CURRICULUM

F O R

Community Livestock Assistant (CLA)



Council for Technical Education and Vocational Training Curriculum Development Division

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Introduction

This curriculum for community livestock assistant is designed to produce lower level technical workforce equipped with knowledge and skills related to livestock production and management occupation. It makes the trainees able to get opportunities for wage and self-employment in the related occupational field.

Aim

To produce lower level livestock workers (community livestock assistants) able to provide livestock services in the community being an entrepreneur/employee/self employed.

Objectives

After the completion of the training program, the trainees will be able:

- To be familiar with livestock production/management
- To be familiar with social mobilization
- To manage livestock (herd/flock)
- To assist for breeding management
- To manage nutrition
- To Keep goat/sheep
- To produce / manage pet animals
- To provide/facilitate for preventive services
- To provide first aid services to the animals
- To be familiar with zoonotic diseases
- To assist to manage drugs
- To manage dairy products
- To manage poultry products
- To manage wool/hide
- To market livestock products
- To communicate with others and
- To be familiar with entrepreneur development

Course Description

This curriculum provides skills & knowledge necessary for community livestock assistant. There will be both demonstration by instructors/trainers and opportunity by trainees to perform skills/tasks specified in this curriculum. Trainees will practice & learn skills using typical tools, materials, equipment & machines necessary for the program.

After successful completion of this program the trainees will be equipped with the knowledge and skills related to social mobilization, livestock management, livestock health services, livestock products management, livestock marketing, communication and entrepreneur development.

Course structure

Community Livestock	Assista	nt (C)			
			hours		Full 1	narks	
Modules/Sub modules	Nature	Th	Pr	Tot	Th	Pr	Tot
1. Introductory agriculture & social	T/P	15	33	48	5	20	25
mobilization							
1. Introduction to livestock		5	5	10			
2. Social mobilization		10	28	38			
2. Livestock management	T/P	27	81	108	20	80	100
1. Herd/flock management		9	27	36			
2. Breeding management		5	15	20			
3. Nutrition management		6	18	24			
4. Goat / sheep keeping		5	15	20			
5. Pet animals production and		2	6	8			
management-5							
3. Livestock health services	T/P	25	59	84	20	80	100
1. Preventive services		8	8	16			
2. First aid treatment		7	21	28			
3. Zoonotic diseases		5	15	20			
4. Drugs management		5	15	20			
4. Livestock products management	T/P	24	72	96	10	40	50
1. Dairy products management		11	33	44			
2. Poultry products management		6	18	24			
3. Wool / hide management		7	21	28			
5. Marketing, communication and	T/P	21	33	54	5	20	25
entrepreneur development							
1. Livestock product marketing		6	6	12			
2. Communication		8	8	16			
3. Entrepreneur development		7	19	26			
Total:		112	278	390	60	240	300

Duration

The total duration of the course will be of 390 hours (three months).

Target group

All interested individuals in the field of livestock with educational prerequisite of class eight pass.

Group size

Maximum of thirty

Medium of instruction

Nepali or English or both

Pattern of attendance

- 80% attendance in theory
- 90% in practical/ performance

Focus of curriculum

This curriculum emphasizes on competency /performance. 80% time is allocated for performance and only 20% for related technical knowledge. So the focus will be on performance of the specified competencies in the curriculum

Entry criteria

- Minimum of eight class pass or equivalent
- Minimum of 14 years of age
- Should pass entrance examination

Follow up suggestions

In order to assess the success of this program and collect feedbacks/ inputs for the revision of the curriculum a schedule of follow up is suggested as follows:

- First follow up: Six months after the completion of the program
- Second follow up: Six months after the completion of the first follow up
- Follow up cycle: In a cycle of one year after the completion of the second follow up for five years

Certificate

The related training institute will provide the certificate of "Community Livestock Assistant". Again, individuals who complete module (s) of the curriculum will receive a <u>certificate of completion</u> of the particular module(s).

Grading

- Distinction: Passed with 80% or above
- First Division: passed with 75% or above
- Second Division: passed with 65% or above

• Third Division: passed with 60% or above

Students evaluation

- Continuous evaluation of the trainees' performance is to be done by the related instructor/ trainer to ensure the proficiency over each competency under each of the sub-module.
- Related technical knowledge learnt by trainees will be evaluated through written or oral tests.
- Trainees must secure minimum marks of 60% in an average of both theory and practical evaluations.
- There will be three internal evaluations and one final evaluation in each module.
- The entrance test will be conducted by the concerned training institute

Trainers qualification

- I. Sc. Ag or equivalent in related field
- Good communicative and instructional skills
- Experience in related field

Trainer-trainees ratio

- 1:10 for practical classes
- For theory, as per the class room situation

Suggestions for instructor

Suggestions for instruction

- 1. Select objectives
 - Write objectives of cognitive domain
 - Write objectives of psychomotor domain
 - Write objectives of affective domain
- 2. Select subject matter
 - Study subject matter in detail
 - Select content related to cognitive domain
 - Select content related to psychomotor domain
 - Select content related to affective domain
- 3. Select instructional methods
 - Teacher centered methods: like lecture, demonstration, questions answer inquiry, induction and deduction methods.
 - Student initiated methods like experimental, field trip/excursion, discovery, exploration, problem solving, and survey methods.
 - Interaction methods like discussion, group/team teaching, microteaching and exhibition.
 - Dramatic methods like role play and dramatization
- 4. Select Instructional method (s) on the basis of objectives of lesson plans and KAS domains
- 5. Select appropriate educational materials and apply at right Time and place.
- 6. Evaluate the trainees applying various tools to correspond the KAS domains

- 7. Make plans for classroom / field work / workshop organization and management.
- 8. Coordinate among objectives, subject matter and instructional methods.
- 9. Prepare lesson plan for Theory and Practical classes.
- 10. Deliver /conduct instruction / program
- 11. Evaluate instruction/ program

Suggestion for the performance evaluation of the trainees

- 1. Perform task analysis
- 2. Develop a detail task performance checklist
- 3. Perform continuous evaluation of the trainees by applying the performance checklist.

Suggestion for skill training

Demonstrate performance

- 1. Demonstrate task performance in normal speed
- 2. Demonstrate slowly with verbal description of each and every step in the sequence of activity of the task performance using question and answer techniques.
- 3. Repeat 2 for the clarification on trainees demand if necessary
- 4. Perform fast demonstration of the task.

Provide trainees the opportunities to practice the task performance demonstration

- 1. Provide trainees to have guided practice
- 2. Create environment for practicing the demonstrated task performance
- 3. Guide the trainees in each and every step of task performance
- 4. Provide trainees to repeat and repeat as per the need to be proficient on the given task performance
- 5. Switch to another task demonstration if and only trainees developed proficiency in the task performance.

Other suggestions

- 1. Apply principles of skill training
- 2. Allocate 20% Time for Theory classes and 80% Time for task performance while delivering instructions
- 3. Apply principles of adult learning
- 4. Apply principles of intrinsic motivation
- 5. Facilitate maximum trainees involvement in learning and task performance activities
- 6. Instruct the trainees on the basis of their existing level of knowledge, skills and attitude.

Modules and sub modules

Module: 1: Introductory livestock & social mobilization

Description: It deals with the knowledge and skills related to Introductory livestock & social mobilization.

Objectives: After its completion the trainees will be able:

- 1. To introduce livestock occupation
- 2. To be familiar with the concept of social mobilization

Sub-modules:

- 1. Introduction to livestock
- 2. Social mobilization

Sub module: 1: Introduction to livestock

Description: It deals with the knowledge and skills/tasks related to introductory livestock. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge. **Objective:** After its completion the trainees will be able:

• To introduce livestock occupation

-	L	1			•
		Th.(5	(hrs) + Pr.(5 hrs) = Tot.(10 hrs)	nrs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Develop concept of animal husbandry	1	 The importance and scope of livestock production to the farming system in Nepal. Importance of livestock productivity as source of income and major capital investment of most village farmers 	1	2
2	Develop concept of livestock management	1	• General requirements for livestock farming e.g. housing feed, water, health care etc	1	2
3	Perform First Aid in animals	1	• Bleeding control, wound dressing, dehydration control, fever control, treatment for poisoning, burns and scalds	1	2
4	Develop concept of	1	• The importance and	1	2

	Poultry production/ management		 scope of poultry production in Nepal Brief introduction to housing, feeding and water requirement to 		
			different types of poultry production		
5	Develop concept of Fish farming	1	 The importance and scope of fish production in Nepal Brief introduction to housing, feeding and water requirement to different types of fish farming 	1	2
	Total:	5	-	5	10
	Sub	module	: 2: Social mobilization		
re pi O	elated technical knowledge n rofessional manner, and time Dbjective: After its completio • To be familiar wit	ecessary t allocation on the train h the conc the trained	ept of social mobilization es are expected to get proficienc	compet vledge.	
			in related technical knowledge.		;
SN		Th (10	-	-	;
DIN	Tasks/skills/competencies	Pr	hrs) + Pr.(28 hrs) = Tot.(38 Related technical knowledge	hrs) Th	Tot
1	Tasks/skills/competencies Observe the Sites		 hrs) + Pr.(28 hrs) = Tot.(38 Related technical knowledge Background information (Location, General Socio 	hrs)	
		Pr (hrs)	 hrs) + Pr.(28 hrs) = Tot.(38 Related technical knowledge Background information 	hrs) Th (hrs)	Tot (hrs)
1	Observe the Sites	Pr (hrs) 3) hrs) + Pr.(28 hrs) = Tot.(38 Related technical knowledge • Background information (Location, General Socio economic condition) • Number of communities, 	hrs) Th (hrs) 1	Tot (hrs) 4
1	Observe the Sites Select Community Sites	Pr (hrs) 3 3) hrs) + Pr.(28 hrs) = Tot.(38 Related technical knowledge Background information (Location, General Socio economic condition) Number of communities, target objectives Techniques, social 	hrs) Th (hrs) 1 1	Tot (hrs) 4 4
1 2 3	Observe the Sites Select Community Sites Build Rapport	Pr (hrs) 3 3 3) hrs) + Pr.(28 hrs) = Tot.(38 Related technical knowledge Background information (Location, General Socio economic condition) Number of communities, target objectives Techniques , social environment 	hrs) Th (hrs) 1 1 1	Tot (hrs) 4 4 4
1 2 3 4	Observe the Sites Observe the Sites Select Community Sites Build Rapport Prepare Village Profile Collect Information from Other Organizations	Pr (hrs) 3 3 3 3	 hrs) + Pr.(28 hrs) = Tot.(38 Related technical knowledge Background information (Location, General Socio economic condition) Number of communities, target objectives Techniques , social environment Tools, keeping records Targeted details about the organizations, keeping 	hrs) Th (hrs) 1 1 1 1	Tot (hrs) 4 4 4

			writing		
8	Conduct Household Survey	3	 Data collection, checklist/questionnaires preparation, sampling methods, keeping records 	1	4
9	Conduct Individual Interview	1	 Key informants, checklist/questionnaires preparation, sampling methods, keeping records 	1	2
10	Conduct Group Interview	3	 Checklist/questionnaires preparation, time management, keeping records 	1	4
	Total:	28		10	38

Module: 2: Livestock management

Description: It deals with the knowledge and skills related to herd/flock management, breeding management, nutrition management and goat / sheep keeping.

Objectives: After its completion the trainees will be able:

- To assist for herd/flock management
- To assist for breeding management
- To manage nutrition
- To keep goat / sheep

Sub-modules:

- 1. Herd/flock management
- 2. Breeding management
- 3. Nutrition management
- 4. Goat / sheep keepi

Sub-module:1: Herd/flock management

Description: It deals with the knowledge and skills/tasks related to herd/flock management. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge. **Objective:** After its completion the trainees will be able:

• To assist for herd/flock management

		Th.(Th.(9 hrs) + Pr.(27 hrs) = Tot.(36 hrs)		
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Manage housing	3	• Criteria of site selection	1	4
			• Construction of animal		
			shed		

		3	 Construction of individual pen Use of locally available materials for the construction Special requirements for 1 4
2	Care/Manage pregnant/ milch animal	3	 Special requirements for pregnant female animals (feed, water, housing) Precautions to be taken during parturition, handling of dystocia Caring of mothers after parturition Care for udder to prevent mastitis
3	Keep record of production / animal health	3	Importance of record I A Keeping for management decisions (breeding records, production and weight gain records, feeding records, financial records and health records
4	Care/Manage of newly born calves	3	Care of the new born 1 (warm, dry, ensure that it is feeding, colostrums and its importance, dipping of navel to prevent infections)
5	Identify animal Animals	3	 Importance and various 1 4 methods of identification Different types of tags available and
6	Shear wools	3	 Introduction to wool fiber 1 4 proper Different shearing techniques
7	Care/Manage chicks	3	 Artificial brooding 1 4 equipment for chicks light, temperature, space, feeder & guard bar, etc Brooding with mother hen \ natural Cleaning and replacing litter

0				1	
8	Care/Manage broiler	3	• Feed, water, space	1	4
			requirement		
			• Cleaning and replacing litter		
			Vaccination		
9	Care/Manage	3		1	4
,	grower/layer	5	• Feed, water, space requirement	1	-
	growen/layer		 Cleaning and replacing 		
			litter		
			Vaccination		
	Total:	27		9	36
				-	
			2: Breeding management		
			edge and skills/tasks related to		
	e		erminal performance objective,		
			o carry out that very task in a		ent/
			for the task and its related know	ledge.	
	Objective: After its completion				
	• To assist for breed			1 .	
			es are expected to get proficiency	y on the	
	Ionowing tasks togeth	er with the	eir related technical knowledge:		
		Th (5 hrs) + Pr.(15 hrs) = Tot.(20 h	rs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
511	Tusks, skins, competencies	(hrs)	Related technical knowledge	(hrs)	(hrs)
1	Manage improve	3	• Breed wise selection	1	4
	breeding sire		criteria		
	C .		• Feed, water, space		
			requirement		
			• Regular health checkup		
			care for external and		
			internal parasite		
			• Maintenance of service		
2	Manage improve	3	Breed wise selection	1	4
	breeding female/dam		criteria		
			• Feed, water, space		
			requirement		
			• Regular health checkup		
			care for external and		
			internal parasite		
		1	D1 C 1 1'		
			• Plan for breeding		
3	Assist to provide AI	3	 Plan for breeding Introduction to AI merits 	1	4
3	Assist to provide AI	3		1	4
3	Assist to provide AI	3	• Introduction to AI merits	1	4

	:£	[D 111 /		
	infertility		Possible correction		
5	Keen breeding record	3	measures	1	4
3	Keep breeding record	3	Contents and preparation	1	4
		1.5	breeding record	~	20
	Total:	15		5	20
			3: Nutrition management		
n ra p C	nanagement. Each task con- elated technical knowledge n professional manner, and time Dbjective: After its completion • To manage nutriti Fasks: To fulfill the objective	sists of te ecessary to allocation on the train on the trained	edge and skills/tasks related t erminal performance objective, o carry out that very task in a c for the task and its related know ees will be able: es are expected to get proficiency eir related technical knowledge:	minim compete /ledge.	num nt /
	1	Th ((24 h)	r a)	
SN	Taska/akilla/acompatancias	Pr	6 hrs) + Pr.(18 hrs) = Tot.(24 h) Related technical knowledge	rs) Th	Tot
SIN	Tasks/skills/competencies		Related technical knowledge		
1	Identify local grasses	(hrs) 2	Introduction to different	(hrs) 0.5	(hrs) 2.5
1			local grasses found in Nepal e.g vetch, paspalum, amliso, molasses, stylo, kudju, desmodium etc		
2	Grow improved grasses	3	• Requirements for growing of Napier, Setaria, Rye, Berseem, Oat	1.0	4.0
3	Prepare silage/ hay	2	 Crops suitable for hay/silage making according to season Process of hay and silage making, characteristics of good hay and silage Storage of hay, straw stalks and silage and their utilization 	0.5	2.5
4	Improve nutritive value of dry roughage	1	 Roughage treatment - by physical and chemical means Urea treatment 	0.5	1.5
5	Calculate dry matter requirement	1	• Definition of dry matter (DM) and its components, role and	0.5	1.5

			 requirement of dry matter in animal nutrition Total amount of feed consumption by an animal in dry matter and fresh matter basis in roughages and concentrates in daily, weekly and monthly basis 		
6	Grow fodder tree	2	 Locally available multipurpose fodder trees and their importance Procedure of growing 	1.0	3.0
7	Manage fodder nursery	3	• Care and management of fodder nursery	1.0	4.0
8	Orient feeding practice	2	• Day to day feeding of animals with different types of feed	0.5	2.5
9	Formulate locally available concentrate ration	2	• Simple concept of ration formulation: protein requirement, energy requirement, DM requirement, minerals and vitamins and their sources	0.5	2.5
	Total:	18		6	24

Sub-module:4: Goat / sheep keeping

Description: It deals with the knowledge and skills/tasks related to goat and sheep keeping. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge. **Objective:** After its completion the trainees will be able:

• To Keep goat / sheep

		Th.(:	5 hrs) + Pr.(15 hrs) = Tot.(20 h	rs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Plan for Goat / Sheep keeping	3	• Importance of sheep and goat production in different parts of Nepal (geographical, economical, socio- cultural)	1	4

2	Manage housing	3	Types of housing and equipment facilities provided for different types of animals according to number, size, sexes and management level: lamb/kids, lactating and dry, breeding male and pregnant, sick, etc.	4
3	Identify breeds	3	Different types of breeds Exotic and Indigenous and their characteristics	4
4	Protect Goat / Sheep	3	• Vaccination and 1 deforming in sheep and goat	4
5	Feed Goat / Sheep	3	 Day to day feeding of concentrate and green and dry fodder feeding practices Stall feeding and pasture feeding 	4
	Total:	15	5	20

Sub-module: 5: Pet animal production and management

Description: It deals with the knowledge and skills/tasks related to pet animal production and management. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

• To keep pet (dogs, cats)

		Th.(2 hrs) + Pr.(6 hrs) = Tot.(8 hrs)	
SN	Tasks/skills/competencies	Pr (hrs)	Related technical knowledge Th (hrs)	Tot (hrs)
1	Plan for pet keeping	1.2	• Reasons and advantages 0.4 of pet animals, types of pet	1.6
2	Identify breeds	1.2	Common breeds of dog and cat in Nepal	1.6
3	Care and manage dog	1.2	• Use of leads, choke 0.4	1.6

			 collars, brushing and bathing a dog Administration of medicine; nail and to care, clipping of hair some breeds Sanitation of dog ke 	ooth r in	
4	Protect dog/cat	1.2	Vaccination and de- worming, deticking dog and cat		1.6
5	Feed dog/cat	1.2	 Day to day feeding practices Food requirements a common dog foods to in the market 		1.6
	Total:	6		2	8
Module: 3: Livestock health services Description: It deals with the knowledge and skills related to preventive services, first aid treatment, zoonotic diseases, and drugs management. Objectives: After its completion the trainees will be able: • To provide / facilitate preventive services • To provide first aid treatment • To be familiar with zoonotic diseases • To assist to manage drugs Sub-modules: 1. Preventive services 2. First aid treatment 3. Zoonotic diseases 4. Drugs management					
	Sub	module	: 1: Preventive servic	es	
li	Description: It deals with th ivestock health services. Each ninimum related technical kr	e knowle h task co	dge and skills/tasks relat nsists of terminal perfor	ted to preven mance object at very task	tive, in a

competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

• To provide / facilitate preventive livestock health services

		Th.(8	(3 hrs) + Pr.(8 hrs) = Tot.(16 hrs)	ırs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)

1	Organize awareness program for farmers	1	 Set up farmers group Focus on de-worming vaccination and general care and management of livestock for preventive measures 	1	2
2	Facilitate for animal health campaign	1	 Dissemination of message Coordination among the stakeholders Preparation for the camp, drugs, vaccines, surgical instruments etc. 	1	2
3	Quarantine animals	1	 Definition of quarantine Quarantine procedure	1	2
4	Isolate sick animal	1	 Justification of isolation Isolation procedure 	1	2
5	Vaccinate animals / poultry	1	 Introduction to vaccine Common vaccines and their inoculation procedure in animals and poultry 	1	2
6	Disinfect shed / poultry farm	1	 Definition of disinfection Different types of disinfectants used in livestock and poultry farms Actual process of cleaning and disinfection 	1	2
7	Carry out routine drenching	1	 Procedure of drenching Common drenching done at livestock farm 	1	2
8	Dispose carcass	1	Different methods of carcass disposal	1	2
	Total:	8		8	16

Sub module: 2: First aid treatment

Description: It deals with the knowledge and skills/tasks related to first aid treatment in livestock/animals. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

• To provide first aid treatment

_	following tasks togeth	er with th	eir related technical knowledge:		
	T		$7 hm$ \downarrow $Dr(21 hm) = Tet(29)$	1	1
SN	Tasks/skills/competencies	Pr	7 hrs) + Pr.(21 hrs) = Tot.(28 Related technical knowledge	nrs) Th	Tot
SIN	Tasks/skins/competencies	(hrs)	Kelated technical knowledge	(hrs)	(hrs)
1	Control bleeding	3	 Different methods of controlling bleeding Ligation, use of haemostat 	1	4
2	Dress wound	3	 Procedure of wound dressing aseptically Common anticeptics and ointments used in wound dressing 	1	4
3	Perform local splinting in fracture	3	 Indication of splinting Local splints and their application procedure 	1	4
4	Provide oral rehydration	3	 Assessment of dehydration Preparation of rehydration solutions and their uses 	1	4
5	Treat for burning / scald	3	 Management and treatment of burns and scalds cases 	1	4
6	Treat for poisoning	3	 Use of emetics Use of purgatives and chelating agents General symptomatic treatment 	1	4
7	Control high fever	3	 Management of fever cases use of ice pack Common antipyretic drugs 	1	4
	Total:	21		7	28

Description: It deals with the knowledge and skills/tasks related to zoonotic diseases. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge. **Objective:** After its completion the trainees will be able:

• To be familiar with zoonotic diseases

		Π	eir related technical knowledge:		1
		Th.(5	5 hrs) + Pr.(15 hrs) = Tot.(201)	nrs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Familiarize with Meat borne diseases	3	• Enlist meat borne diseases and their adverse effects in humans	1	4
2	Familiarize with Milk Born diseases	3	• Enlist milk borne diseases and their adverse effects in humans	1	4
3	Familiarize with Common Bacterial zoonoses	3	• Enlist bacterial zoonotic diseases and their adverse effects in humans	1	4
4	Familiarize with Common Viral zoonoses	3	• Enlist viral zoonotic diseases and their adverse effects in humans	1	4
5	Familiarize with Common Parasitic zoonoses	3	• Enlist common parasitic zoonotic diseases and their adverse effects in humans	1	4
	Total:	15		5	20

Sub module: 4: Drugs management

Description: It deals with the knowledge and skills/tasks related to drugs management. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge. **Objective:** After its completion the trainees will be able:

• To assist to manage drugs

		Th.(5	5 hrs) + Pr.(15 hrs) = Tot.(201	nrs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Clean shops	3	 Removal of unwanted materials/ substances and their management Disinfection 	1	4
2	Store Medicine	3	 Storing in the refrigerator Storing and labeling at medicine rack 	1	4

3	Prepare Bill	3	Format of a billFilling up of the bill after drug sale	1	4
4	Maintain Inventory	3	 Preparing a day book Preparing a cash register Maintaining a ledger	1	4
	Total:	15		5	20

Module: 4: Livestock Products management

Description: It deals with the knowledge and skills related to manage dairy and poultry products, and wool and hide.

Objectives: After its completion the trainees will be able:

- To manage dairy products
- To manage poultry products
- To manage wool and hide

Sub-modules:

- 1. Dairy products management
- 2. Poultry products management
- 3. Wool/hide management

Sub module: 1: Dairy products management

Description: It deals with the knowledge and skills/tasks related to dairy products management. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge. **Objective:** After its completion the trainees will be able:

• To manage dairy products

		Th.(11	1 hrs) + Pr.(33 hrs) = Tot.(44	hrs)	
SN	Tasks/skills/competencies	Pr (hrs)	Related technical knowledge	Th (hrs)	Tot (hrs)
1	Produce clean milk	3	• Points to be considered in clean milk production	1	4
2	Perform plate form test	3	 Different organoleptic test Clot on boiling Alcohol test 	1	4
3	Pasteurize milk	3	 Principles involved in pasteurization, Methods of pasteurization: local and using special equipment 	1	4
4	Make dahi/ yoghurt	3	• Use of different starter	1	4

			 culture Preparation principles and storage of dahi/ yoghurt
5	Make sweets	3	Procedure and principle 1 4 of making Raswari, Lalmohan
6	Make paneer	3	Procedure and principle 1 4 of making Paneer
7	Make khuwa	3	Procedure and principle 1 4 of making Khuwa
8	Make chenna	3	Procedure and principle 1 4 of making Chenna
9	Make butter / ghee	3	Procedure and principle 1 4 of making butter/ghee
10	Make churpi	3	Procedure and principle 1 4 of making churpi
11	Make ice-cream	3	Procedure and principle 1 4 of making ice-cream
	Total:	33	11 44

Sub module: 2: Poultry products management

Description: It deals with the knowledge and skills/tasks related to poultry products management. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

- **Objective:** After its completion the trainees will be able:
 - To manage poultry products

		Th.(6	hrs) + Pr.(18 hrs) = Tot.(24)	hrs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Collect eggs	3	 Procedure of egg collection egg washing Precautionary measures to produce unsoiled eggs 	1	4
2	Grade eggs	3	• Criteria of egg grading (shape, size, colour cleanliness etc)	1	4
3	Store eggs	3	• Storing in the tray, Types of trays holding of tray	1	4

			• Storing at room temperature and refrigerator
4	Manage egg transportation	3	 Transportation by 1 4 different means Management of tray at vehicle
5	Market eggs	3	• Survey of egg supply at 1 4 local situation (demand and supply)
6	Market Live bird	3	• Survey of live bird supply 1 4 at local situation (demand and supply)
	Total:	18	6 24

Sub module: 3: Wool / hide management

Description: It deals with the knowledge and skills/tasks related to wool and hide management. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge. **Objective:** After its completion the trainees will be able:

• To manage wool and hide

	1	T			•
		Th.(7	hrs) + Pr.(21 hrs) = Tot.(28)	hrs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Collect Wool	3	• Shearing of wool from live animal and its collection	1	4
2	Grade Wool	3	• Criteria of wool grading (fleece length, fleece colour, diameter etc)	1	4
3	Store Wool	3	• Procedure and precaution of wool storage (temperature humidity, storing place etc)	1	4
4	Market wool	3	• Survey of wool supply (demand and supply)	1	4
5	Collect hide	3	• Procedure of hide collection	1	4
6	Perform initial processing of hide	3	• Steps of hide processing	1	4
7	Market hide	3	• Survey of hide supply	1	4

			(demand and supply)			
	Total:	21	(demand and suppry)	7	28	
	10tal.	21		/	20	
	Module: 5: Ma	arketing,	communication and entrep	reneur		
	—		dge and skills related to marke		ock	
-			develop entrepreneurship skills.			
	Objectives: After its completi		inees will be able:			
	• To market livestock p					
	• To communicate with					
	• To develop entreprene	urship ski	lls			
	Sub-modules:	1				
	 Livestock product man Communication 	rketing				
	 Communication Entrepreneur developn 	nent				
	Sub mod	dule: 1:	Livestock product marketin	g		
I	Description: It deals with the	he knowl	edge and skills/tasks related to) livesto	ock	
I	product marketing. Each ta	ask consi	sts of terminal performance	objecti	ve,	
		-	necessary to carry out that very			
0	competent/ professional manner, and time allocation for the task and its related knowledge.					
ł	6					
ł	Objective: After its completion		nees will be able:			
ŀ	Objective: After its completion • To market livestock	products		er og the		
ŀ	Objective: After its completion • To market livestock Tasks: To fulfill the objective	products the traine	es are expected to get proficienc	y on the	,	
ŀ	Objective: After its completion • To market livestock Tasks: To fulfill the objective	products the traine		y on the		
ŀ	Objective: After its completion • To market livestock Tasks: To fulfill the objective	the traine the with th	es are expected to get proficienc eir related technical knowledge:	-	;	
ŀ	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth	the traine the with th	tes are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hrs)	-	Tot	
	Objective: After its completion • To market livestock Tasks: To fulfill the objective	the trained products the trained per with the trained per with the Th.	es are expected to get proficienc eir related technical knowledge:	rs)		
	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth	products the traine er with th Th.(Pr	tes are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hrs)	rs) Th	Tot	
SN	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies	r products the traine er with th Th.(Pr (hrs)	es are expected to get proficienc eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 h Related technical knowledge	rs) Th (hrs)	Tot (hrs)	
SN	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies	r products the traine er with th Th.(Pr (hrs)	ees are expected to get proficienc eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge • Introduction to different	rs) Th (hrs)	Tot (hrs)	
SN	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies	r products the traine er with th Th.(Pr (hrs)	 es are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques 	rs) Th (hrs)	Tot (hrs)	
SN	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies	r products the traine er with th Th.(Pr (hrs)	 es are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, 	rs) Th (hrs)	Tot (hrs)	
I I I I I I I I I I I I I I I I I I I	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products	r products the trained er with th Th.(Pr (hrs) 1	 ees are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) 	rs) Th (hrs) 1	Tot (hrs) 2	
I I I I I I I I I I I I I I I I I I I	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products	r products the trained er with th Th.(Pr (hrs) 1	 ees are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking 	rs) Th (hrs) 1	Tot (hrs) 2	
I I I I I I I I I I I I I I I I I I I	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products Season livestock products	r products the trained er with th Th.(Pr (hrs) 1	 es are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing 	rs) Th (hrs) 1	Tot (hrs) 2	
I I I I I I I I I I I I I I I I I I I	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products	r products the trained er with th Th.(Pr (hrs) 1	 ess are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking Drying etc Survey of livestock 	rs) Th (hrs) 1	Tot (hrs) 2	
1 2	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products Season livestock products	r products the traine er with th Th.(Pr (hrs) 1 1	 ess are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking Drying etc 	rs) Th (hrs) 1 1	Tot (hrs) 2 2	
1 2	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products Season livestock products	r products the trained er with th Th.0 Pr (hrs) 1	 ess are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking Drying etc Survey of livestock products' market Different types of 	rs) Th (hrs) 1 1	Tot (hrs) 2 2	
1 2 3	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products Season livestock products Identify market	r products the traine er with th Th.(Pr (hrs) 1 1	 ees are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking Drying etc Survey of livestock products' market Different types of transportation system 	rs) Th (hrs) 1 1 1 1	Tot (hrs) 2 2 2	
1 2 3	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products Season livestock products Identify market	r products the traine er with th Th.(Pr (hrs) 1 1	 ees are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking Drying etc Survey of livestock products' market Different types of transportation system used for livestock 	rs) Th (hrs) 1 1 1 1	Tot (hrs) 2 2 2	
Image: second	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth • Tasks/skills/competencies Store livestock products Season livestock products Identify market Manage transportation	r products the trained er with th Th.(Pr (hrs) 1 1 1 1	 ess are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking Drying etc Survey of livestock products' market Different types of transportation system used for livestock products 	rs) Th (hrs) 1 1 1 1 1 1 1	2 2 2 2	
1 2 3	Objective: After its completion • To market livestock Tasks: To fulfill the objective following tasks togeth Tasks/skills/competencies Store livestock products Season livestock products Identify market	r products the traine er with th Th.(Pr (hrs) 1 1	 ees are expected to get proficience eir related technical knowledge: (6 hrs) + Pr.(6 hrs) = Tot.(12 hr Related technical knowledge Introduction to different storing techniques (Thermal storage, curing, canning etc) Curing Freezing Smoking Drying etc Survey of livestock products' market Different types of transportation system used for livestock 	rs) Th (hrs) 1 1 1 1	Tot (hrs) 2 2 2	

			technique		
6	Prepare packages	1	Principles of packaging	1	2
0	Trepare packages	1	 Different packaging 	1	2
			techniques for different		
	Total:	6	livestock products	6	12
	10tal.	0		0	12
			e: 2: Communication		
	-		8	related	to
			erminal performance objective,		
	-	•	o carry out that very task in a c	-	nt/
			for the task and its related know	vledge.	
	D bjective: After its completion		ees will be able:		
_	• To communicate wi				
1	5		es are expected to get proficienc	y on the	•
	following tasks togeth	er with the	eir related technical knowledge:		
		TP1 ((
			3 hrs) + Pr.($8 hrs$) = Tot.($16 hrs$)		
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
1		(hrs)	~	(hrs)	(hrs)
1	Write Job Application	1	• Contents and format of	1	2
_			application		-
2	Prepare Resume	1	• Contents and format of	1	2
			resume		
3	Communicate with senior	1	Disciplinary approach	1	2
			 Develop skills to 		
			communicate with senior		
4	Communicate with junior	1	Disciplinary approach	1	2
			• Skills to communicate		
			with junior		
5	Deal with Customers	1	• Important points taken	1	2
			into consideration while		
			dealing with customers		
6	Communicate with Other	1	• Important points taken	1	2
	Farm owners		into consideration while		
			dealing with farmers		
7	Request / Purchase Tool,	1	• Enlisting the materials of	1	2
	Supplies, Materials and		purchase		
	Equipment		• Making inquiry with the		
			concerning agent		
8	Fill up Leave Requisition	1	• Format and content of	1	2
	form		leave requisition form		
	Total:	8	-	8	16

Sub module: 3: Entrepreneur development

Description: It deals with the knowledge and skills/tasks related to entrepreneurship skills development. Each task consists of terminal performance objective, minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

• To develop entrepreneurship skills

			7 hrs) + Pr.(19 hrs) = Tot.(26 h	nrs)	
SN	Tasks/skills/competencies	Pr	Related technical knowledge	Th	Tot
		(hrs)		(hrs)	(hrs)
1	Develop Entrepreneurial Competencies	3	• Market information, govt. policies, market channel	1	4
2	Select / Identify a Project	3	• Scope, market demand, project formulation, project feasibility	1	4
3	Manage an Enterprise	3	• Office establishment, staff selection, human resource management, market channel	1	4
4	Develop Marketing Skill.	3	• Market strategies, market information, company policies, market channel	1	4
5	Conduct Promotional Activities	3	• Types (training, advertisement, fair)	1	4
6	Prepare a Business Plan / Scheme	3	• Inventory, budget allocation	1	4
7	Develop communication Skills	1	• Type of communication : mass, individual, group and media	1	2
	Total:	19		7	26
	List c	of tools, n	naterials and equipment		
	 Different vaccines for bovines- Cattle, Buffalo (HS, FMD, IBD, PPR) Casting rope, Trevis Drenching bottle 		For dog keeping:		
			 Different vaccines for Dogs ARV, Corona, DHPpiL Charts of different breeds of dogs. Grooming kit (Nail clipper, brush, dusting powder, shampoo, etc) Collars, tags. 		
• Balling gun					
	• AI gun		For animal health camp:		

 Trocar and canula AI sheath AI catheter. Different types of fodders and their seeds (Napier, Berseem, Stylo, Vetch, Amriso, Paspalam, Taki, etc). Chopping machine. Urea, equipments for preparation of mineral blocks. Molasses, feed(concentrate and roughages) Oven/ dessicstor. Weighing machine Anthelmintics (Albendazole, Febendazole (Panacur), 	 Anthelmintics, Vaccines, Ice box, Ice packs, Antifungal oientments, Syringes- 3ml, 5ml, 10ml, 20ml, Surgical instrument set, Burdizzo's castrator- large, medium. For First Aid treatment: Catgut, Suturing needles, KMnO4, Vitamin K injection, Betadine, Cotton swabs. Hydrogen peroxide, Cotton rolls, Dettol, Savlon, Sulphur Oientment, fly repellent oientments, IV set, canula Splints, Local/ genera; anaesthetic agents, Cotton swabs, Analgesics,
Levamisole, Ivermectin, etc). <u>For dairy:</u> • Yoghurt Culture • Pots of various sizes, Milk, Sugar, Flavours, Emulsifiers, Stabilizers.	 Antibiotics. Normal Saline Solution, Dextrose solution, RL solution, Hemacoel. <u>Poultry product management:</u> Candling machine, Egg crates, Egg boxes, Trays etc.
 Text book of animal husbandry <u>By</u>: G. C. Banerjee Dairy technology <u>By</u>: Sukumar Dey Kukhura Palan Gyan <u>By</u>: Dr. Bansi sharma /Dinesh Parajuli Sheep and Goat production By: Dr. B. R. Joshi Gaai Palan By: Dr. Bhuwaneshwar sharma 	 Krishi Prachar By: Department of livestock Services Techniques in veterinary surgery By: Anresh Kumar Dogs By: Amalendu Chakrawarti Ethnic Veterinary Practices in South Asian Countries. (Heifer publications) CTEVT publications
Well equipped enough class/	Facilities Multimedia presentation set
 Wen equipped enough class/ office rooms Demonstration farms for various livestock species Transportation facilities Laboratory / library OHP/computers/ Pictures 	 Various animal feeds and fodders Source of concentrate feeds(feed mill) Hostel/canteen /drinking water