Syllabus for GOAT FARM OPERATOR

Course Name	GOAT FARM OPERATOR			
Sector	Agriculture			
Course Code	AGR/2024/GOFO/352			
Level	4			
Occupation	Scientific Goat farming, Farm & Disease Management of any Private, Public Goat Farms under the supervision of the Senior Goat Farm Manager or Supervisor.			
Job Description	A Goat Farm Operator is responsible for establishing and maintaining a goat farm, procuring goats, their housing, breeding, feeding and health care, and facilitating the marketing of both the animals and animal products.			
Course Duration	Total Duration 420 Hrs (T-90, P-210, OJT-60 and ES-60)			
Trainees' Entry Qualification	 12th grade pass Completed 2nd year of 3-year diploma (after 10th) Pursuing 2nd year of 3-year regular Diploma (after 10th) 10th grade pass with two years of any combination of NTC/NAC/CITS or equivalent. 8th pass plus 2-year NTC plus 1-Year NAC plus 1-Year CITS 10th grade pass and pursuing continuous schooling (for 2-year program) 11th Grade Pass and pursuing continuous schooling Previous relevant Qualification of NSQF Level 3.0 with minimum education as 8th Grade pass with 3-year relevant experience Previous relevant Qualification of NSQF Level 3.5 with 1.5-year relevant experience 			
Trainers Qualification	Diploma in Veterinary Science/Animal Husbandry or in relevant field (B.V.Sc. & A.H. Preferable)			

Structure of Course:

Module No.	Module name	Outcome	Theory (Hrs)	Practical (Hrs)	Total (Hrs) [Multiple of 30]
1	Introduction to Goat Farming	Identify different breeds of Goat for Goat Farming	10	20	30
2	Goat Accommodation	Structure goat housing focusing on waste management	10	20	30
3	Providing Feed and Water to Goats	Prepare for fodder cultivation & feeding for goats maintaining constituents of livestock feed component	10	20	30
4	Breeding Management for Goats	Take care of Natural and artificial Breeding of Goats	20	40	60
5	Health and Disease Management of Goats	Manage overall Goat health and Goat diseases	20	40	60

Module No.	Module name	Outcome	Theory (Hrs)	Practical (Hrs)	Total (Hrs) [Multiple of 30]
6	Production and Marketing linkage in Goat farm	Manage Goat farm with linkages to Cooperatives and Producer Organization	10	20	30
7	Goat Farming - Entrepreneurship, Project Proposal and Loan Schemes	Follow necessary steps prior to start an entrepreneurship in goat farming	10	20	30
8	Farm visit, Group work/Case study	Conduct farm visits and engage in group work/case studies for domestic goat farming	00	30	30
9	ОЈТ	1. Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).		60	60
10	Employability Skill	As per guided curriculum	60		60
		TOTAL:	150	270	420

SYLLABUS:

Module No. 1: Introduction to Goat Farming

Outcome: Identify different breeds of Goat for Goat Farming

Objective: 1. Goat Farming in India
2. Important breeds of goat

Theory Content:

- Importance of goat farming
- Brief history about goat farming in West Bengal as well as in India.
- Employment potential in goat farming
- Concept of breed (different Meat, Milch and Dual breeds of Goat)
- Indigenous goat breeds of economic importance
- Exotic breeds of goats experienced in India
- Characteristics and productive features of various breeds of goats of regional and national importance

Practical Content:

- Study of different body parts of goats male and female
- Identification of important breeds of goats.
- Study of importance characteristics of indigenous and exotic breeds of goats of economic importance
- Selection of goat breed

Module No. 2: Goat Accommodation

Outcome: Structure goat housing focusing on waste management

Objective: 1. Basics of goat housing,

2. Housing layout of goat farm

Theory Content:

- Key aspects of livestock housing
- Types of livestock housing
- Different goat housing systems, such as Intensive, Semi-Intensive and Extensive or backyard system of goat housing
- Essential Tools/Equipment for goat housing and management
- Different methods of waste handling and waste disposal in goat farming
- The routine cleaning of goat shed
- Various structures of goat farm Doe shed, Buck shed, Kid shed, Kidding pen, Isolation yard, Quarantine arrangement, Stores for concentrate and dry fodder, office room, Manure disposal arrangement, medication room.
- Layout plan for a large goat farm
- Schedule of daily farm operations

Practical Content:

- Developing models on Intensive, Semi-Intensive and Extensive Goat housing
- Different methods of waste handling/ management
- Plan and follow the routine cleaning of animal shed
- Proper handling to minimize stress and follow the safety procedures
- Preparation of different types of structures in goat farm
- Acquaintance of daily farm operations in a goat farm

Module No. 3: Providing Feed and Water to Goats

Outcome: Prepare for fodder cultivation & feeding for goats maintaining constituents of livestock feed component

Objective: 1. Livestock feed, their characteristics and composition

- 2. Preparation of goat feed
- 3. Feeding of goats

Theory Content:

- Types and characteristics of livestock feedstuff
- Feed composition and its quality
- Component of six constituents of livestock feed component i.e. protein, fat, carbohydrate, mineral, vitamin & water & its role in Goat farming
- Concept of various concentrate feed components for goats
- Various dry roughage, hay, green fodder and tree leaves for goats
- Cost effective ration formulation newborn, grower, buck and doe.
- Requirement of different types of feeds in different physiological conditions (kid/Buck/ Doe-milking/dry/pregnant)
- Systems of feeding goats

Practical Content:

- Green fodder cultivation, Tree leaves, hydroponic green fodder production for best use of fodder cultivation & feeding for goats
- Hay preparation along with Enrichment of straw for goats
- Ingredients used for preparation of concentrate mixture for goats
- Formulation of cost effective concentrate mixture at home for goats
- Concept of balanced ration for goat feeding for optimum production

Module No. 4: Breeding Management for Goats

Outcome: Take care of Natural and artificial Breeding of Goats

Objective:

- 1. Reproduction characteristics of goats
- 2. Natural service and AI in goats
- 3. Breeding management of goats

Theory Content:

- Reproduction characteristics of goat
- Concept of estrus cycle, silent heat, irregular heat, absence of heat, etc. Scientific Breeding and infertility management in Goat
- Age at first breeding for male and female goats
- Natural and artificial Breeding & its merits and demerits in goat farming.
- Concept of AI & factors related to success of AI in goats
- Synchronization of heat in Commercial Goat Husbandry
- Nutrition and diseases affecting fertility of Goat animals.
- Reproductive Disease such as Infertility, Retention of placenta and management
- Tips for successful breeding in goats

Practical Content:

- Procedure of Standard Breeding Practices in Goat farming
- Demonstration on Al, advantage & factors related to success of Al
- Scientific Management procedure of infertility & other reproductive diseases
- Maintenance of breeding register in Goat farming

Module No. 5: Health and Disease Management of Goats Outcome: Manage overall Goat health and Goat diseases

Objective:

- 1. Maintaining the well-being of goats
- 2. Cleaning and sanitation of goat farm
- 3. Preventive measures against endo and ectoparasitic infestations
- 4. Vaccination against dreadful diseases of goats
- 5. First aid for common ailments of goats

Theory Content:

- Signs of ill health of goats
- Different systemic diseases of goats and their management
- Various infectious viral, bacterial & fungal diseases and their control measures in Goat
- Endo-parasites, Ecto parasite and Gid management in goats
- Preventive herd health management and Bio-security practice in goat farm
- Indigenous technical knowledge (ITK) in goat health management
- Cleaning and sanitation of goat farm
- Vaccination schedule against dreadful goat diseases
- First aid in common goat diseases –mastitis, bloat, diarrhea, poisoning, sunstroke, burn, wound,
- First aid kit

Practical Content:

- Standard deworming practice with schedule in goat
- Standard vaccination practice with schedule in goat
- Maintenance of health registers (temperature, muzzle condition, rumination, ecto-parasite, urination, defecation)
- Practice of cleaning and sanitation in goat farm
- Indigenous technical knowledge (ITK) in goat health management
- Bio-security practice in goat farm
- Maintenance of first aid kit
- Measures to be taken during first aid treatment

Module No. 6: Production and Marketing linkage in Goat farm

Outcome: Manage Goat farm with linkages to Cooperatives and Producer Organization

Objective: 1. Common management practices in goat farm

2. Marketing linkage in goat farming

Theory Content:

- Distinction between Meat & Milch breeds of Goats and their trade implications.
- Understanding the principles of producing clean and hygienic meat (Chevon) and milk.
- Explore the concept of organic Goat meat and milk, along with its associated advantages.
- Recognize the risks and drawbacks of adulteration in meat and milk.
- Explore various meat and milk products derived from Goat Husbandry.

Practical Content:

- Conduct a market survey to identify local demand and availability.
- Assess the benefits of small animal husbandry, specifically in the context of Goat Husbandry cooperatives and Farmers Producer Organizations (FPOs).
- Implementation of a daily production register for effective record-keeping in Goat Farming.

Module No. 7: Entrepreneurship, Project Proposal and Various Loan Schemes for Goat Farming

Outcome: Follow necessary steps prior to start an entrepreneurship in goat farming

Objective:

- 1. Fundamentals of entrepreneurship in goat farming
- 2. Marketing inputs and outputs in goat farming
- 3. Preparation of project proposals for establishing goat farm

Theory Content:

- Entrepreneurs and their characterises
- Agri-business incubation
- Discussion on Investment (capital and working capital), Income, Repayment of bank loans with interest, Understanding the concepts of gross profit and net profit in Goat Project
- Overview of Insurance and the Concept of depreciation
- Guidelines for maintaining a stock register and keeping a cash book in a Goat farm
- Understanding the concepts of term loan and cash credit loan, KCC-AH, SHG/FPO bank linkage,
 General procedure for availing term loans in Goat Husbandry
- Exploration of Mudra-Yojna and similar schemes offered by Government and Non-Government entities in Goat Farming

Practical Content:

- Preparation of Model schemes on Meat & Milch breed of Goat farming
- Calculation of income , expenditure, Gross Profit, BCR in Got Scheme
- Preparation of stock register, Journal and cash-book for record keeping in Goat farm
- Starting a goat farm business

Module No. 8: Farm visit, Group work/case study

Outcome: Conduct farm visits and engage in group work/case studies for domestic goat farming

Practical Content:

- Visit of Commercial Goat farm (May be Govt./ KVK/University/ private/ NGO managed/ any other farms suitable for demonstration – as decided by the DD, ARD&PO concerned)
- Explore animal breeds, animal restraint techniques, dairy shed operations and application of medicine (different routes) in goat animals.
- Observe animal behavior, including temperature, rumination, ecto-parasite presence, urination, defecation, and onset of heat.
- Demonstrate the cleaning techniques of animals.
- Demonstrations on fodder plot management, azolla pit utilization, hydroponic units, straw enrichment, home concentrate preparation, hay, and silage production.
- Familiarize with Artificial Insemination (AI) techniques and engage in discussions with successful farmers, SHGs, FPOs, etc.
- Allocate time for healthcare management, nutrition, breeding, record-keeping, institutional linkages (BLDO office, AHC, Bank, KVK, etc.), marketing, and miscellaneous activities.
- Trainees are required to brain-storm on the topic for 1 hour, and then make presentation. All members have to participate.
- Based on their presentations, their learning gaps may be identified and addressed accordingly.
- Each of the trainees is required to come up with their activity timeline (setting goal) as far their enterprise is concerned.

Duration: 1.5 Hours

Duration: 1.5 Hours

Duration: 2.5 Hours

Duration: 2 Hours

- All trainees would be encouraged to come up with their doubts whatsoever. All doubts are required to be cleared in this session.
- Based on their activity timeline (goal), long term follow up plan of the ARD Dept. will be shared with the trainees.

Module No. 9: OJT

Outcome: Work in real job situation with special emphasis on basic safety and hazards in this domain

Practical Content:

Assessor will check report prepared for this component of Practical training of the course and assess whether competency has been developed to work in the real job situation with special emphasis on basic safety and hazards in this domain. (The trainee is expected to undertake work in actual workplace under any supervisor / contractor for **60 Hours.**)

Module No. 10: Employability Skills (60 Hrs)

Key Learning Outcomes

Introduction to Employability Skills

After completing this programme, participants will be able to:

- 1. Discuss the Employability Skills required for jobs in various industries
- 2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship

- Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
- 4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century

- 5. Discuss importance of relevant 21st century skills.
- 6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life
- 7. Describe the benefits of continuous learning.

Basic English Skills Duration: 10 Hours

- 8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
- 9. Read and interpret text written in basic English
- 10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting

11. Create a career development plan with well-defined short- and long-term goals

- 12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
- 13. Explain the importance of active listening for effective communication
- 14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion

- 15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
- 16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy

Duration:5 Hours

Duration: 8 Hours

Duration: 2.5 Hours

- 17. Outline the importance of selecting the right financial institution, product, and service
- 18. Demonstrate how to carry out offline and online financial transactions, safely and securely
- 19. List the common components of salary and compute income, expenditure, taxes, investments etc.
- 20. Discuss the legal rights, laws, and aids

Essential Digital Skills

Duration: 10 Hours

- 21. Describe the role of digital technology in today's life
- 22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
- 23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
- 24. Create sample word documents, excel sheets and presentations using basic features
- 25. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours

- 26. Explain the types of entrepreneurship and enterprises
- 27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
- 28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
- 29. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 5 Hours

- 30. Describe the significance of analyzing different types and needs of customers
- 31. Explain the significance of identifying customer needs and responding to them in a professional manner.
- 32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs

- 33. Create a professional Curriculum Vitae (CV)
- 34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
- 35. Discuss the significance of maintaining hygiene and confidence during an interview
- 36. Perform a mock interview
- 37. List the steps for searching and registering for apprenticeship opportunities

<u>Learning Outcome – Assessment Criteria</u>

Modul e	Outcome	Assessment Criteria				
No.	Identify different breeds of Goat for Goat	tAfter completion of this module trainees will be				
	Farming	able to:				
		Describe importance of goat farming in India				
		 Describe the different Indigenous & exotic 				
1		breeds of goats				
-		 Explain the different body parts of goat 				
		 Identify important breeds of goats of regional 				
		and national importance				
		Select the suitable goat breed				
	Prepare for fodder cultivation & feeding for	After completion of this module trainees will be				
	goats maintaining constituents of livestock	able to:				
2	feed component	 Describe different Types of livestock housing Describe different goat housing systems Use essential equipment for goat housing and management Explain different methods of waste handling and waste disposal in goat farming Do routine cleaning of goat shed Construct various structures of goat farm – Doe shed, Buck shed, Kid shed, Kidding pen, Isolation yard, Quarantine arrangement, Stores for concentrate and dry fodder, office room, Manure disposal arrangement, medication room. Draw layout plan for a large goat farm Follow schedule of daily farm operations 				
3	goats maintaining constituents of livestock feed component	After completion of this module trainees will be able to: Explain Feed Composition, quality & nutrient needs for Goats Identify and procure of inputs required for the feed preparation Arrange various feed ingredients and supplements essential for growth & nutrition Follow the Feeding Chart and store feed appropriately				

Modul e	Outcome	Assessment Criteria			
No.					
		 Prepare feed mixing with right componen or procure quality compound feed from suppliers. 			
		 Explain various waste minimizations in Goat Husbandry. 			
	Manage overall Goat health and Goat diseases	After completion of this module trainees will be able to:			
4		 Understand various reproduction characteristics of goats Understand estrus cycle, silent heat, irregular heat, absence of heat, etc. Scientific Breeding and infertility management in Goat Do breeding of goats at right time Describe natural and artificial breeding & its merits and demerits in goat farming. Known factors related to success of AI in goats Do synchronization of heat in Commercial Goat Husbandry Manage nutritional diseases like fertility of goat Manage reproductive diseases such as Infertility, Retention of placenta and management 			
5	Manage overall Goat health and Goat diseases	After completion of this module trainees will be able to: Describe signs of ill health of goats Know different systemic diseases of goats and their management Understand various infectious viral, bacterial and fungal diseases and their control measures in Goat Understand endo-parasites, Ecto parasite and Gid management in goats Take up Preventive herd health management and Bio-security practice in goat farm Explain Indigenous technical knowledge (ITK) in goat health management Do cleaning and sanitation of goat farm Do vaccination schedule against dreadful goat diseases Understand First aid in common goat			

Modul e	Outcome	Assessment Criteria		
No.		diseases –mastitis, bloat, diarrhea, poisoning, sunstroke, burn, wound, • Maintain First aid kit		
6	Follow necessary steps prior to start an entrepreneurship in goat farming	After completion of this module trainees will be able to: Describe distinction between Meat & Milch breeds of Goats and their trade implications. Understand the principles of producing clean and hygienic meat (Chevon) and milk. Explore the concept of organic Goat meat and milk, along with its associated advantages. Recognize the risks and drawbacks of adulteration in meat and milk. Explore various meat and milk products		
	Follow necessary steps prior to start an entrepreneurship in goat farming	derived from Goat Husbandry After completion of this module trainees will be able to: Explain the concepts of investment, income,		
7		 and repayment of bank loans with interest in the context of Goat Project. Apply insurance concepts in Goat Farming. Apply the procedures for availing term loans, KCC-AH, and SHG/FPO bank linkage in Goat farming. Explain the Mudra-Yojna and similar schemes in Goat Farming. Prepare a stock register, journal, and cash book for record-keeping in a Goat farm. Conduct a market survey to update the information Demonstrate the method of marketing 		
8	Conduct farm visits and engage in group work/case studies for domestic goat farming	- Ideasifaic found to a condition		

Modul e No.	Outcome	Assessment Criteria			
		and administering medicines.			
		 Observes and assesses key animal behaviors, 			
		ensuring effective health management.			
		 Demonstrate fodder plot management, 			
		nutrition practices, and related techniques.			
		 Allocates time effectively for healthcare, 			
		nutrition, breeding, and other farm activities.			
		 Apply Artificial Insemination techniques, 			
		effectively engaging in discussions with			
		farmers and stakeholders.			
		After completion of this module trainees will be			
		able to:			
		Assessor will check report prepared for this			
		component of Practical training of the course and			
		assess whether competency has been developed to			
9	OJT	work in the real job situation with special emphasis			
		on basic safety and hazards in this domain. (The			
		trainee is expected to undertake work in actua			
		workplace under any supervisor / contractor for 60			
		Hours.)			
10	Employability Skill	As per guided curriculum			

LIST OF TOOLS, EQUIPMENTS & MATERIALS NEEDED FOR MODEL COURSE ON GOAT FARMERS (30 TRAINEES PRACTICAL)

LIST OF TOOLS, EQUIPMENTS & MATERIALS:		(For Batch of 30 Trainees)	
S No.	Name of the Tool & Equipment	Specification	Quantity
1.	Laptop & LCD Projector	Standard & available size	01 each
2.	White board, Marker	5'X4'	01-02 each
3.	Record book, Balanced Feed Chart	Standard & available size	02-03 each
4.	Public Address system(PA System)	-Do-	01 No
5.	Personal Protective Equipment Like: Helmet/ head gear, rubber gloves, masks, Safety boots, First Aid Kit.	-Do-	01-02 No's each

N.B.: To conduct Practical for trainees on related trade/discipline, a demonstration farm with minimum (10+1) Nos. Bengal Goats are prerequisite for hands-on skill development in training.

S No.	Name of the Farm Equipment's	Specification	Quantity
1.	Goat shed@ 10-15 Sq ft / animal	Space:15X 11Nos.	160-170 Sq ft
2.	Goat feed Tray & Waterer	Standard & available size	01No /animal
3.	Burdizzo Castrator, Drencher	-Do-	01-02 Nos.
4.	Stethoscope & Thermometer	-Do-	01-02 Nos.
5.	Chemicals, disinfectants, lime etc.	-Do-	02-03 each
6.	Vaccinator, Vaccines & First aid kit.	-Do-	02-03 each
7.	Measuring tape, Wt. Balance, Fan, etc.	-Do-	01-02 each

Marks Distribution

Outcome	Outcome Code	Total Th marks	Total Pr marks	Total OJT marks
Identify different breeds of Goat for Goat Farming	AGR/0268/OC1	10	70	0
Structure goat housing focusing on waste management	AGR/0268/OC2	20	70	0
Prepare for fodder cultivation & feeding for goats maintaining constituents of livestock feed component	AGR/0268/OC3	20	70	0
Take care of Natural and artificial Breeding of Goats	AGR/0268/OC4	30	110	0
Manage overall Goat health and Goat diseases	AGR/0268/OC5	30	110	0
Manage Goat farm with linkages to Cooperatives and Producer Organization	AGR/0268/OC6	20	70	0
Follow necessary steps prior to start an entrepreneurship in goat farming	AGR/0268/OC7	20	70	0
Conduct farm visits and engage in group work/case studies for domestic goat farming	AGR/0268/OC8	0	80	0
Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	AGR/0268/OC9	0	0	150
Employability Skills - 60 Hrs	DGT/VSQ/N0102	50	0	0