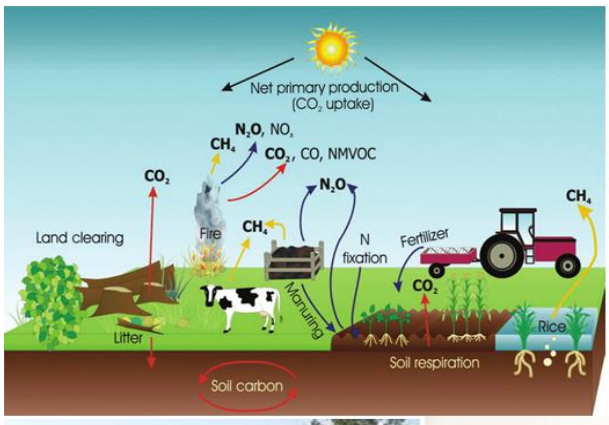




Model Curriculum

QP Name: Livestock Green Management Promoter

QP Code: AGR/Q4805

Version: 1.0

NSQF Level: 5

Model Curriculum Version: 1.0

Agriculture Skill Council of India || Unit No. 101, First Floor, Greenwoods Plaza,

Block 'B', Greenwoods City, Sector 45, Gurugram -122009, Haryana.

Table of Contents

Training Parameters

Sector	Agriculture
Sub-Sector	Animal Husbandry
Occupation	Livestock Health Management (Agriculture information management)
Country	India
NSQF Level	5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6116
Minimum Educational Qualification and Experience	UG Diploma or equivalent* OR Completed 2nd year of 2-year diploma* after 12th OR UG certificate* with 1.5-year experience in Agriculture and allied sectors OR 12th Grade Pass with 3-years experience in Agriculture and allied sectors OR Previous relevant Qualification of NSQF Level 4.5 with 1.5-year experience in Agriculture and allied sectors OR Previous relevant Qualification of NSQF Level 4 with 3-years experience in Agriculture and allied sectors ** Veterinary Sciences/Animal Husbandry/Diary Technology*
Pre-Requisite License or Training	NA
Minimum Job Entry Age	NA
Last Reviewed On	30/04/2024
Next Review Date	30/04/2027
NSQC Approval Date	30/04/2024
QP Version	1.0
Model Curriculum Creation Date	30/04/2024
Model Curriculum Valid Up to Date	30/04/2027
Model Curriculum Version	1.0
Minimum Duration of the Course	480 Hours
Maximum Duration of the Course	480 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Discuss the job role of a Livestock farm (Green Management) Promoter
- Describe the role and responsibilities of a Livestock Farm Facilitator-Green Management
- Describe the scope of livestock sector and its role in economy
- Explain the principle of sustainable livestock production (green management) and issues and drivers relevant to sustainable (economic, social and environmental) livestock production
- Describe approaches and practices of sustainable livestock production (green management)
- State the measures and indicators relevant to sustainable livestock production
- Demonstrate techniques to facilitate communication and collaboration
- Understand legal and regulatory requirements and funding sources/schemes available
- Plan for project, resources and schedule
- Prepare strategy for environmental and work health and safety risk management
- Give an overview of the Livestock vis-à-vis sustainability aspects
- Plan for sustainable Livestock production in relation to sustainability in respect of economic, social and environmental aspects
- Describe the various practices involved in sustainable good animal husbandry practices at farm level in respect of animal health, nutrition; breeding; housing and other management practices; animal welfare; sustainability practices relevant to environmental, social and economic aspects.
- Identify the gaps in sustainable good animal husbandry practices at farm level
- Plan for the sustainable production practices from the gaps identified at farm level
- Understand various legislations and regulations applicable for livestock production – soil, water, animal health and welfare, bio-security and chemical use and OHS in the country and their importance in sustainable production
- Know about planning of livestock production practices against rules and regulations
- Describe about organic animal husbandry practices with respect to animal health and other management practices, nutrition and grazing management and activities for soil health management
- Explain about permitted and prohibited inputs, and national standards for organic and bio-dynamic livestock production
- Plan for organic livestock production
- Engage with farmers and customers, identify their needs in respects of livestock products as per the legislative requirements and standards
- Determine legislative requirements in sales environments, including fair trading, trade practices and legislation and public liability in respect of livestock products including industry equipment, animal handling systems, stock feeds, animal health products
- Describe workplace procedures for providing advice on livestock products and related products
- Describe animal welfare legislation and relevant components of state and workplace health and safety, sustainability and biosecurity procedures for the safe handling of livestock products
- Map carbon sources and sinks along the value chain in livestock production
- Determine nature and source for carbon emissions and quantification of carbon at livestock farm
- Determine and plan strategies for reducing carbon footprint and reporting of carbon footprint of a livestock farm

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N4824: Develop sustainable agricultural practices that are readily implementable and utilise renewable energy and recycling systems NOS Version- 1.0 NSQF Level- 5	**50:00**	**40:00**	**0:00**	**0:00**	**90:00**
Module 1: Introduction to the role of a Livestock Farm (Green Management) Promoter	05:00	00:00	0:00	0:00	05:00
Module 2: Sustainable Practices for livestock management including the use of renewable energy and recycling systems	45:00	40:00	0:00	0:00	85:00
AGR/N4825: Plan for sustainable livestock production NOS Version- 1.0 NSQF Level- 5	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module 3: Planning for sustainable livestock production	10:00	20:00	0:00	0:00	30:00
AGR/N4826: Facilitate sustainable livestock production NOS Version- 1.0 NSQF Level- 5	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 4: Facilitating sustainable livestock production	20:00	40:00	0:00	0:00	60:00
AGR/N4827: Advise farmers/customers on livestock products NOS Version- 1.0 NSQF Level- 5	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module 5: Advising farmers/customers on livestock and related products	10:00	20:00	0:00	0:00	30:00
AGR/N4828: Assess and document carbon footprint NOS Version-1.0	**30:00**	**30:00**	**0:00**	**0:00**	**60:00**

NSQF Level-5					
Module 6: Assessing and documenting carbon footprint	30:00	30:00	0:00	0:00	60:00
DGT/VSQ/N0103: Employability Skills (90 hours) NOS Version-1.0 NSQF Level-5	**90:00**	**00:00**	**0:00**	**0:00**	**90:00**
Module 7: Employability Skills	90:00	0:00	0:00	0:00	90:00
Module 8: OJT (Mandatory)	0:00	0:00	120:00	0:00	120:00
Total Duration	**210:00**	**150:00**	**120:00**	**0:00**	**480:00**

Module Details

Module 1: Introduction to the role of a Livestock Green Management Promoter

Bridge Module, Mapped to AGR/N4824 v1.0

Terminal Outcomes:

- Discuss the job role of a Livestock Farm (Green Management) Promoter

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the size and scope of the agriculture and its sub-sectors especially livestock production. • Discuss the role and responsibilities of a Livestock Farm (Green Management) Promoter • Identify various employment opportunities for a Livestock Farm (Green Management) Promoter	
Classroom Aids	
Training Kit – Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Sustainable Practices for livestock management including the use of renewable energy and recycling systems

Mapped to AGR/N4824 v1.0

Terminal Outcomes:

- Explain the basic principles of sustainability, sustainability issues, drivers, approaches of sustainable livestock farming (green management)
- Explain the sustainability measures and indicators and determine the sustainability assessment of livestock production
- Describe climate change and its impacts, livestock contribution to climate change, adaptation and mitigation practices
- Plan for sustainable livestock production practices, renewable energy and recycling systems, resourcing as per the regulatory requirements
- Determine work health and safety risk management strategies relevant to sustainable production

Duration: 45:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the principles, approaches, framework and issues and drivers of sustainable livestock production relevant to economic, social and environmental sustainability aspects • Know interactions between sustainability issues and processes • Explain environmental impact on livestock and impact of livestock on environment, adoption and mitigation measures for environmental sustainability • Discuss renewable energy and recycling systems and practices in livestock production/farms, incentives for livestock farms for renewable energy • Analyse legal and regulatory requirements associated with renewable energy and recycling and Plan, resource and schedule these. • Describe the environmental and work health and safety risk management strategies • Explain about economic, environmental and social sustainability issues within the industry • Discuss current and emerging approaches to improving sustainability within the industry • List and discuss sustainability issues relevant to the work area and/or its value chain • Explain current and emerging industry practices relevant to sustainability issues, as listed above • Explain methods of estimating positive and	• Assess the sustainability which includes defining scope, dimensions and indicators, followed by planning and conducting/ implementation of sustainability assessment • Examine processes and/or procedures related to the work area or value chain to identify sustainability issues • Estimate positive and negative business impacts of readily implementable changes to address short-listed sustainability issues • Rank short-listed sustainability issues by estimated sustainability and business benefits and costs • Develop implementation and monitoring plan to deliver desired outcomes • Identify areas of enterprise where renewable energy, recycling products or improving work practices could be utilized to reduce greenhouse gas emissions • Identify potential income generated by on selling energy excesses or recycled products • Measure improvement outcomes from the introduction of renewable energy sources and recycling products in relation to achieving greater sustainability • Conduct risk assessment for work health and safety hazards associated with renewable energy and recycling initiatives

negative sustainability impacts • Describe methods of estimating positive and negative business impacts • Explain about interactions between sustainability issues and operational processes • Discuss about organizational drivers of change for sustainability • Explain measures and indicators relevant to sustainability issues in the work area and/or its value chain • Discuss about brainstorming techniques, project planning, resourcing and scheduling. • Explain the techniques to facilitate communication and collaboration • Enlist the effects of greenhouse gas emissions on the environment • Describe key principles of sustainability associated with using of renewable energy and recycling systems • Enlist specified standards of quality legislation, regulatory and licensing requirements associated with renewable energy and recycling • List out the subsidies available for adopting renewable energy systems • Explain environmental and work health and safety risk management strategies	• Develop strategies to reduce greenhouse gas emissions and use sustainable practices, renewable energy resources, recycled products and improved work practices • Estimate plant, material, labour and other associated costs in consultation with appropriate person or organization • Develop a budget for estimated plant, material, labour and other associated costs • Develop work plan for the introduction of sustainable practices, renewable energy resources and recycled products • Develop work health and safety risk control measures and establish procedures • Demonstrate implementation and monitoring the plan for renewable energy and recycling products to ensure on time supply of plant and materials • Demonstrate monitoring the progress of strategies to reduce greenhouse gas emissions and recycling against schedule, quality requirements and budget • Demonstrate monitoring work health and safety risk control measures and procedures and implement changes • Evaluate the improvement outcomes and document appropriate corrective actions • Oversee and assist with implementation of improvements • Facilitate processes with stakeholders and, if needed, specialists to resolve problems • Monitor implementation metrics and take action to adjust implementation, as required, in response to issues • Evaluate metrics and feedback from stakeholders to determine effectiveness of changes • Determine and oversee amendments needed to achieve desired outcomes • Oversee updates to systems, procedures and related documentation to support sustaining of successful improvements • Oversee development and dissemination of communications to support sustaining of successful improvements • Estimate benefits derived economically and socially out of sustainable livestock production

	• Plan for renewable energy and recycling systems at livestock farms and associated incentives
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Livestock farms to organise field visit	

Module 3: Planning for sustainable livestock production

Mapped to AGR/N4825 v1.0

Terminal Outcomes:

- Describe sustainable livestock practices in terms of animal health, nutrition, breeding, housing and other management practices and identify the gaps
- Determine/plan for sustainable livestock production keeping in view of the gaps
- Assess social and economic costs and benefits

Duration: 10:00	**Duration: 20:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe good livestock production practices which includes production aspects, site- erect or install production facilities including with identified waste products. • Explain about flock/herd health and control measures • Explain breeding aspects • Determine the feed inputs and fodder production and conservation management • Describe the process of maintenance of records • Measure profitability with reviewing and revising production plans as per sustainable practices • Discuss about regulations that affect farm land ownership/possession and livestock production • Describe the procedure for obtaining permits from the relevant authorities for the transportation of livestock and equipment • Explain about livestock nutrition requirements • Explain about health and welfare of animals within the production system. • Explain the key considerations in a livestock breeding operation • Discuss livestock husbandry and management practices • Explain land capability and its relevance to planning livestock production in the context of the whole farm • Describe sustainable land use principles and practices applicable in the region • Explain environmental controls and codes of practice applicable to the enterprise • Discuss about budgeting and financing for an enterprise • Explain the significance of cost benefit analysis, • Explain management practices and	• Identify and list out the gaps as per the check list of the good livestock production practices under each head and plan for them ex. Livestock health - vaccination and deworming and monitoring and attending to health issues; Nutrition - improvement of dry roughage, fodder production, grazing management and fodder conservation and so on. • Assess the capability of land resources for grazing and determine stock, pasture and land management strategies for each land capability class • Assess the suitability and sustainability of water resources • Establish livestock production targets for each enterprise for the short and long term according to the farms marketing and business plans • Establish production targets, taking into consideration enterprise short and long term livestock production goals, herd/flock breeding improvements and relevant risk control strategies • Select genetics and breeding programs based on the production targets and the marketing requirements for the enterprise • Select and design production facilities in a way that deals sensitively with identified waste products • Establish and specifically include environmental controls in the production plan • Identify work health and safety hazards, assess risks and incorporate suitable controls into the production plan • Prepare a plan that documents the decisions taken, the assessments made, the

processes to minimise noise, odours and debris from the livestock operations • Explain relevant legislation and regulations relating to soil and water degradation issues, animal health and welfare, biosecurity and chemical use • Identify, monitor and manage work health and safety hazards, animal welfare, biosecurity or environmental impacts relating to livestock production • Monitor and plan for work and OHS codes and legislation and relevant practices • Explain relevant work health and safety legislation and codes of practice	targets established, and any specific issues that relate to work health and safety, animal welfare, biosecurity and environmental risks • Ensure plan includes the type, format, frequency and detail of any reporting required by both manager(s) and operators • Determine feed requirements for each age/sex category of herds and/or flocks • Determine most appropriate feeding plan for each livestock category based on a cost benefit analysis • Research and implement most appropriate health strategies to prevent and control disease in each herd and/or flock on the basis of a cost benefit analysis • Prepare schedules for purchasing and using the products and services used in livestock production • Research and implement most appropriate livestock production, harvesting, handling and transportation methods and animal welfare requirements from a cost benefit analysis • Prepare a livestock production plan that incorporates the calendar of operations for each enterprise production cycle, and the management of any specific animal welfare issues • Ensure plan includes the type, format, frequency and detail of any reporting required by both manager(s) and operators • Identify and access sources of information on innovations relevant to the enterprise and livestock species • Assess information on innovations to determine whether or not such innovations could be used in the present enterprise, or in a potential future enterprise in a sustainable way • Amend prepared production plans to include innovations deemed suitable for use in the enterprise • Consult people who may be involved in implementing the innovation or in planning for it and discuss the change with them • Test innovations on the farm to determine whether or not they are suitable, and

	whether they may be readily adapted to suit the circumstances of the business • Identify any work health and safety hazards, animal welfare, biosecurity or environmental risks that present during the trial phase, assess them and take responsible action • adopt the innovation, based on its costs and benefits and any implementation issues, including work health and safety, animal welfare, biosecurity and environmental considerations • Implement and monitor production plans according to the calendar of operations • Site, erect or install production facilities in a way that deals sensitively with identified waste products • Evaluate livestock growth/maturity or production according to the planned targets and the marketing requirements • Monitor flock/herd health, and control and prevent parasite and disease outbreaks quickly and effectively • Assess feed supplies, monitor pasture or landscape condition and species composition, and vary stocking rates to maintain optimum pasture and livestock health • Identify, monitor and manage work health and safety hazards, animal welfare, biosecurity or environmental impacts relating to livestock production in the business to promote optimum pasture, livestock, and employee health • Analyse physical and financial records and extractions taken from them to assess production performance, and to provide information for business and taxation purposes • Evaluate the production performance of each enterprise to determine whether or not they are sustainable and profitable, and to use in reviewing and revising production plans • Obtain information about the legal requirements and regulations that affect

	farm land ownership/possession and livestock production ● Determine record keeping requirements, and put in place procedures to ensure compliance with the range of applicable regulations including taxation legislation ● Obtain permits from the relevant authorities for the transport and movement of livestock and equipment
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
● Previous note on assessment of sustainability of a livestock farm, solar-pumping systems, biogas and vermicompost unit ● Previous note of listed out issues, gaps and measures in the first unit ● Veterinary hospital, labs for water and soil testing ● Farm manure, pit for storing of manure and farm organic waste, vermicompost pit, earthworms, sieves for dry compost, packaging for vermicomposting, other accessories such as tools for making vermicompost, safety wear for workers (gloves, dress, cap, etc.). ● Green grass and drying yard for hay making ● Silage making drum or bag, grass and bio-culture and material, chaffer, silage drum filling and pressing equipment, sealing material ● Grazing area to mark the plots for rotational grazing ● Ingredients of feed and fodder for reparation of balanced ration	

Module 4: Facilitating sustainable livestock production

Mapped to AGR/N4826 v1.0

Terminal Outcomes:

- Describe organic agriculture and agroecological principles
- Explain about organic livestock production practices
- State the permitted, restricted and prohibited inputs and activities for soil, plant and animal health as specified in the national standards for organic livestock production

Duration: 20:00	**Duration: 40:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss about organic agriculture and agroecological principles • Explain about organic livestock production practices • Explain about Animal health, pests, parasites and diseases and their control • Plan for feed, fodder and pasture management organically • Discuss about Pasture, land and soil condition and organic indicators of fertility • Discuss about grazing management, including pasture identification and assessment, carrying capacity, feed budgeting, planned grazing strategies • List the permitted, restricted and prohibited inputs and activities for soil, plant and animal health as specified in the national standards for organic livestock production • Explain relevant animal welfare code of practice • Discuss work health and safety and animal welfare legislation and codes of practice. • Maintain records of practices for sustainable farm production	• List out organic livestock production practices and plan for those • Communicate and implement animal management strategy to the farmers as per the above. • Analyse the Test report of inputs, soil, water for maintenance of organic status • Demonstrate the purchase and use nutritional inputs in the feed program that meet relevant standards and/or agro-ecological principles where applicable • Determine indicators and benchmarks for sustainable pasture, land and soil use for farm • Plan for conversion of existing farm to organic farm • Confirm the prescribed withdrawal periods after usage of medicines or chemicals • Visit to organic livestock farm and observe practices in comparison to the standards and review • Estimate social and economic benefits aroused out of organic livestock production • Investigate and consider natural behaviours, requirements and welfare of animals when planning for sustainable livestock production • Eliminate risk of weed and chemical contamination of farm according to Organic Standards and agro-ecological principles • Maintain records of soil fertility according to

	workplace procedures and Organic Standards
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Organic farms for Filed visit Organic inputs and their sources, soil and water testing reports of an organic farm	

Module 5: Advising farmers/customers on livestock and related products

Mapped to AGR/N4827 v1.0

Terminal Outcomes:

- Identify farmers as well as customer needs and providing advice on livestock products as per the specifications and standards
- Explain about products vs legislative requirements
- Understand and plan workplace health and safety, sustainability and biosecurity procedures for the safe handling of livestock products

Duration: 10:00	**Duration: 20:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss about livestock product requirements of local or specific customers • Discuss about various livestock and related products and product specifications • Know livestock products and related products from authoritative sources as per the standards • Explain about legislative requirements in sales environments, including fair trading, trade practices and sale of goods legislation and public liability • Explain animal welfare legislation and relevant components of state or territory Acts relating to livestock products • Discuss workplace procedures for providing advice on livestock products and related products • Explain workplace health and safety, sustainability and biosecurity procedures for the safe handling of livestock products	• Engage with farmers/customer and identify their needs and ecological considerations in respect of livestock products (livestock produce, industry equipment, animal handling systems, stock feeds, animal health products) • Conduct a survey in respect of livestock products and farmers' requirement in the local area • Plan for workplace health and safety requirements while handing the livestock products • Use interpersonal skills to engage with farmers/customer and identify their needs • Demonstrate products safely to customer according to workplace procedures, workplace health and safety requirements and legislative requirements • Handle farmer/customer enquiries courteously and promptly according to workplace procedures and legislative requirements • Identify available products suitable to farmers/customer needs and ecological considerations • Research and update knowledge and understanding of livestock products and related products from authoritative sources • Research local workplace and district requirements for livestock and related products

	• Provide advice to customer in a timely and professional manner according to workplace procedures and legislative requirements • Exhibit or demonstrate products safely to customer according to workplace procedures, workplace health and safety requirements and legislative requirements • Address customer concerns and questions and suggest alternative or additional products to meet requirements for recommended products
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
• Farmers with livestock produce and customers to conduct survey • Test reports of livestock related products and list of product specifications / legislative requirements	

Module 6: Assessing and documenting carbon footprint

Mapped to AGR/N4828 v1.0

Terminal Outcomes:

- Determine nature and source for carbon emissions and quantify carbon
- Map carbon sources and sinks along the livestock value chain
- Recommend strategies for reducing carbon footprint in livestock production
- Report carbon footprint

Duration: 30:00	**Duration: 30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Determine the type, nature and source of carbon emissions • Explain the method of estimation of carbon emissions through mapping, emissions and sinks and balancing • Determine about various emissions, application of carbon equivalence conversion factors • Explain the root cause, approaches, materials flow and the planning process for waste reduction/ recycling and manage residual resources • Discuss sustainability-related regulatory and reporting requirements • Explain sustainability-related prevailing standards, codes and certification relevant to the industry	• Select portion of value chain for analysis • Identify process steps along portion of value chain • Identify carbon-related change which occurs at each step • Determine carbon emissions from each step • Determine source of each emission • Identify measurements available for each emission and each source • Quantify each emission • Determine CO2 equivalent tonnes for each emission • Determine total carbon embodied in process, product or service • Short-list high carbon sources • Determine root cause of emissions • Identify relevant carbon sinks • Investigate methods for reducing emissions • Prepare recommendation for improvement • Identify purpose of report and key stakeholders • Compile data, implications and recommendations

	• Write report and communicate with stakeholders • Demonstrate preparation of organic/natural manures as mentioned in previous unit • Demonstrate various manure management practices– storage of manure, vermicompost preparation, bio-gas as mentioned in previous units • Demonstrate various balanced feed, pasture management, fodder conservation as mentioned in previous units
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Livestock farms to visit	

Module 7: Employability Skills (90 hours)

Mapped to NOS DGT/VSQ/N0103 v1.0

Duration: 90:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 3 Hours

After completing this programme, participants will be able to:

1. Discuss the importance of Employability Skills in meeting the job requirements

Constitutional values - Citizenship Duration: 3 Hours

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

Becoming a Professional in the 21st Century Duration: 3 Hours

4. Discuss 21st century skills.
5. Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.

Basic English Skills Duration: 6 Hours

6. Use appropriate basic English sentences/phrases while speaking

Communication Skills Duration: 12 Hours

7. Demonstrate how to communicate in a well -mannered way with others.
8. Demonstrate working with others in a team

Diversity & Inclusion Duration: 3 Hours

9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

Financial and Legal Literacy Duration: 12 Hours

11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

Essential Digital Skills Duration: 8 Hours

14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

Entrepreneurship Duration: 22 Hours

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

Customer Service Duration: 12 Hours

17. Differentiate between types of customers
18. Explain the significance of identifying customer needs and addressing them
19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 6 Hours

20. Create a biodata
21. Use various sources to search and apply for jobs
22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview
23. Discuss how to search and register for apprenticeship opportunities

Module 8: On-the-Job Training (OJT)

Mapped to AGR/Q4805 v1.0

Duration: 120:00

Key Learning Outcomes

1. Examine processes and/or procedures related to the work area or value chain to identify sustainability issues
2. Identify areas of enterprise where renewable energy, recycling products or improving work practices could be utilized to reduce greenhouse gas emissions
3. Identify potential income generated by on selling energy excesses or recycled products
4. Plan for sustainable livestock production practices, renewable energy and recycling systems, resourcing as per the regulatory requirements
5. Identify and list out the gaps as per the check list of the good livestock production practices under each head and plan for them ex. Livestock health - vaccination and deworming and monitoring and attending to health issues; Nutrition - improvement of dry roughage, fodder production, grazing management and fodder conservation and so on.
6. Determine most appropriate feeding plan for each livestock category based on a cost benefit analysis
7. Implement and monitor production plans according to the calendar of operations
8. Demonstrate the purchase and use nutritional inputs in the feed program that meet relevant standards and/or agro-ecological principles where applicable
9. Conduct a survey in respect of livestock products and farmers' requirement in the local area
10. Identify available products suitable to farmers/customer needs and ecological considerations
11. Identify carbon-related change in various steps of the value chain, measure and quantify CO2 equivalent tonnes
12. Determine root cause of emissions, investigate methods for reducing emissions
13. Demonstrate various balanced feed, pasture management, fodder conservation

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
Diploma	Agriculture and Animal Husbandry / Animal Husbandry and Veterinary Science / Animal sciences/ Animal production and management	5	Specialisation in livestock production and management	3		Knowledge in sustainable livestock production and carbon foot print is beneficial
Graduate	Animal Husbandry and Veterinary Science /Agriculture/ Animal sciences/Animal production and management	2	Specialisation in livestock production and management	1		(Animal Husbandry and Veterinary Science / Animal sciences) with minimum 3 years Teaching experience (will be considered industry experience)
M.Sc.	M.V.Sc in livestock production and management	1	Specialisation in livestock production and management	1		(Animal Husbandry and Veterinary Science / Animal sciences) with minimum 3 years Teaching experience (will be considered industry experience)

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Livestock Green Management Promoter", mapped to QP: "AGR/4805, v1.0", Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites – Livestock Farm Facilitator (Green management)						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduation	Animal Husbandry and Veterinary Science /Agriculture/ Animal sciences/Animal production and management	3	Specialisation in livestock production and management	0		Knowledge in sustainable livestock production and emissions and carbon foot print is beneficial
Post-graduation	M.V.Sc in Livestock production and management /Extension education / Dairy/Poultry	2	Specialisation in livestock production and management	0		
PhD	Various specializations of Animal Husbandry and Veterinary sciences			0		

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Livestock Farm Green Management Promoter", mapped to QP: "AGR/4805 v1.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%.

Assessment Strategy

Assessment System Overview

In Agriculture sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. Multiple Choice Questions: To assess basic knowledge (Objective/Subjective)
2. Viva: To assess awareness on processes (Oral and/or written questioning)
3. Practical: To evaluate skills and identify competencies. (Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real-time' internet-based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on the ground through qualified and ToA certified assessors.

An individual must have adequate knowledge and skills to perform a specific task, weightage for different aspects of the assessment is given as follows:

- Multiple Choice Questions: 20%-30%, depending on the specific QP
- Viva: 20%
- Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)
- Assessment will be carried out by certified assessors through empanelled assessment partners. Based on the results of the assessment; ASCI will certify the learners/candidates

Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at the assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of the Internet.

- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback are stored digitally on the cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle- screen/copy-paste disabled, etc.
- Android-based monitoring system
- End to end process from allocation of a batch to final result upload, there is no

manual intervention

- Assessment will normally be fixed for a day after the end date of the training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities
- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions, pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

Assessment			
Assessment Type	**Formative or Summative**	**Strategies**	**Examples**
Theory	Summative	MCQ/Written exam	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks/Demonstration	Practical application /Demonstration /Application tasks
Viva	Summative	Questioning and Probing	Mock interviews on the usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling the job situation

The question paper is pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi-dimensional evaluation of candidates covering language, cognitive skills, behavioural traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by a theoretical understanding of the testing objectives and published research about the item types and constructs that have shown statistical validity towards measuring the construct. Test item types that have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of the testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation-based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against a set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, dos and don'ts, subjective questions to check the understanding of practical tasks.

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework that will maintain the standardization of the marking scheme.

Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidence collected by AAs and ASCI are:

- Geo-tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
    - Signed Attendance sheet

- Assessor feedback sheet
- Candidate feedback sheet
- Assessment checklist for assessor
- Candidate Aadhar/ID card verification
- Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
- Pictures and videos of Assessment, training feedback and infrastructure.

- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of the assessment, regular calls and video calls are done.
- On-boarding and training of the assessor and proctor are done on a timely basis to ensure that the quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

Methods of Validation

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.
- Video Calls: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner
- Aadhar verification of candidates
- Evening Check (Post Assessment): Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.
- TP Calling: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation
- Video and Picture Evidence: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.
- Surprise Visit: Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.
- Geo Tagging: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI have a fully automated result generation process in association with multiple AAs

- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two job role-specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in the storeroom.

Result Review & Recheck Mechanism –

- Time-stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidates shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	The key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on-site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	The terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
AGR	Agriculture
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
PA	Protected Areas
GM	Green management
AI	Artificial Insemination
ET	Embryo transfer technology
CHCs	Custom hiring centres
DAH	Department of Animal Husbandry
LCA	Life cycle assessment
SAFA	Sustainability Assessment of Food and Agriculture systems (SAFA)
FAO	Food and agriculture organisation
EU	European Union
GHG emissions	Green House Gas emissions
SDG	Sustainable development goals
VC	Value chain
SFS	Sustainable food and agriculture systems
IPCC	Intergovernmental panel on climate change
UNEP	United nations environment programme
FPO	Farmers producer organisation
SPV	Solar photo voltaic
PPE	Personal Protective Equipment
MNES	Ministry of Non-conventional Energy Sources
OJT	On-the-job Training
PwD	People with Disability
PPE	Personal Protective Equipment
BIS	Bureau of Indian standards