; 2.4 Suitable breeding stock is selected based on <u>desired traits</u> from different source; 2.5 Selected cattle are shifted to the specified cattle shed following standard procedure; 2.6 The cattle are kept in quarantine to prevent contamination; 2.7 Observation is carried out to check the physical conditions for 7~14days.

3. Provide feed to dairy cattle	3.1 Feed is stored in the designated place in according to manufacturer instruction; 3.2 Monitor feed intake and milk production to adjust feeding programs as necessary; 3.3 Managing pasture resources efficiently through supplementing with <u>roughage and concentrate</u> as needed, and providing mineral supplements to address nutritional deficiencies; 3.4 Formulating <u>balanced ration</u> to meet the nutritional requirements; 3.5 Feed is provided to the dairy cattle on the basis of schedule, stages, weather and standard procedure; 3.6 Observation of feeding waste is carried out;
4. Execute reproductive management	5.1 Estrus cycles is monitored in cows to optimize timing for artificial insemination (AI) or natural breeding; 5.2 Synchronization programs are implemented to coordinate breeding cycles and improve reproductive efficiency; 5.3 <u>Reproductive technologies</u> are utilized;
5. Conduct primary healthcare and control disease	4.1 Regular health checking is carried out; 4.2 <u>Deworming</u> is done on the basis of body weight; 4.3 <u>Vaccination</u> schedule is maintained on the basis of manufacturer instruction to prevent disease; 4.4 Symptom of <u>disease</u> is identified on the basis of eye observation; 4.5 Balance ration is provided to increase milk and reduce nutritional deficiencies; 4.6 Severe Affected cattle are isolated from the herd.
6. Execute milking and calf management	7.1 Establish a routine milking schedule that provides consistent milking times and minimizes stress on the cows; 7.2 Ensure proper <u>milking procedures</u> are ensured; 7.3 Milk quality is monitored and regular milk testing is conducted; 7.4 Appropriate care is provided for newborn calves, including colostrum feeding, navel disinfection, and housing in clean, dry environments; 7.5 A calf nutrition program is implemented that promotes healthy growth and development, including feeding milk replacer or whole milk, starter feed, and weaning gradually; 7.6 Calf health and growth monitored regularly, intervening promptly to address any health concerns or growth delays;

7. Perform record keeping and analyze data	6.1 Record of weight gain is kept; 6.2 Deworming and vaccination record keeping is performed on the basis of prescribed schedule; 6.3 Disease outbreak record keeping is done ; 6.4 Feed inventory record is maintained ; 6.5 Herd size record is kept; 6.6 Income and Expenditure record is maintained to analysis profit and loss; 6.7 Recorded data are analyzed to evaluate the effectiveness of cattle rearing, and to identify areas for improvement;
8. Perform marketing and sales	7.1 Marketing opportunities are identified to determine the most profitable <u>marketing channels</u> for selling milk and <u>dairy by-product</u> ; 7.2 Price Negotiation is carried out; 7.3 Transportations are arranged for carrying milk and dairy byproduct; 7.4 Necessary paperworks are completed for sales transactions.
Range of Variables	
Variables	Range (may include but not limited to):
1. Cattle rearing method	1.1 Intensive method ▪ Face in system ▪ Face out system 1.2 Semi intensive method 1.3 Extensive method
2. infrastructures	2.1 Fencing 2.2 Water sources 2.3 Handling facilities (Tools and equipment) 2.4 Housing structures 2.5 Grass land
3. Different sources	3.1 Local market 3.2 Own farm 3.3 Nearer farm
4. Desired traits	4.1 Sound health 4.2 Color 4.3 Size 4.4 Age 4.5 Shape 4.6 disease resistance

5. Roughage and concentrate	5.1 Roughage c. Green roughage ▪ Napier ▪ Para ▪ German ▪ Jamboo ▪ Maize d. Dry roughage ▪ Staw ▪ Hay ▪ Husk 5.2 Concentrate a. Rice polish b. Rice bran c. Wheat bran d. Broken maize e. Masterd oil cake f. Soyabin meal g. Til oil cake h. Fish meal
6. Balance Ration	6.1 Calf stage ▪ Maize bran 23% ▪ Wheat bran 30% ▪ Any cake 15% ▪ Dlaer vushi 10% ▪ Rice polish 20% ▪ Salt 1% ▪ DCP 1% 6.2 Heifer stage ▪ Maize bran 20% ▪ Wheat bran 30% ▪ Any cake 18% ▪ Dlaer vushi 10% ▪ Rice polish 20% ▪ Salt 1% ▪ DCP 1% 6.3 Milking stage (Depends on milk production and body weight) ▪ Maize bran 30% ▪ Wheat bran 23% ▪ Any cake 20% ▪ Dlaer vushi 10%

	▪ Rice polish 15% ▪ Salt 1% ▪ DCP 1% 6.4 Dry stage ▪ Maize bran 20% ▪ Wheat bran 33% ▪ Any cake 15% ▪ Dlaer vushi 10% ▪ Rice polish 20% ▪ Salt 1% ▪ DCP 1%
7. Reproductive technology	7.1 Artificial Insemination (AI) 7.2 Natural breeding.
8. Deworming	8.1 Feeding oral tablet 8.2 Feeding liquids medicine 8.3 applying topical treatments. 8.4 Injectable anthelmintics
9. Vaccination	9.1 Anthrax vaccine 9.2 Foot and mouth disease vaccine 9.3 Black quarter vaccine 9.4 Haemorrhagic septicemia vaccine 9.5 Lumpy skin disease vaccine 9.6 Rabies vaccine (post exposure)
10. Disease	10.1 Anthrax 10.2 Foot and mouth disease 10.3 Black quarter 10.4 Haemorrhagic septicemia 10.5 Lumpy skin disease 10.6 Mastitis 10.7 Retained placenta 10.8 Uterine prolapse 10.9 Milk fever 10.10 Ketosis 10.11 Pyometra 10.12 Metritis 10.13 Brocellosis 10.14 Trichomoniosis 10.15 Rabies 10.16 Foot rot 10.17 Tympany 10.18 Parasitic infestation 10.19 Poisonous cases

11. Milking Procedure	11.1 Udder preparation 11.2 Hand milking 11.3 Machine milking 11.4 Maintaining milking time 11.5 Post-milking teat disinfection.
12. Marketing chanel	12.1 direct sales ▪ Purchase from farm ▪ Sales in local market 12.2 Online marketing 12.3 Middle men 12.4 Dairy byproduct
13. Dairy by-product	13.1 Ghee 13.2 Cheese 13.3 Butter 13.4 Yougart 13.5 Dahi 13.6 Sweets 13.7 Pasteurized milk 13.8 Ice-cream 13.9 Chocolet 13.10 Labang 13.11 Matha
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Provided housing and facilities 1.2 Selected breed and carry out initial care 1.3 Provided feed to dairy cattle 1.4 Executed reproductive management 1.5 Conducted primary healthcare and control disease 1.6 Executed milking and calf management 1.7 Performed record keeping and analyze data 1.8 Performed marketing and sales
2. Underpinning knowledge	2.1 Sources of breeding 2.2 Breeding stock 2.3 Desired traits 2.4 Necessity to maintain hygiene 2.5 Necessity of keeping quarantine and isolation 2.6 Affect of contamination 2.7 Feed storing system 2.8 Cattle rearing method 2.9 Components of infrastructure

	2.10 Space required for dairy cattle 2.11 Shape and size of cow shed 2.12 Body condition score (BCS) 2.13 Pasture resources 2.14 Roughage and concentrate 2.15 Balanced ration 2.16 Deworming process 2.17 Vaccination 2.18 Different disease of dairy cattle 2.19 Severe affected dairy cattle 2.20 Milking procedure 2.21 Importance of record keeping 2.22 Record keeping items 2.23 Importance of data analysis 2.24 Marketing channel 2.25 Cost analysis 2.26 Dairy by-product
3. Underpinning skills	3.1 Handling tools and equipment 3.2 Communication skills 3.3 Problem solving skills 3.4 Computation skills 3.5 identifying health conditions of cattle 3.6 Applying the process of feeding cattle 3.7 Applying First Aid for primary healthcare of cattle 3.8 Maintaining quality of feed 3.9 Maintaining infrastructure and facilities 3.10 Checking growth rate of cattle 3.11 Checking milk production ratio 2.27 Determining Space required for dairy cattle 2.28 Identifying Shape and size of cow shed 2.29 Identifying Pasture resources 2.30 Identifying Roughage and concentrate 2.31 Preparing Balanced ration 2.32 Applying Deworming process 2.33 Identifying different disease of dairy cattle 2.34 Identifying Severe affected dairy cattle 2.35 Performing record keeping 2.36 Analyzing data for improvement 2.37 Identifying Marketing channel
4. Required attitude	1.1 Commitment to occupational health and safety 4.1 Sincere and honest to duties 4.2 Promptness in carrying out activities 4.3 Environmental concerns 4.4 Eagerness to learn farm operation

	4.5 Tidiness and timeliness 4.6 Respect of peers and seniors in workplace 4.7 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace/Farm 5.2 Materials relevant to the proposed activity. 5.3 Outfits appropriate in applying safety measures 5.4 Quality water 5.5 Fish harvesting gears and nets 5.6 Equipment for water and fish health test 5.7 Internet facilities 5.8 Record book 5.9 Manuals, catalogs and magazine 5.10 Competency Based Learning Materials (CBLM)
6. Methods of assessment	Assessment methods may include but limited to: 1.1 Written Test 6.1 Demonstration 6.2 Oral questioning 6.3 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a NSDA certified/nominated assessor.
Accreditation Requirements Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.	

Unit Code and Title	OU-AGRI- CR-04-L3-V1: Perform Dual Purpose Cattle Rearing
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to perform dual purpose cattle rearing. It specifically includes the tasks of providing housing and facilities, selecting breed and carrying out initial care, providing feed to dairy cattle, executing reproductive management, conducting primary healthcare and control disease, executing milking and calf management, performing record keeping and performing marketing and sales
Nominal Hours	80 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Provide housing and facilities	1.1 Infrastructure are inspected regularly; 1.2 <u>Infrastructures</u> are maintained and cleaned to ensure the safety and comfort of cattle; 1.3 Repairing or upgrading equipment are used for feeding, handling, and other management tasks to optimize efficiency and productivity; 1.4 Provide clean, comfortable, and well-ventilated housing facilities are provided that protect cattle from extreme weather conditions; 1.5 Adequate space per cattle, is ensured with proper drainage and ventilation to minimize the risk of respiratory diseases; 1.6 Feeding and watering equipment are installed that allows easy access to fresh water and a balanced diet.
2. Select breed and carry out initial care	2.1 <u>Different sources</u> are identified of breeding stocks; 2.2 Suitable breeding stock is selected based on <u>desired traits</u> from different source; 2.3 Selected cattle are shifted to the specified cattle shed following standard procedure; 2.4 The cattle are kept in quarantine to prevent contamination; 2.5 Observation is carried out to check the physical conditions for 7~14days;
3. Provide feed to cattle	3.1 Feed is stored in the designated place in according to manufacturer instruction; 3.2 Feed intake and <u>body condition score (BCS)</u> is monitored to adjust feeding programs as necessary; 3.3 Monitor feed intake and milk production to adjust feeding programs as necessary;

	3.4 Managing pasture resources efficiently through supplementing with <u>roughage and concentrate</u> as needed, and providing mineral supplements to address nutritional deficiencies; 3.5 <u>balanced ration</u> is formulated to meet the nutritional requirements; 3.6 <u>Special technologies</u> are applied to get optimum production; 3.7 Feed is provided to the cattle on the basis of schedule, stages, weather and standard procedure; 3.8 Observation of feeding waste is carried out;
4. Execute reproductive management	4.1 Estrus cycles are monitored in cows to optimize timing for artificial insemination (AI) or natural breeding; 4.2 Synchronization programs are implemented to coordinate breeding cycles and improve reproductive efficiency; 4.3 <u>Reproductive technologies</u> are utilized.
5. Conduct primary healthcare and control disease	5.1 Regular health checking is carried out; 5.2 <u>Deworming</u> is done on the basis of body weight ; 5.3 <u>Vaccination</u> schedule is maintained on the basis of manufacturer instruction to prevent disease; 5.4 Symptom of <u>disease</u> is identified on the basis of eye observation; 5.5 Balance ration is provided to increase milk and reduce nutritional deficiencies ; 5.6 Severe Affected cattle are isolated from the herd.
6. Execute milking and calf management	6.1 A routine milking schedule is established that provides consistent milking times and minimizes stress on the cows; 6.2 Proper <u>milking procedures</u> is ensured; 6.3 Milk quality is monitored and regular milk testing is conducted; 6.4 Appropriate care ia provided for newborn calves, including colostrum feeding, navel disinfection, and housing in clean, dry environments; 6.5 A calf nutrition program is implemented that promotes healthy growth and development, including feeding milk replacer or whole milk, starter feed, and weaning gradually; 6.6 Calf health and growth are monitored regularly, intervening promptly to address any health concerns or growth delays.
7. Perform record keeping	7.1 Record of weight gain is kept ;

	7.2 Deworming and vaccination record keeping is performed on the basis of prescribed schedule; 7.3 Disease outbreak record keeping is done; 7.4 Feed inventory record is maintained; 7.5 Herd size record is kept; 7.6 Income and Expenditure record is maintained to analysis profit and loss; 7.7 Recorded data are analyzed to evaluate the effectiveness of cattle rearing, and to identify areas for improvement.
8. Perform marketing and sales	8.1 <u>Marketing indices</u> of different cattle are ensured; 8.2 Marketing opportunities are identified to determine the most profitable <u>marketing channels</u> for selling milk and <u>dairy by-product</u>; 8.3 Price Negotiation is carried out; 8.4 Transportations are arranged for carrying milk and dairy byproduct; 8.5 Necessary paperworks are completed for sales transactions.
Range of Variables	
Variables	Range (may include but not limited to):
1. Infrastructures	1.2 Fencing 1.3 Water sources 1.4 Handling facilities (Tools and equipment) 1.5 Housing structures 1.6 Grass land
2. Different sources	2.1 Local market 2.2 Own farm 2.3 Nearer farm
3. Desired traits	2.1 Sound health 2.2 Color 2.3 Size 2.4 Age 2.5 Shape 2.6 Disease resistance
4. Body condition score (BCS)	4.1 Follow image mentioned in the last page of CS
5. Roughage and concentrate	5.1 Roughage e. Green roughage ▪ Napier ▪ Para ▪ German

	▪ Jamboo ▪ Maize f. Dry roughage ▪ Staw ▪ Hay ▪ Husk 5.2 Concentrate a. Rice polish b. Rice bran c. Wheat bran d. Broken maize e. Masterd oil cake f. Soyabin meal g. Til oil cake h. Fish meal
6. Balance Ration	6.1 Calf stage ▪ Maize bran 23% ▪ Wheat bran 30% ▪ Any cake 15% ▪ Dlaer vushi 10% ▪ Rice polish 20% ▪ Salt 1% ▪ DCP 1% 6.2 Heifer stage ▪ Maize bran 20% ▪ Wheat bran 30% ▪ Any cake 18% ▪ Dlaer vushi 10% ▪ Rice polish 20% ▪ Salt 1% ▪ DCP 1% 6.3 Milking stage (Depends on milk production and body weight) ▪ Maize bran 30% ▪ Wheat bran 23% ▪ Any cake 20% ▪ Dlaer vushi 10% ▪ Rice polish 15% ▪ Salt 1% ▪ DCP 1% 6.4 Dry stage ▪ Maize bran 20% ▪ Wheat bran 33%

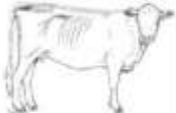
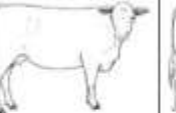
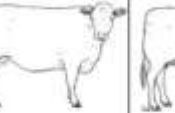
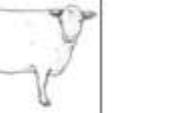
	▪ Any cake 15% ▪ Dlaer vushi 10% ▪ Rice polish 20% ▪ Salt 1% ▪ DCP 1% 6.5 Beef fattening ▪ Wheat bran 50% ▪ Rice polish 20% ▪ Any cake 10% ▪ Dlaer vushi 18% ▪ Salt 1% ▪ DCP 1%
7. Special technologies	7.1 Urea Mollases Straw (UMS) 7.2 Urea Mollases Block (UMB) 7.3 Urea Treated Straw (UTS) 7.4 Silage 7.5 Total Mixed Ration (TMR) 7.6 Farmented corn
8. Reproductive technology	7.1 Artificial Insemination (AI) 7.2 Natural breeding.
9. Deworming	8.5 Feeding oral tablet 8.6 Feeding liquids medicine 8.7 applying topical treatments. 8.8 Injectable anthelmintics
10. Vaccination	10.1 Anthrax vaccine 10.2 Foot and mouth disease vaccine 10.3 Black quarter vaccine 10.4 Haemorrhagic septicemia vaccine 10.5 Lumpy skin disease vaccine 10.6 Rabies vaccine (post exposure)
11. Disease	11.1 Anthrax 11.2 Foot and mouth disease 11.3 Black quarter 11.4 Haemorrhagic septicemia 11.5 Lumpy skin disease 11.6 Mastitis 11.7 Retained placenta 11.8 Uterine prolapse 11.9 Milk fever 11.10 Ketosis 11.11 Pyometra 11.12 Metritis 11.13 Brocellosis 11.14 Trichomonosis

	11.15 Rabies 11.16 Foot rot 11.17 Tympany 11.18 Parasitic infestation 11.19 Poisonous cases 11.20 Upward patellar fixation
12. Milking Procedure	12.1 udder preparation 12.2 Hand milking 12.3 Machine milking 12.4 post-milking teat disinfection.
13. Marketing indices	13.1 Desirable marketable size of cattle attained 13.2 Physical appearance 13.3 Age 13.4 Weight 13.5 Skin thickness
14. Marketing chanel	14.1 direct sales ▪ purchase from farm ▪ Sales in local market 14.2 Online marketing 14.3 Middle men 14.4 Dairy byproduct
15. Dairy by-product	15.1 Ghee 15.2 Cheese 15.3 Butter 15.4 Yougart 15.5 Dahi 15.6 Sweets 15.7 Pasteurized milk 15.8 Ice-cream 15.9 Chocolet 15.10 Labang 15.11 Matha
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3. Underpinning skills	3.1 Handling tools and equipment 3.2 Communication skills 3.3 Problem solving skills 3.4 Computation skills 3.5 identifying health conditions of cattle 3.6 Applying the process of feeding cattle 3.7 Applying First Aid for primary healthcare of cattle 3.8 Maintaining quality of feed 3.9 Maintaining infrastructure and facilities 3.10 Checking growth rate of cattle 3.11 Checking milk production rate 3.12 Determining Space required for dairy cattle 3.13 Identifying Shape and size of cow shed 3.14 Identifying Pasture resources 3.15 Identifying Roughage and concentrate 3.16 Preparing Balanced ration 3.17 Applying Deworming process 3.18 Different disease of dairy cattle 3.19 Identifying Severe affected dairy cattle 3.20 Performing record keeping 3.21 Analyzing data for improvement

	3.22 Identifying Marketing channel
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Chart of Body condition score (BCS)

Mature cow body condition scores for Angus						
	BCS 0	BCS 1	BCS 2	BCS 3	BCS 4	BCS 5
						
Brief Description:	- Weak, with no body reserves. At risk of death from cold, wet weather or other stressors - Recovery for transport dependent on high quality care but will be slow	- Healthy but with significant muscle wastage - Able to recover from transport if adequately fed	Lean but strong and healthy with evident muscle wastage	- Moderate condition with rounding of skeletal features - Ideal condition for cows at weaning	- Healthy with significant fat reserves - Ideal condition for cows at joining	- Excessively fat animals with no skeletal features visible - A block shaped appearance and mobility only to walk.
Pin bones	Inside of pin bones deeply sunken to the bone	Inside of pin bones sunken	Inside of pin bones slightly sunken	Filled but not mounded	Filled and mounded	Not identifiable due to fat coverage
Hip and rump	Hook bone prominent with rump deeply concave	Hook bone prominent with rump concave	Hook bone prominent with rump slightly concave	Hook bone prominent	Smoothly rounded	Not identifiable due to fat coverage
Backbone	Spines of backbone individually identifiable	Spines of backbone identifiable	Easily seen	Not prominent	Not prominent with rounded appearance	Not identifiable due to fat coverage
Short ribs	Very prominent and easy to see individually	Prominent and very sharp to the touch	Visible but not individually and fairly sharp to the touch	Visible and are easily felt with firm pressure as 'rounded' rather than sharp	Visible and are easily felt with firm pressure	Cannot be seen or felt
Dewlap	Dewlap is a skin fold with sternum identifiable	Dewlap has no fat	Dewlap has some fat	A little fill in the brisket/sternum	Full in the brisket/sternum	Rounded fat deposit at the brisket/sternum

Source - Blackwood et al 2013, 'A national guide to describing and managing beef cattle in low body condition'

References

- a. Competency standard on Cattle Rearing of Philippine with web address <https://www.tesda.gov.ph>
- b. Syllabus on Agriculture and Cattle Rearing of Directorate of Youth Development.

Development of Competency Standard

The Competency Standards for National Skills Certificate Level- 3 in Cattle Rearing is Developed by NSDA on 14,15,18,19 February, 2024.

List of the members of the development workshop

Sl No	Name and Designation	Institution Address	Mobile and E-mail	Signature
1.	Jubail Kamrul Badhon BDFA (Legal Secretary)	Bangladesh Dairy Farmers Association, Dhaka.	Mobile: 01745345644 Email: jk.badhon@gmail.com	
2.	Rashedul Kabir BDFA (Treasurer)	Bangladesh Dairy Farmers Association, Dhaka	Mobile: 01743014566 Email: rskabir2167@gmail.com	
3.	Dr. A.K.M Saleh Rahman Veterinary Officer	Dhaka South City Corporation, Dhaka.	Mobile: 01303338059 Email: vetsalehrahman@gmail.com	
4.	Dr. Shadekuzzaman Rakib Veterinary Officer	Dhaka South City Corporation, Dhaka.	Mobile: 01920956790 Email: shadekuzzamanvet@gmail.com	
5.	Md. Jakaria Jamil Assistant Director (Training)	Department of Youth Development, Office of the Director General, Dhaka.	Mobile: 01723270538 Email: adtraining1@dyd.gov.bd	
6.	Mr. Mohammad Asaduzzaman Senior Instructor (Livestock)	Youth Training Centre, Kishoreganj.	Mobile: 01712863309 Email: mohammedasadzaman2016@gmail.com	
7.	Dr. Md. Shofinur Rahman Senior Instructor (Livestock)	Youth Training Centre, Dinajpur.	Mobile: 01711004850 Email: shafinvet76@gmail.com	
8.	Md. Nazrul Islam Competency Standard Expert	National Skills Development Authority (NSDA)	Mobile: +880 1711 273708 Email: ndewli@yahoo.com	

Validation of Competency Standard

The Competency Standards for National Skills Certificate Level-3 in Cattle Rearing is Validated by NSDA on 20 March, 2024.

List of members in the validation workshop:

Sl. No.	Name and Address	Position in the committee	Signature
1.	Mr. Nurul Qayyum Khan Chairman, Agriculture Sector ISC Cell:01711691262 Email: chairman@qnscont.com	Chairman	
2.	Mr. Mohammad Imran Hossain President, Bangladesh Dairy Farmers Association, Dhaka. Mobile: 01819263949, Email: sadeeqagro1207@gmail.com	Member	
3.	Mr. Mohammad Shah Imran General Secretary, Bangladesh Dairy Farmers Association, Dhaka Mobile: 01819263949 Email: sadeeqagro1207@gmail.com	Member	
4.	Dr. Md. Abdul Mottaleb Veterinary Officer, Central Cattle Breeding and Dairy Farm, Savar, Dhaka. Mobile:01712094611 Email: drmutaleb@gmail.com	Member	
5.	Dr. A.K.M Saleh Rahman Veterinary Officer Dhaka South city Corporation, Dhaka. Mobile:01303338059 Email: vetsalehrahman@gmail.com	Member	
6.	Dr. Azra Begum Senior Trainer (DVM), Youth Training Centre, Narayanganj. Mobile:01711399969 Email: azrabegum2020@g	Member	
7.	Mr. Habibur Rahman Senior Trainer (Animal Husbandry), Youth Training Centre, Gazipur. Mobile:01558320360 Email: ytchabib@gmail.com	Member	
8.	Mr. Imam Hosen Trainer (Animal Husbandry), Youth Training Centre, Narayanganj. Mobile:01717054680 Email: imamh7810@gmail.com	Member	
9.	Mr. Md. Nazrul Islam Competency Standard Expert National Skills Development Authority (NSDA) Mobile: 0 1711 273708	Member	

	Email: ndewli@yahoo.com		
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