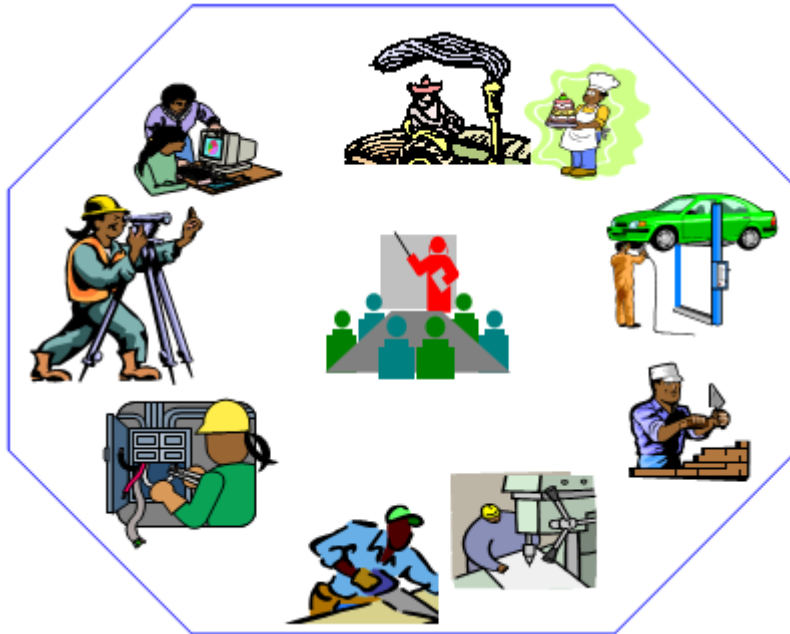




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Ministry of Labor and Skills

Animal Production

Level I



CURRICULUM

Based on April, 2022 (Version- I) Occupational
standard (OS)

April, 2022

Addis Ababa, Ethiopia

Preface

The reformed TVET-System is an outcome-based system. It utilizes the needs of the labor market and occupational requirements from the world of work as the benchmark and standard for TVET delivery. The requirements from the world of work are analyzed and documented – taking into account international benchmarking – as occupational standards (OS).

In the reformed TVET-System, curricula and curriculum development play an important role with regard to quality driven comparable TVET-Delivery. The Curricula help to facilitate the training process in a way, that trainees acquire the set of occupational competences (skills, knowledge and attitude) required at the working place and defined in the occupational standards (OS).

This curriculum has been developed by a group of professional experts and lecturers from Alage, Agarfa, Kombolcha, Mizan and Gewane ATVET Colleges based on the occupational standard for **Animal production Level I**.

The curriculum development process has been actively supported and facilitated by **Ministry of Labor and Skills**.

TVET-Program Design

1.1. TVET-Program Title: Animal production Level I

1.2. TVET-Program Description

The Program is designed to develop the necessary knowledge, skills and attitude of the trainees to the standard required by the occupation. The contents of this program are in line with the occupational standard. The Trainees who successfully completed the Program will be qualified to work as an **Animal production** with competencies elaborated in the respective OS. Graduates of the program will have the required qualification to work in the **agricultural** sector in the field of **Animal production** .

The prime objective of this training program is to equip the Trainees with the identified competences specified in the OS. Graduates are therefore expected to Carryout basic husbandry practice for Livestock and Fishery, Identify Animal Feed Resource and livestock feeding, Establishment of pasture and preservation of feeds, Work on Animal Welfare Requirements, Handle and preserve hide and skin, Apply Agricultural Extension Service Implement Agribusiness Marketing, Apply Basics of Human Nutrition Practices and Apply 5S Procedures in accordance with the performance criteria described in the OS in accordance with the performance criteria described in the OS in accordance with the performance criteria and evidence guide described in the OS.

1.3. TVET-Program Training Outcomes

The expected outputs of this program are the acquisition and implementation of the following units of competences:

AGR ANP1 01 0322 Carryout Basic Husbandry Practice for Livestock and Fishery

AGR ANP1 02 0322 Identify Animal Feed Resource and Feeding of Livestock

AGR ANP1 03 0322 Establishment of Pasture and Preservation of Feeds

AGR ANP1 04 0322 Work on Animal Welfare Requirements

AGR ANP1 05 0322 Handle and Preserve Hide and Skin

AGR ANP1 06 0322 Apply Agricultural Extension Service

AGR ANP1 07 0322 Implement Agribusiness Marketing

AGR ANP1 08 0322 Apply Basics of Human Nutrition Practices

AGR ANP1 09 0322 Apply 5S Procedures

1.4. Duration of the TVET-Program

The Program will have duration of **446 hours** including on school/ Institution training and on-the-job practice or cooperative training time. Such cooperative training based on realities of the industry, nature of the occupation, location of the TVET institution, and

other factors will be considered in the training delivery to ensure that trainees acquire practical and workplace experience.

s.no	Unit competency	TVET Institution training		Cooperative training	Total hours	Remarks
		Theory	Practical			
1.	AGR ANP1 01 0322 Carryout Basic Husbandry Practice for Livestock and Fishery	20	35	20	75	
2.	AGR ANP1 02 0322 Identify Animal Feed Resource and Feeding of Livestock	15	25	15	55	
3.	AGR ANP1 03 0322 Establishment of Pasture and Preservation of Feeds	10	30	20	60	
4.	AGR ANP1 04 0322 Work on Animal Welfare Requirements	10	15	10	35	
5.	AGR ANP1 05 0322 Handle and Preserve Hide and Skin	10	20	10	40	
6.	AGR ANP1 06 0322 Apply Agricultural Extension Service	25	15	8	48	
7.	AGR ANP1 07 0322 Implement Agribusiness Marketing	20	10	10	40	
8.	AGR ANP1 08 0322 Apply Basics of Human Nutrition Practices	20	20	8	48	
9.	AGR ANP1 09 0322 Apply 5S Procedures	20	10	15	45	
Level I Total hours		135	180	130	446	

1.5. Qualification Level and Certification

Based on the descriptors elaborated on the Ethiopian National TVET Qualification Framework (NTQF) the qualification of this specific TVET Program is Level I.

The trainee can exit after successfully completing the modules in one level and will be awarded the equivalent institutional certificate on the level completed. However, only institutional certificate of training accomplishment will be awarded.

1.6. Target Groups

Any citizen who meets the entry requirements under items 1.7 and capable of participating in the training activities is entitled to take part in the Program.

1.7 Entry Requirements

The prospective participants of this program are required to possess the requirements or directive of the **Ministry of Labor and Skills**.

1.8 Mode of Delivery

This TVET-Program is characterized as a formal Program on middle level technical skills. The mode of delivery is co-operative training. The time spent by the trainees in the real work place/ industry will give them enough exposure to the actual world of work and enable them to get hands-on experience.

The co-operative approach will be supported with school-based lecture-discussion, simulation and actual practice. These modalities will be utilized before the trainees are exposed to the industry environment.

Hence based on the nature of the occupation, location of the TVET institutions, and interest of the industry alternative mode of cooperative training such as apprenticeships, internship and traineeship will be employed. In addition, in the areas where industry is not sufficiently available the established production and service centers/learning factories in TVET institutions will be used as cooperative training places. The Training-Institution and identified companies have forged an agreement to co-operate with regard to the implementation of this program.

1.9. TVET-Program Structure

Unit of Competence	Module Code & Title	Training Outcomes	Duration (In Hours)
AGR ANP1 01 0322 Carryout Basic Husbandry Practice for Livestock and Fishery	AGRANP1 M01 0422 Carrying out Basic Husbandry Practice for Livestock and Fishery	<ul style="list-style-type: none"> Identify and Prepare materials, tools and equipment for livestock and fishery work Undertake livestock and fishery work as directed Clean up and store materials and equipment Record and report activities 	75
AGR ANP1 02 0322 Identify Animal Feed Resource and Feeding of Livestock	AGR ANP1 M02 0422 Identifying Animal Feed Resource and Feeding of Livestock	<ul style="list-style-type: none"> Assess feed resources Prepare materials, tools and equipment Clean up on completion of work 	55
AGR ANP1 03 0322 Establishment of Pasture and Preservation of Feeds	AGR ANP1 M03 0422 Establishing of Pasture and Preservation of Feeds	<ul style="list-style-type: none"> Prepare for pasture establishment Undertake pasture establishment Clean up and store materials and equipment Record and report work activities 	60
AGR ANP1 040322 Work on Animal Welfare Requirements	AGR ANP1 M04 0422 Working on Animal Welfare Requirements	<ul style="list-style-type: none"> Participate in animal welfare practices Follow standard operating procedures Report problems that affect animal welfare 	35
AGR ANP1 05 0322 Handle and Preserve Hide and Skin	AGR ANP1 M05 0422 Handing and Preserving Hide and Skin	<ul style="list-style-type: none"> Care for hide and skin on live animal Prepare hide and skin for preservation Undertake sorting and grading of hide and skin Clean up on completion of work 	40
AGR ANP1 06 0322 Apply Agricultural Extension Service	AGR ANP1 M06 0422 Applying Agricultural Extension Service	<ul style="list-style-type: none"> Understand the Concept and evolution of Agricultural Extension Apply Extension methods and Approaches Apply Agricultural Extension Communication and Facilitation for technology promotion Conduct Training 	48

		<ul style="list-style-type: none"> Record and Document Data 	
AGR ANP1 07 0322 Implement Agribusiness Marketing	AGR ANP1M 07 0422 Implementing Agribusiness Marketing	<ul style="list-style-type: none"> Understand concept of agricultural marketing Understand concepts of agribusiness Identify marketing targets for Agricultural products Implement marketing strategy Establish contract farming Establish contract farming 	40
AGR ANP1 08 0322 Apply Basics of Human Nutrition Practices	AGR ANP1 M08 0422 Applying Basics of Human Nutrition Practices	<ul style="list-style-type: none"> Identify Categories of agricultural foods items Recognize malnutrition in the community Identify the role of agriculture in nutrition Demonstrate diversified Agricultural food production and consumption techniques Perform proper handling and storage of agricultural food products Document and report food production, consumption and difficulties 	48
AGR ANP1 09 0322 Apply 5S Procedures	AGR ANP1 M09 0422 Applying 5S Procedures	<ul style="list-style-type: none"> Prepare for work. Sort items. Set all items in order Perform shine activities Standardize 5S. Sustain 5S. 	45

*The time duration (Hours) indicated for the module should include all activities in and out of the TVET institution.

1.10 Institutional Assessment

Two types of evaluation will be used in determining the extent to which training outcomes are achieved. The specific training outcomes are stated in the modules. In assessing them, verifiable and observable indicators and standards shall be used.

The *formative assessment* is incorporated in the training modules and form part of the training process. Formative evaluation provides the trainee with feedback regarding success or failure in attaining training outcomes. It identifies the specific training errors that need to be corrected,

and provides reinforcement for successful performance as well. For the teacher, formative evaluation provides information for making instruction and remedial work more effective.

Summative Evaluation the other form of evaluation is given when all the modules in the program have been accomplished. It determines the extent to which competence have been achieved. And, the result of this assessment decision shall be expressed in the term of institutional Assessment implementation guidelines..

Techniques or tools for obtaining information about trainees' achievement include oral or written test, demonstration and on-site observation.

1.11 TVET Teachers Profile

The teachers conducting this particular TVET Program are B Level and above who have satisfactory practical experiences or equivalent qualifications.

LEARNING MODULE 01	
TVET-PROGRAMME TITLE: Animal Production Level I	
MODULE TITLE: Carrying out Basic Husbandry Practice for Livestock and Fishery	
MODULE CODE: AGR ANP1 M 01 0422	
NOMINAL DURATION: 75 hours	
<p>MODULE DESCRIPTION: This module covers the knowledge, skills and attitude required to carry out basic husbandry practices for Livestock and Fishery that requires the ability to prepare materials, tools and equipment, undertake routine livestock and Fishery activities, handle material and equipment, and clean up on completion of work.</p>	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Identify and Prepare materials, tools and equipment for livestock and fishery work</p> <p>LO2. Undertake livestock and fishery work as directed</p> <p>LO3. Clean up and store materials and equipment</p> <p>LO4. Record and report activities</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Identify and prepare materials, tools and equipment for livestock and fishery work</p> <ol style="list-style-type: none"> 1.1. Conducting checks on all materials, tools and equipment 1.2. Manual handling techniques for loading and unloading materials 1.3. Selecting and checking Suitable Personal Protective Equipment (PPE) 1.4. Identifying and responding OHS hazards <p>LO2. Undertake Livestock and Fishery Work as Directed</p> <ol style="list-style-type: none"> 2.1. Planning and organizing husbandry activities 2.2. Using appropriate restraining methods 2.3. Undertaking livestock and fishery farming activities 2.4. Undertaking work in a safe and environmentally appropriate manner 2.5. Carrying out interactions with stakeholders 2.6. Observing policy and procedures 2.7. Observing workplace practices, handling and disposal of materials 2.8. Repairing and maintaining of buildings, fences, fixtures or fittings <p>LO3. Clean up and store materials and equipment</p> <ol style="list-style-type: none"> 3.1. Handling and transporting materials, equipment and machinery 	

3.2. Recycling waste material and disposing disposable materials

3.3. Cleaning , maintaining and storing tools and equipment

Lo4. Record and report activities

4.1. Recording and documenting accomplished activities

4.2. Reporting work outcomes

LEARNING METHODS:

- Lecture and Discussion
- Démonstration
- Group work
- Simulation
- Role playing

ASSESSMENT METHODS:

- Written test
- Oral questioning
- Practical demonstration

ASSESSMENT CRITERIA:

LO.1 Identify and Prepare materials, tools and equipment for livestock and fishery work

- The required materials, tools and equipment are identified and Prepare according to lists provided and/or supervisor's instructions.
- Checks are conducted on all materials, tools and equipment with insufficient or faulty items reported to the supervisor.
- Check correct manual handling techniques for loading and unloading materials are used to minimize damage to the load and the vehicle.
- Suitable Personal Protective Equipment (PPE) are selected and checked prior to use.
- OHS hazards are identified and responded according to OHS requirements and workplace information.

LO.2 Undertake livestock and fishery work as directed

- Instructions and directions provided by supervisor are followed and clarification sought when necessary.
- Appropriate restraining methods are used according to husbandry practice.
- Fishery farming activities are undertaken with appropriate manner under supervision.
- Work is undertaken in a safe and environmentally appropriate manner according to enterprise guidelines.
- Interactions with other staff, farmers and customers are carried out in a positive and professional manner.
- Enterprise or cooperative policy and procedures in relation to workplace practices, handling and disposal of materials are observed in environmentally safe manner.

LO.3 Clean up and store materials and equipment

- Waste material produced during work is stored in a designated area according to supervisor's instructions.
- Materials, equipment and machinery are handled and transported according to supervisor's instructions and enterprise guidelines.
- Disposable materials are disposed according to supervisor's instructions.
- Tools and equipment are cleaned, maintained and stored according to manufacturer specifications and supervisors instructions

LO.4 Record and report activities

- Activities accomplished and incidences are recorded and documented in standard format according to workplace procedures
- Problems or difficulties in completing work to required standards or timelines are reported to supervisor
- Work outcomes are reported to the supervisor.

Annex: Resource Requirements

AGR ANP1 M01 0422 : Carrying out Basic Husbandry Practice for Livestock and Fishery				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	<i>Learning Materials</i>			
1.	TTLM	prepared by the trainer	25	1:1
2.	Reference Books	Handbook of Good Dairy Husbandry Practices, 2020	7	1:4
		Modern Livestock & Poultry Production, 9th, Student Edition, 2009	5	1:5
		Sheep and goat production Handbook for Ethiopia, Alemu Yami and R.C.Merkel, 2008	5	1:5
3	Journals/Publication/Magazines	Standard	5	1:5
B.	<i>Learning Facilities & Infrastructure</i>			
1.	Class room	5*10m	1	1:25
2.	Clinic/first aid provision area	6*8m	1	1:25
3.	Library	5*7.5m	1	1:25
4.	Simulation room for assessment	3*5m	1	1:25
5.	Demonstration site	5*10m	1	1:25
6.	Laboratory	5*10m	1	1:25
7.	Work shop	9*4m	1	1:25
8.	Audiovisual room	5*10m	1	1:25
9.	ICT room	7*9m	1	1:25
10.	Printing and photocopy service	Standard	1	1:25
11.	Vehicles for cooperative/practical training	Standard	1	1:25
12.	White board	1.2*1.8m	1	1:25
13.	Black board	1.2*2m	1	1:25
14.	Chalk	Dubai	1 Packet	1:25



15.	Marker	Permanent and non permanent	2 Packet	1:13
16.	A3 paper	Double A Stationary A4 paper	25 Packet	1:1
17.	A4 paper	Double A Stationary A4 paper	25 Packet	1:1
18.	Fixer with lid	HB/1.5 mm	25 Packet	1:1
19.	Stencils	Ball point	10 Pcs	1:3
20.	Toner	HP	As needed, 10 pieces	1:3
21.	Fastener	ACCO two-piece paper fasteners	As needed, 50 pieces	2:1
22.	UTP cable	Cat5E UTP cable	2 boxes	1:13
23.	Notice board	900 mm x 600 mm Heavy duty wooden	1	1:25
24.	Green board	China Magnetic Green Board	1	1:25
25.	T-square	Aluminum metal type	25	1:1
26.	Flip chart	Sinar Line	1	1:25
27.	Graph paper	Roll	5	1:5
28.	pencil	HB	5	1:5
29.	Drawings with specifications	Any suitable drawing	5	1:5
30.	Ruler	Mica 30 cm	25	1:1
31.	Eraser	Standard	1	1:25
32.	Duster	Wooden made	1	1:25
33.	Computer	Desktop	25 Pcs	1:1
34.	Computer table	1*2m	13 Pcs	1:2
35.	LCD projector	EB-2250U HDMI/USB/LAN	1	1:25
36.	Laptop	Core i7, RAM 8, storag1TB	1	1:25
37.	Fish pond	10*20m	1	1:25
C.	Consumable Materials			
1	Savlon	1.0%–1.5% Glutaraldehyde concentration	5L	1:5
2	Alcohol	Standard	5L	1:5
4	Concentrate		100kg	4:1
5	Roughage		100kg	4:1
6	Milk	Whole milk	5L	1:5
	Bandage	Sterile	2 roll	1:13
	Formalin	40%	5L	1:5

<i>D.</i>	<i>Tools and Equipment's</i>			
1.	Burdizzo	Stainless steel	5	1:5
2	Hoof Trimmer	Stainless steel	5	1:5
3	Trocar And Canula	Stainless steel	5	1:5
4	Hoof Knife	Stainless steel	5	1:5
5	Heart Girth Measuring Meter	Plastic	5	1:5
6	Balling Gun	Standard	5	1:5
7	Drenching Gun	Standard	5	1:5
8	Ear Tag Applicator	Standard	5	1:5
9	Ear Tag	Standard	25	1:1
10	Debeaker	Standard	2	1:13
11	Lamp	Standard	5	1:5
12	Hover	Standard	2	1:13
13	Candler	Standard	5	1:5
14	Casting Mould	Stainless steel	2	1:13
15	Traditional Hives	Local	5	1:5
16	Transitional hive	Standard	5	1:5
17	Modern hive	Standard	5	1:5
18	Knife	Stainless steel	5	1:5
19	Chisel	Stainless steel	5	1:5
18	Incubator	100 hatcher capacity	2	1:13
19	Cream Separator	100 – 150/hour capacity	1	1:25
20	Fish Net	Standard	5	1:5
21	Sechi Disc	Standard	2	1:13
24	Ph Meter	Standard	5	2:5
25	Litmus paper	Standard	2 pack	1 :13
26	Dissolved Oxygen Meter	Standard	5	1:5
27	Churner	Standard	1	1:25
28	Lactometer	Standard	5	1:5
29	Refracto-Meter	Standard	2	1:13
30	Strip Cup	Standard	5	1:5
31	Rope	Nylon type	200 m	1:25
32	Frame	Standard	140	1:6
33	Queen Excluder	Standard	7	1:4
34	Queen Cage	Standard	7	1:4



35	Honey Extractor	Standard	1	1:25
36	Treatment Syringes	Standard	5	1:5
37	Vaccine Syringes	Standard	5	1:5
38	Sprayer	Standard	5	1:5
39	Scissors	Standard	5	1:5
40	Forceps	Standard	5	1:5
41	AI gun	Standard	2	1:13
42	Liquid Nitrogen Container	Standard	1	1:25
43	Measuring Rod	Standard	5	1:5
44	Thermometer	Standard	5	1:5
45	Honey Extractor	Standard	1	1:25
46	Thermo-Flask	Standard	1	1:25
47	Waterer	Standard	7	1:4
48	Feeder	Standard	7	1:4
49	Laying Nest	G +2 stir/nest	5	1:5
50	Egg Tray	Standard	5	1:5
51	Crate	Standard	2	1:13
E	PPE			
1	Plastic boots/shoes	Standard	25	1:1
2	Overalls	Standard	25	1:1
3	Gloves	Standard	25	1:1
4	Apron	Standard	25	1:1
5	Sun hat	Standard	25	1:1
7	Sunscreen lotion	Standard	25	1:1
8	Safety goggles	Standard	25	1:1
9	Face mask	Standard	25	1:1
10	Ear protectors	Standard	25	1:1

LEARNING MODULE 02	
TVET-PROGRAMME TITLE: Animal Production Level I	
MODULE TITLE: Identifying Animal Feed Resource and Feeding of Livestock	
MODULE CODE: AGR ANP1 M02 0422	
NOMINAL DURATION: 55 hours	
<p>MODULE DESCRIPTION : This module covers the knowledge, skills and attitudes required to identify animal feed resources and livestock feeding and also required to assess feed resource, preparing materials, tool and equipment for preparation of urea molasses block and for livestock production to maximum sustainable production.</p>	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Assess feed resources</p> <p>LO2. Prepare materials, tools and equipment</p> <p>LO3. Clean up on completion of work</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Assess feed resources</p> <ol style="list-style-type: none"> 1.1. Assessing animal feed resources 1.2. Identifying advantages and disadvantages of feed resources 1.3. Identifying feed Ingredients 1.4. Identifying feeding ways 1.5. Identifying feed problems 1.6. Assessing mixed feeds <p>LO2. Prepare materials, tools and equipment</p> <ol style="list-style-type: none"> 2.1. Selecting and checking suitable Personal Protective Equipment (PPE) 2.2. Conducting and checks on all materials, tools and equipment 2.3. Manual handling techniques 2.4. Identifying and responding of OHS hazards <p>LO3. Clean up on completion of work</p>	

- 3.1. Handling and transporting materials, equipment and machinery
- 3.2. Recycling waste material and disposing disposable materials
- 3.3. Cleaning , maintaining and storing tools and equipment
- 3.4. Reporting difficulties in completion and work outcomes

LEARNING METHODS:

- Lecture and Discussion
- Démonstrations
- Simulation
- Role playing

ASSESSMENT METHODS:

- Written test
- Oral questioning
- Practical demonstration

ASSESSMENT CRITERIA:

LO1. Assess feed resources

- Animal feed resources are assessed to meet production requirements and industry objectives
- Industrial by-products are identified according to industry requirements
- Crop and crop residues are determined according to the production plan.
- Mixed feeds are assessed according to the production plan.

LO.2. Prepare materials, tools and equipment

- The required materials, tools and equipment are identified and Prepare according to lists provided and/or supervisor's instructions.
- Checks are conducted on all materials, tools and equipment with insufficient or faulty items reported to the supervisor.
- Check correct manual handling techniques for loading and unloading materials are used to minimize damage to the load and the vehicle.
- Suitable Personal Protective Equipment (PPE) are selected and checked prior to use.
- OHS hazards are identified and responded according to OHS requirements and workplace information.

LO.3 Clean up and store materials and equipment

- Reusable Materials are returned to store and disposable material are disposed according the work instruction
- Material, Tools, equipment and machinery are cleaned, maintained, handled, transported and stored according to the industry guidelines.
- Difficulties in completion and work outcomes are reported to supervisor, feedback on performance is sought and any required improvements are noted for future action.

Annex: Resource Requirements

AGR ANP1 M02 0422 Identifying Animal Feed Resource and Feeding of Livestock				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	prepared by the trainer	25	1:1
2.	Reference Books	Tropical animal feeding, A manual for research workers, by T.R. Preston FAO, 1995.	5	1:5
		Animal feed resources for small-scale livestock producers - Proceedings of the second PANESA workshop, held in Nairobi, Kenya, 11-15 November 1985	5	1:5
3	Journals/Publication/Magazines	Standard	5	1:5
B. Learning Facilities & Infrastructure				
1.	Class room	5*10m	1	1:25
2.	Clinic/first aid provision area	6*8m	1	1:25
3.	Library	5*7.5m	1	1:25
4.	Simulation room for assessment	3*5m	1	1:25
5.	Demonstration site	5*10m	1	1:25
6.	Laboratory	5*10m	1	1:25
7.	Work shop	9*4m	1	1:25
8.	Audiovisual room	5*10m	1	1:25
9.	ICT room	7*9m	1	1:25
10.	Printing and photocopy service	Standard	1	1:25
11.	Vehicles for cooperative/practical training	Standard	1	1:25
12.	White board	1.2*1.8m	1	1:25
13.	Black board	1.2*2m	1	1:25
14.	Chalk	Dubai	1 Packet	1:25
15.	Marker	Permanent and non permanent	2 Packet	1:13
16.	A3 paper	Double A Stationary A4 paper	25 Packet	1:1
17.	A4 paper	Double A Stationary A4 paper	25 Packet	1:1
18.	Fixer with lid	HB/1.5 mm	25 Packet	1:1
19.	Stencils	Ball point	10 Pcs	1:3
20.	Toner	HP	As needed,	1:3

			10 pieces	
21.	Fastener	ACCO two-piece paper fasteners	As needed, 50 pieces	2:1
22.	UTP cable	Cat5E UTP cable	2 boxes	1:13
23.	Notice board	900 mm x 600 mm Heavy duty wooden	1	1:25
24.	Green board	China Magnetic Green Board	1	1:25
25.	T-square	Aluminum metal type	25	1:1
26.	Flip chart	Sinar Line	1	1:25
27.	Graph paper	Roll	5	1:5
28.	pencil	HB	5	1:5
29.	Drawings with specifications	Any suitable drawing	5	1:5
30.	Ruler	Mica 30 cm	25	1:1
31.	Eraser	Standard	1	1:25
32.	Duster	Wooden made	1	1:25
38.	Computer	Desktop	25 Pcs	1:1
39.	Computer table	1*2m	13 Pcs	1:2
33.	LCD projector	EB-2250U HDMI/USB/LAN	1	1:25
34.	Laptop	Core i7, RAM 8, storag1TB	1	1:25
35.	Feed store room	Concrete 5*5m	1	1:25
C.	Consumable Materials			
1.	Harvested green legumes and grasses	Improved seed variety	5 kg	1:
2.	Molasses	Standard	10 L	1:3
3.	Urea	Standard	10 kg	1:3
4.	salts	Nacl	5 kg	1:5
5.	water	fresh	10 kg	1:3
6.	cement	Standard	10 kg	1:3
7.	wheat barn	Standard	10 kg	1:3
8.	wheat short	Standard	2kg	1:13
9.	Potassium Diphosphate	Standard	1 kg	1:25
10.	Noug cake	Standard	5 kg	1:5
11.	brewery by-products	Dried	5 kg	1:5
12.	Fish meal	40% cp	1 kg	1:25
13.	Bone meal	Standard	1 kg	1:25
14.	Meat meal	Standard	1 kg	1:25
15.	Hay	20% moisture content	10 kg	1:3
16.	Wheat straw	15% moisture content	1 kg	1:25
17.	Teff straw	15% moisture content	1 kg	1:25
18.	Barley straw	15% moisture content	1 kg	1:25
19.	Maize Stover	20% moisture content	1 kg	1:25
20.	Alfalfa hay	20% moisture content	1 kg	1:25
21.	Pigeon pea leaf	Fresh as fed basis	1 kg	1:25
22.	Vetch leaf hay	15% moisture	1 kg	1:25
23.	cow pea leaf	Fresh as fed basis	5 kg	1:5
24.	Lablab leaf	Fresh as fed basis	1 kg	1:25
25.	Desmodium leaf	Fresh as fed basis	1 kg	1:25
26.	Rice bran	Standard	5 kg	1:5
27.	Line seed cake	Standard	5 kg	1:5
28.	Cotton seed cake	Standard	5 kg	1:5
29.	Maize bran	Standard	5 kg	1:5
30.	Sun flower cake	Standard	5 kg	1:5

<i>D.</i>	<i>Tools and Equipments</i>			
1.	Feederer	Plastic	10	1:3
2.	Waterers	Plastic	10	1:3
3.	Feed mixer	1000 kg per hour	10	1:3
4.	Feed bucket	Standard	10	1:3
5.	Overalls	Standard	25	1:1
6.	Nose protector	Standard	25	1:1
7.	Helmet	Standard	25	1:1
8.	Gloves	Standard	25	1:1
9.	Safety goggles	Standard	25	1:1
10.	Plastic boots/shoes	Standard	25	1:1
11.	Sunhats	Straw made	25	1:1

LEARNING MODULE 03
ATVET-PROGRAMME TITLE: Animal Production Level I
MODULE TITLE: Establishing of Pasture and Preservation of Feeds
MODULE CODE: AGR ANP1 M03 0422
NOMINAL DURATION: 60 hours
MODULE DESCRIPTION: This module describe the knowledge, skills and attitude required to establish pasture. It requires the ability to prepare and handle materials, tools and equipment, Undertake pasture establishment activities and clean up on completion of work.
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Prepare for pasture establishment</p> <p>LO2. Undertake pasture establishment</p> <p>LO3. Clean up and store materials and equipment</p> <p>LO4. Record and report work activities</p>
<p>MODULE CONTENTS:</p> <p>LO1. Prepare for pasture establishment</p> <ul style="list-style-type: none"> 1.1. Selecting and checking suitable Personal Protective Equipment 1.2. Identifying materials, tools and equipment 1.3. Manual handling techniques 1.4. Identifying OHS hazards <p>LO2. Undertake pasture establishment</p> <ul style="list-style-type: none"> 2.1. Carrying out site selection and land preparation 2.2. Undertaking pasture establishment activities 2.3. Undertaking work in a safe environment 2.4. Carrying out interactions with stakeholders 2.5. Observing policy and procedures 2.6. Observing workplace practices, handling and disposal of materials <p>LO3. Clean up and store materials and equipment</p> <ul style="list-style-type: none"> 3.1. Handling and transporting materials, equipment and machinery 3.2. Recycling waste material and disposing disposable materials 3.3. Cleaning, maintaining and storing tools and equipment <p>Lo4. Record and report activities</p> <ul style="list-style-type: none"> 4.1. Recording and documenting activities 4.2. Reporting problems or difficulties

4.3. Recording and reporting materials, tools and equipment
4.4. Reporting work outcomes
LEARNING METHODS:
<ul style="list-style-type: none"> • Lecture and Discussion • Démonstration/Practical exercise • Group work • Project work
ASSESSMENT METHODS:
<ul style="list-style-type: none"> • Written test • Oral questioning • Practical demonstration

ASSESSMENT CRITERIA:
LO.1 Prepare for pasture establishment
<ul style="list-style-type: none"> • The required materials, tools and equipment are identified. • Correct manual handling and techniques for loading and unloading materials are used to minimize damage to the load and the vehicle. • Suitable Personal Protective Equipment (PPE) are selected and checked prior to use. • OHS hazards are identified and provided according to OHS requirements and workplace information
LO.2 Undertake pasture establishment
<ul style="list-style-type: none"> • Instructions and directions provided by supervisor are followed and clarification sought when necessary. • Site selection and land preparation are carried out • Pasture establishment activities are undertaken • Work task is undertaken in a safe and environmentally appropriate manner according to workplace guidelines. • Interactions with other staff, farmers and customers are carried out in a positive and professional manner. • Enterprise or cooperative policy and procedures are observed in relation to workplace practices, handling and disposal of materials.
LO.3 Clean up and store materials and equipment

- Waste materials produced during pasture establishment work are stored in a designated area
- Materials, equipment and machinery are handled and transported according to the industry
- Re usable materials are returned to store and disposable materials are disposed and recorded according.
- Tools and equipment are cleaned, maintained and stored according to manufacturer specifications instructions.

LO.4 Record and report work activities

- Activities accomplished are recorded and documented in standard format according to workplace procedures
- Problems or difficulties in completing work to required standards or timelines are reported to supervisor
- Materials, tools and equipment damages are recorded and reported to supervisor
- Work outcomes are reported to the supervisor

Annex: Resource Requirements

AGR ANP1 M03 0422 Establishing of Pasture and Preservation of Feeds				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	<i>Learning Materials</i>			
1.	TTLM	Prepared by the trainer	25	1:1
2.	Reference Books	Forages: The Science of Grassland Agriculture, 7 th Edition, June, 2020	5	1:5
		Modern Livestock & Poultry Production, 9th, Student Edition, 2009	5	1:5
		Sheep and goat production Handbook for Ethiopia, Alemu Yami and R.C.Merkel, 2008	5	1:5
3	Journals/Publication/Magazines	Standard	5	1:5
B.	<i>Learning Facilities & Infrastructure</i>			
1.	Class room	5*10m	1	1:25
2.	Clinic/first aid provision area	6*8m	1	1:25
3.	Library	5*7.5m	1	1:25
4.	Simulation room for assessment	3*5m	1	1:25
5.	Demonstration site	5*10m	1	1:25
6.	Laboratory	5*10m	1	1:25
7.	Work shop	9*4m	1	1:25

8.	Audiovisual room	5*10m	1	1:25
9.	ICT room	7*9m	1	1:25
10.	Printing and photocopy service	Standard	1	1:25
11.	Vehicles for cooperative/practical training	Standard	1	1:25
12.	White board	1.2*1.8m	1	1:25
13.	Black board	1.2*2m	1	1:25
14.	Chalk	Dubai	1 Packet	1:25
15.	Marker	Permanent and non permanent	2 Packet	1:13
16.	A3 paper	Double A Stationary A4 paper	25 Packet	1:1
17.	A4 paper	Double A Stationary A4 paper	25 Packet	1:1
18.	Fixer with lid	HB/1.5 mm	25 Packet	1:1
19.	Stencils	Ball point	10 Pcs	1:3
20.	Toner	HP	As needed, 10 pieces	1:3
21.	Fastener	ACCO two-piece paper fasteners	As needed, 50 pieces	2:1
22.	UTP cable	Cat5E UTP cable	2 boxes	1:13
23.	Notice board	900 mm x 600 mm Heavy duty wooden	1	1:25
24.	Green board	China Magnetic Green Board	1	1:25
25.	T-square	Aluminum metal type	25	1:1
26.	Flip chart	Sinar Line	1	1:25
27.	Graph paper	Roll	5	1:5
28.	pencil	HB	5	1:5
29.	Drawings with specifications	Any suitable drawing	5	1:5
30.	Ruler	Mica 30 cm	25	1:1
31.	Eraser	Standard	1	1:25
32.	Duster	Wooden made	1	1:25
40.	Computer	Desktop	25 Pcs	1:1
41.	Computer table	1*2m	13 Pcs	1:2

33.	LCD projector	EB-2250U HDMI/USB/LAN	1	1:25
34.	Laptop	Core i7, RAM 8, storag1TB	1	1:25
C. Consumable Materials				
1.	Oats	Improved seed variety	1 Kg	1:25
2.	Rhodes grass	Improved seed variety	1 Kg	1:25
3.	phalaris grass	Improved seed variety	1 Kg	1:25
4.	Panicum grass	Improved seed variety	1 Kg	1:25
5.	Cetaria grass	Improved seed variety	1 Kg	1:25
6.	Napier grass	Improved seed variety	1 Kg	1:25
7.	Lablab	Improved seed variety	1 Kg	1:25
8.	Desmodium	Improved seed variety	1 Kg	1:25
9.	Leucaena	Improved seed variety	1 Kg	1:25
10.	Alfalfa	Improved seed variety	1 Kg	1:25
11.	Cow pea	Improved seed variety	1 Kg	1:25
12.	Peagen pea	Improved seed variety	1 Kg	1:25
13.	Vetch	Improved seed variety	1 Kg	1:25
14.	Buffel grass	Improved seed variety	1 Kg	1:25
15.	Colored Guinea grass	Improved seed variety	1 Kg	1:25
16.	Clover	Improved seed variety	1 Kg	1:25
17.	Fertilizer	Compost	125 kg	5:1
		DAP	125kg	5:1
		UREA	125kg	5:1
18.	Empty sacks		25	1:1
Tools and Equipment's				
1.	Rope	Nylon	5 Roll	1:5
2.	Meter	Plastic ½ inch	100 m	1:13
3.	Hoe	standard	5 pcs	1:5
4.	Sickle	Stainless steel (Alben type)	5 pcs	1:5
5.	Axe/hammer	Local but metallic type	5 pcs	1:5
6.	Tractor with its accessories	Standard		
7.	Combine harvester	Standard		
8.	Chopper	Standard	1 pcs	1:25



9.	Weighing scale,	Digital with >150 kg capacity	1 pcs	1:25
10.	Water pump	Standard	1	1:25
11.	watering can	Stainless steel 10 Liters capacity	5 pcs	1:5
12.	Spade	Standard	5 pcs	1:7
13.	Wheelbarrow	Standard	5 pcs	1:5
14.	Pick axe	Standard	5 pcs	1:5
15.	PPE			
16.	Plastic boots/shoes	Standard	25 pcs	1:1
17.	Overalls	Standard	25 pcs	1:1
18.	Gloves	Standard	25 pcs	1:1
19.	Apron	Standard	25 pcs	1:1
20.	Plastic boots/shoes	Standard	25 pcs	1:1
21.	Sun hat	Standard	25 pcs	1:1
22.	Sunscreen lotion	Standard	25 pcs	1:1
23.	Safety goggles	Standard	25 pcs	1:1
24.	Face mask	Standard	25 pcs	1:1
25.	Ear protectors	Standard	25 pcs	1:1

LEARNING MODULE 04	
TVET-PROGRAMME TITLE: Animal Production Level I	
MODULE TITLE: Working on Animal Welfare Requirements	
MODULE CODE: AGR ANP1 M04 0422	
NOMINAL DURATION: 35 hours	
MODULE DESCRIPTION: This module covers the knowledge, skills and attitude required to comply with industry animal welfare requirements in the production of livestock that requires the ability to guide animal welfare practices, follow standard operating procedures and report problems that affect animal welfare.	
LEARNING OUTCOMES	
At the end of the module the trainee will be able to:	
LO1. Participate in animal welfare practices	
LO2. Follow standard operating procedures	
LO3. Report problems that affect animal welfare	

MODULE CONTENTS:

LO1. Participate in animal welfare practices

- 1.1 Determining elements of animal welfare requirements
- 1.2 Identifying animal welfare hazards
- 1.3 Determining critical control points for work area
- 1.4 Completing record keeping on animal welfare and quality products

LO2. Follow standard operating procedures

- 2.1 Applying animal welfare legislation and codes of practice
- 2.2 Implementing standard operating procedures
- 2.3 Reporting non-conformance requirements
- 2.4 Taking corrective action

LO3. Report problems that affect animal welfare

- 3.1 Recognizing potential or existing animal welfare
- 3.2 Identifying problems of animal welfare
- 3.3 Reporting variation and potential problems

LEARNING METHODS:

- Lecture and Discussion
- Demonstration
- Role playing
- Project work
- Audio visual

ASSESSMENT METHODS:

- Written test(Quiz)
- Oral questioning
- Practical demonstration
- Move exam

ASSESSMENT CRITERIA:

LO.1 Participate in animal welfare practices

- Elements of the industry animal welfare requirements are determined according to enterprise guidelines
- Hazards to animal welfare are identified for work area according to enterprise guidelines and standard operating procedures.
- Critical control points for work area are determined according to workplace procedures.
- Record keeping on animal welfare and quality products are completed according to industry Quality Assurance (QA) requirements.

LO.2 Follow standard operating procedures

- Standard operating procedures in respect to animal welfare requirements are implemented in accordance with enterprise requirements.
- Non-conformance is reported to supervisor according to enterprise/industry requirements.
- Corrective action is taken in accordance with enterprise policy and procedures.

LO.3 Report problems that affect animal welfare

- Potential or existing animal welfare is recognized according to enterprise guidelines.
- Instances of problems of animal welfare are identified from specifications or work instructions.
- Variation and potential problems are reported to supervisor/ manager according to enterprise guidelines

Annex: Resource Requirements

<u>AGR ANP1M 04 0422</u> Work on Animal Welfare Requirements				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	Prepared by the trainer	25	1:1
2.	Reference Books	Harnessing and Implements book for Animal Traction, Paul Starkey, 1989-245 pages by <i>Clive Phillips</i> 1st ed. 2009 Edition.	5	1:5
		Animal Welfare Book, 5 th edition, 2012	5	1:5
3	Journals/Publication/Magazines		5	1:5
B. Learning Facilities & Infrastructure				
1.	Class room	5*10m	1	1:25
2.	Clinic/first aid provision area	6*8m	1	1:25
3.	Library	5*7.5m	1	1:25
4.	Simulation room for assessment	3*5m	1	1:25
5.	Demonstration site	5*10m	1	1:25
6.	Laboratory	5*10m	1	1:25
7.	Work shop	9*4m	1	1:25
8.	Audiovisual room	5*10m	1	1:25
9.	ICT room	7*9m	1	1:25
10.	Printing and photocopy service	Standard	1	1:25

11.	Vehicles for cooperative/practical training	Standard	1	1:25
12.	White board	1.2*1.8m	1	1:25
13.	Black board	1.2*2m	1	1:25
14.	Chalk	Dubai	1 Packet	1:25
15.	Marker	Permanent and non permanent	2 Packet	1:13
16.	A3 paper	Double A Stationary A4 paper	25 Packet	1:1
17.	A4 paper	Double A Stationary A4 paper	25 Packet	1:1
18.	Fixer with lid	HB/1.5 mm	25 Packet	1:1
19.	Stencils	Ball point	10 Pcs	1:3
20.	Toner	HP	As needed, 10 pieces	1:3
21.	Fastener	ACCO two-piece paper fasteners	As needed, 50 pieces	2:1
22.	UTP cable	Cat5E UTP cable	2 boxes	1:13
23.	Notice board	900 mm x 600 mm Heavy duty wooden	1	1:25
24.	Green board	China Magnetic Green Board	1	1:25
25.	T-square	Aluminum metal type	25	1:1
26.	Flip chart	Sinar Line	1	1:25
27.	Graph paper	Roll	5	1:5
28.	pencil	HB	5	1:5
29.	Drawings with specifications	Any suitable drawing	5	1:5
30.	Ruler	Mica 30 cm	25	1:1
31.	Eraser	Standard	1	1:25
32.	Duster	Wooden made	1	1:25
33.	Computer	Desktop	25 Pcs	1:1
34.	Computer table	1*2m	13 Pcs	1:2
35.	LCD projector	EB-2250U HDMI/USB/LAN	1	1:25
36.	Laptop	Core i7, RAM 8, storag1TB	1	1:25
C.	Consumable Materials			

1	Savlon	Standard	1 liter	1:25
2	Alcohol	75 % concentrate	2 liter	1:12
3	Feed	Roughage	5 kg	1:5
		Concentrate	5kg	1:5
5	Bandage	Sterilized	2 roll	1:13
<i>D. Tools and Equipment</i>				
1.	Burdizzo	Stainless steal	2Pcs	1:13
2	Hoof Trimmer	Stainless steel	2 Pcs	1:13
3	Hobble	Cotton	5 Pcs	1:5
4	Pad	Cotton	5 Pcs	1:5
5	Trocar And Canula	Stainless steel	2 Pcs	1:13
6	Halter and bridle	Steeliness steal	2 Pcs	1:13
7	Light	Standard	5	1:5
8	House	Standard	1	1:25
9	Animal	Sheep and goat	1	1:25
10	Animal	Cattle	1	1:25
11	Balling Gun	Standard	2	1:12
9	Drenching Gun	Standard	2	1:12
10	Wither Yoke	Standard	1	1:25
11	Saddle	Standard	2	1:13
12	Neck band	Standard	2	1:13
13	Phantom with cart	Standard	1	1:25

LEARNING MODULE 05

TVET-PROGRAMME TITLE: Animal Production Level I

MODULE TITLE: Handling and Preserving Hide and Skin

MODULE CODE: AGR ANP1M 05 0422

NOMINAL DURATION: 40 hours

MODULE DESCRIPTION: This module covers the knowledge, skills and attitude required in handling and preserving of hide and skin. It requires the ability to prepare materials, tools and equipment, care for hide and skin on live animal, handle, preserve, sort and grade hide and skin and clean up on completion of work.

LEARNING OUTCOMES

At the end of the module the trainee will be able to:

- LO1. Care for hide and skin on live animal**
- LO2. Prepare hide and skin for preservation**
- LO3. Undertake sorting and grading of hide and skin**
- LO4. Clean up on completion of work**

MODULE CONTENTS:

LO1. Care for hide and skin on live animal

- 1.1. Protecting bruising
- 1.2. Preventing external parasitic infestation
- 1.3. Restraining animals
- 1.4. Slaughtering of animals

LO2. Prepare Hide and Skin for Preservation

- 2.1. Determining site selection
- 2.2. Methods of hide and skin preservation
- 2.3. Preservation materials and equipment
- 2.4. Carrying out preservation of hide and skin

LO3. Undertake sorting and grading of hide and skin

- 3.1. Using of PPE
- 3.2. Carrying out sorting and grading hide and skin
- 3.3. Transportation of hide and skin
- 3.4. Observing sanitary procedures
- 3.5. Identifying OHS hazards and taking appropriate action
- 3.6. Selecting materials, equipment and machinery for transportation

LO4. Clean up on completion of work

- 4.1. Storing the preserved hide and skin
- 4.2. Cleaning , maintaining and storing tools and equipment
- 4.3. Returning reusable materials to store
- 4.4. Disposing disposable material and waste products
- 4.5. Reporting work outcomes

LEARNING METHODS:

- Lecture and Discussion
- Démonstration/Praticable exercices
- Rôle plain
- Vidéo show

ASSESSMENT METHODS:

- Written test
- Oral questioning
- Group work
- Practical demonstration
- Interview
- Observation

ASSESSMENT CRITERIA:

LO. Care for hide and skin on live animal

- Bruising of hide and skin is protected to meet production plan according to industry objective
- External parasitic infestation is prevented according to enterprise industry requirements.
- Restraining of animals should be carried out carefully to prevent hide and skin damage to meet production plan
- Appropriate slaughtering procedure is used and carried out according to industry requirements.

LO.2 Prepare hide and skin for preservation

- Appropriate site selection is determined according to legislation requirements
- Appropriate methods of preservation for hide/skin are selected according to enterprise industry objectives.
- Preservation materials and equipment are prepared appropriately.
- Preservation is carried out according to enterprise procedures
- Work task is undertaken in a safe and environmentally appropriate manner according to enterprise guidelines

LO.3 Undertake sorting and grading of hide and skin

- Sorting and grading are carried out according to industry procedures
- Any OHS hazards are identified and appropriate action is taken according to industry policy and OHS legislation and codes.
- PPE and clothing are used in accordance to enterprise guidelines
- Sanitary procedures are observed based on industry standard
- Materials, equipment and machinery are selected for transportation according to supervisor's instructions and industry guidelines.

LO.4 Clean up on completion of work

- The preserved hide or skin is properly stored until transporting according to supervisor's instruction.
- Reusable materials are returned to store or disposable materials are disposed of according to supervisor's instructions.
- Tools and equipment are cleaned, maintained and stored according to manufacturer's specifications and supervisor's instructions.
- All waste products are disposed of according to industry procedures.
- Work outcomes are reported to the supervisor.

Annex: Resource Requirements

AGR ANP1 M05 0422 Handling and Preserving Hide and Skin				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	Prepared by the trainer	25	1:1
2	Reference Books	Sheep and Goat Production Handbook for Ethiopia, Edited by Alemu Yami and R.C. Merkel, 2008.	5	1:5
		Training Manual for Hygienic and Sanitary Slaughter of Small Ruminants, Prepared by: Dr. Linnette Murray-Peters, DVM, MVSc, MPH	5	1:5
3	Journals/Publication/Magazines		5	1:5
B. Learning Facilities & Infrastructure				
1.	Class room	5*10m	1	1:25
2.	Clinic/first aid provision area	6*8m	1	1:25
3.	Library	5*7.5m	1	1:25
4.	Simulation room for assessment	3*5m	1	1:25
5.	Demonstration site	5*10m	1	1:25
6.	Laboratory	5*10m	1	1:25
7.	Work shop	9*4m	1	1:25
8.	Audiovisual room	5*10m	1	1:25
9.	ICT room	7*9m	1	1:25
10.	Printing and photocopy service	Standard	1	1:25
11.	Vehicles for cooperative/practical training	Standard	1	1:25
12.	White board	1.2*1.8m	1	1:25
13.	Black board	1.2*2m	1	1:25
14.	Chalk	Dubai	1 Packet	1:25
15.	Marker	Permanent and non permanent	2 Packet	1:13
16.	A3 paper	Double A Stationary A4 paper	25 Packet	1:1
17.	A4 paper	Double A Stationary A4 paper	25 Packet	1:1
18.	Fixer with lid	HB/1.5 mm	25 Packet	1:1
19.	Stencils	Ball point	10 Pcs	1:3
20.	Toner	HP	As needed, 10 pieces	1:3
21.	Fastener	ACCO two-piece paper fasteners	As needed, 50 pieces	2:1
22.	UTP cable	Cat5E UTP cable	2 boxes	1:13
23.	Notice board	900 mm x 600 mm Heavy duty wooden	1	1:25

24.	Green board	China Magnetic Green Board	1	1:25
25.	T-square	Aluminum metal type	25	1:1
26.	Flip chart	Sinar Line	1	1:25
27.	Graph paper	Roll	5	1:5
28.	pencil	HB	5	1:5
29.	Drawings with specifications	Any suitable drawing	5	1:5
30.	Ruler	Mica 30 cm	25	1:1
31.	Eraser	Standard	1	1:25
32.	Duster	Wooden made	1	1:25
33.	Computer	Desktop	25 Pcs	1:1
34.	Computer table	1*2m	13 Pcs	1:2
35.	LCD projector	EB-2250U HDMI/USB/LAN	1	1:25
36.	Laptop	Core i7, RAM 8, storag1TB	1	1:25
37.	Fish pond	Concrete 10*20m	1	1:25
38.	Slaughter house (abattoir)	20*30m	1	1:25
39.	Store	Standard	1	1:25
40.	Dirt pit	Concrete by 4*6 M ²	1	1:25
41.	Ware house	15*15m	1	1:25
42.	Dirt bin	Concert 4*6m	1	1:25
43.	Pit to burn left over	10*10	1	1:25
C. Consumable Materials				
1	Salt	Nacl	25kg	1:1
2	Brining	Salt solution	25L	1:1
3	Clean water			
4	Detergents	Solid Soap	25	1:1
		Liquid soap	25L	1:1
5	Chemical	Alcohol	5L	1:5
		Formalin	5L	1:5
D. Tools and Equipments				
1	Rope			
3	Materials to construct frames	wood	10	1:25
		7 cm	1 pack	1:25
		8 cm	1 pack	1:25
4	Hammer	Stainless steel	2	1:13
5	Saw	Stainless steel	2	1:13
6	Trimming and washing table	Standard	5	1:5
8	Cleaning brush	Standard	5	1:5
9	Rubber hose	Standard	1(50 m)	1: 25
10	Covering materials	Standard	5	1:5
11	Jar	Standard	5	1:5
12	Barrel	Standard	5	1:5
13	Air drying frame	Standard	5	1:5
14	Knives	Standard	5	1:5
15	Animals	Cattle	2	1:13
		Sheep	5	1:5
		Goat	5	1:5
16	Slaughter slab	Standard	5	1:5

17	Hoist	Standard	1	1:25
18	Fixed frames	Standard	6	1:5
19	Movable frames	Standard	6	1:5
20	Rake	Standard	5	1:5
21	Axe	Stainless Steel	5	1:5
E	PPE			
1	Plastic boots/shoes	Standard	25	1:1
2	Overalls	Standard	25	1:1
3	Gloves	Standard	25	1:1
6	Sun hat	Standard	25	1:1
7	Sunscreen lotion	Standard	25	1:1
8	Safety goggles	Standard	25	1:1
9	Face mask	Standard	25	1:1
10	Ear protectors	Standard	25	1:1

LEARNING MODULE 06
TVET-PROGRAMME TITLE: Animal Production Level I
MODULE TITLE: Applying Agricultural Extension
MODULE CODE: AGR ANP1 06 0322
NOMINAL DURATION: 48 Hours
MODULE DESCRIPTION: This module covers the knowledge, skills and attitudes required to understand the Concept and evolution of agricultural Extension, apply extension methods and Approaches, apply Agricultural extension Communication and facilitation for technology promotion, Conduct training and record and document data.
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <ul style="list-style-type: none"> LO1. Understand the Concept and Evolution of Agricultural Extension LO2. Apply Extension Methods and Approaches LO3. Apply Agricultural Extension Communication and Facilitation for Technology Promotion LO4. Conduct Training LO5. Record and Document Data

MODULE CONTENTS:

LO1. Understand the Concept and evolution of Agricultural Extension

- 1.1. The concept of Agricultural extension
- 1.2. The evolution and progress of agricultural extension
- 1.3. The role of extension in agricultural development
- 1.4. The importance of Agricultural extension
- 1.5. Extension planning

LO2. Apply Extension methods and Approaches

- 2.1. Extension methods
- 2.2. Extension approaches
- 2.3. The importance of extension methods and approaches
- 2.4. Applying appropriate extension methods and approaches

LO3. Apply Agricultural Extension Communication and Facilitation for technology promotion

- 3.1. The concept, principle and type of communication
- 3.2. Identifying, understanding and solving communication barriers,
- 3.3. Elements of communication
- 3.4. Audio visual techniques
- 3.5. Roles and characteristics of extension communicator
- 3.6. The basic concept of facilitation
- 3.7. Roles and responsibilities of a facilitator
- 3.8. Conflict resolution skills
- 3.9. The skills of a facilitator

LO4. Conduct Training

- 4.1. Conducting needs assessment
- 4.2. Carrying-out preparation
- 4.3. Conducting the implementation training
- 4.4. Carrying out Evaluation

LO5. Record and Document Data

- 5.1. Developing data collecting formats
- 5.2. Collecting and organizing appropriate data
- 5.3. Documenting and reporting collected and organized data

LEARNING METHODS:

- Lecture and Discussion
- Demonstration
- Simulation
- Role playing

ASSESSMENT METHODS:

- Quiz, Written test, Oral questioning, Written exam
- Individual and group assignment
- Practical demonstration

ASSESSMENT CRITERIA:

LO.1. Understand the Concept and evolution of Agricultural Extension

- The concept of Agricultural *extension* is understood to gain relevant knowledge
- The evolution and progress of agricultural extension is expressed to understand the concept of Agricultural Extension
- The role of extension in agricultural development is understood to deliver effective extension services
- The importance of Agricultural extension is determined to have appropriate knowledge,
- Extension planning is understood to determine extension activities

LO.2 Apply Extension methods and Approaches

- Extension methods are understood to provide Extension services based on organizational standard, extension systems, extension strategy and extension guide lines
- Extension approaches are understood for implementation of extension services
- The importance of extension methods and approaches are understood for Agricultural extension service delivery
- Appropriate extension methods and approaches are applied to transfer agricultural technologies, based on organizational standard, extension systems, extension strategy and extension guide lines,

LO.3. Apply Agricultural Extension Communication and Facilitation for technology promotion

- The concept, principle and type of communication is understood to have good extension communication knowledge & skill
- Communication barriers are identified, understood and solved to undertake effective communication
- Elements of extension communication are defined and used to create positive environment for communication
- Audio visual techniques are understood to provide Agricultural Extension and communication delivery services
- Roles and characteristics of extension communicator are recommended to improve the communicator's performance
- The basic concept of facilitation is understood to improve facilitation skills
- The roles and responsibilities of a facilitator is applied to progress facilitation skills
- Conflict resolution skill is understood to enhance homogeneity

- Need assessment is conducted to provide appropriate training

Annex: Resource Requirements

AGR ANH1 M07 0422 Applying Agricultural Extension Service				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	TTLM prepared by the trainer	25 pcs	1:1
2.	Reference Books			
2.1	Rural Extension: Basic Issues and Concepts	Hoffman, V., <i>et al.</i> 2009. Vol. I 3 rd edition	5 pcs	1:5
2.2	Rural Extension: Basic Issues and Concepts	Hoffman, V., <i>et al.</i> 2009. Vol. II 3 rd edition	5 pcs	1:5
2.3	Rural Extension: Basic Issues and Concepts	Hoffman, V., <i>et al.</i> 2009. Vol. III 3 rd edition	5 pcs	1:5
2.4	Communication for Rural Innovation	Lewis, C., 2004 3 rd edition	5 pcs	1:5
2.5	Concepts and Practices in Agricultural Extension in Developing Countries: A Source Book	Ananadayasekeram, P., <i>et al.</i> 2008.	5 pcs	1:5
2.6	Agricultural Extension in Developing Countries	Adams M. E., 1992	5 pcs	1:5
2.7	Agricultural Extension	FAO, ...	5 pcs	1:5
3.	Journals/Publication/Magazines			1:5
	- Sustainable Agricultural Extension Manual for Eastern and Southern Africa	IIRR, 1998	5 pcs	1:5
B. Learning Facilities and Infrastructure				

1.	Lecture Room	7 m* 8m		1:25
2.	Library	1.7m ² per trainee		
3.	Audio Visual Center		1	1:25
4.	Smart Class*		1	1:25
	<ul style="list-style-type: none"> • A DVD/VHS combination, RCA video and audio input cable, Laptop VGA and audio input cable and network connectivity 			
C.	Consumable Materials			
1.	Stationary Paper	Paper, Pen, Pencil, Chalk, Duster, Duster, Marker, Flip Chart		As required
D.	Tools and Equipment			
1.	Audio and Video recorder		1 pcs	1:25
2	Computer		25 pcs	1:1
3	LCD		1 pcs	1:25
4	Whiteboard		1 pcs	1:25
5	Blackboard		1 pcs	1:25
6	Flip Chart Stand		1 pcs	1:25
7	Projection Screen		1 pcs	1:25

LEARNING MODULE 07	
TVET-PROGRAMME TITLE: Animal Production Level I	
MODULE TITLE: Implementing Agribusiness Marketing	
MODULE CODE: AGR ANP1 07 0322	
NOMINAL DURATION: 40 hours	
<p>MODULE DESCRIPTION : This module covers the knowledge, skills and attitude required to Understand concept of agricultural marketing Understand concepts of agribusiness Identify marketing targets for Agricultural products Implement marketing strategy. Establish contract farming, and Apply Agricultural marketing services.</p>	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Understand concept of agricultural marketing</p> <p>LO2. Understand concepts of agribusiness</p> <p>LO3. Identify marketing targets for Agricultural products</p> <p>LO4. Implement marketing strategy</p> <p>LO5. Establish contract farming</p> <p>LO6. Apply Agricultural marketing services</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Understand concept of agricultural marketing</p> <p>1.1. Concept of agricultural marketing</p> <p>1.2. Importance of agricultural marketing</p> <p>1.3. Roles of agricultural market</p> <p>1.4. Principles of agricultural marketing</p> <p>1.5. Marketing mix</p> <p>1.6. Types of market structure</p> <p>LO2. Understand concepts of agribusiness</p> <p>1.1. Concept of agribusiness</p> <p>2.1 Importance of agribusiness</p> <p>2.2 Roles of agribusiness</p> <p>2.3 Principles And Characteristic of agribusiness</p> <p>1.4 Dimension and structures of Agribusiness</p> <p>LO3. Identify marketing targets for agricultural products</p>	

- 3.1. Marketing strategy
- 3.2. Approaches of agricultural market
- 3.3. Market Segment descriptors
- 3.4. Agricultural marketing options
- 3.5. Marketing plan
- 3.6. Analyzing cost and benefit

LO4. Implement marketing strategy

- 4.1. Agricultural marketing functions strategy
- 4.2. Preparing marketing Action plan
- 4.3. Resource for agricultural marketing

LO 5. Establish contract farming

- 5.1. Concept of contract farming
- 5.2. Types of contract farming
- 5.3. Models of Contract farming
- 5.4. Steps and procedures of contract farming
- 5.5. Contract farming requirements
- 5.6. Contract farming systems

LO6. Apply agricultural marketing services

- 6.1. Types of Agricultural products
- 6.2. Conducting Need assessment
- 6.3. Develop Market strategies

LEARNING METHODS:

- Lecture and Discussion
- Demonstration
- Simulation
- Roleplaying

ASSESSMENT METHODS:

- Written test with Oral questioning
- Practical demonstration
- Project

ASSESSMENT CRITERIA:

LO.1 Create awareness about cooperative

- Concept of agricultural marketing is understood for Agricultural marketing
- Importance of agricultural marketing is understood to provide agricultural marketing services
- Roles of agricultural market-oriented service is identified and understood
- Principles of agricultural marketing and strategies are identified and understood
- Marketing mix is understood to implement agricultural marketing activities
- Types of marketing are understood and identified to implement the appropriate marketing services

LO. 2. Understand concepts of agribusiness

- Concept of agribusiness is understood for Agricultural marketing
- Importance of agribusiness is understood to provide agribusiness services
- Roles of agribusiness-oriented service is identified and understood
- Principles of agribusiness and strategies are identified and understood
- Characteristic of Agribusiness are understood to implement Agribusiness
- Dimension and structures of Agribusiness are understood and distinguished

LO.3. Identify marketing targets for agricultural products

- Marketing targets are identified for Agricultural products and services
- Approaches of agricultural market are understood for agricultural market product and service
- Segment descriptors are used to display the targets of agricultural market
- Strategic of agricultural marketing options are identified to develop agricultural marketing plan
- Business plans are prepared to perform cost and benefit analysis.

LO.4 Implement marketing strategy

- Agricultural marketing functions strategy is designed to perform agriculture business.
- Action plan is developed to implement Agricultural marketing strategies.
- Require resource are identified and coordinated to implement agricultural marketing
- Marketing mix is implemented according to the strategy Agricultural.

LO. 5. Establish contract farming

- Concept of contract farming
- Types of contract farming
- Models of Contract farming
- Steps and procedures of contract farming establishments
- Contract farming requirements
- Contract farming systems

Annex: Resource Requirements

AGR CAA1 M04 0422 Implement Agribusiness Marketing				
Item No.	Category/Item	Description/ Specifications	Qty.	Recommended Ratio (Item: Trainee)
A. Learning Materials (Disability inclusive learning guide)				
1.	TTLM	prepared by trainer/ Ministry of Labor and skill	25 Pcs	1:1
2.	Reference Books			
2.1.	Rural marketing	RAVINDRANATH V BADI, (2015). <i>Rural marketing</i> . 3 rd ed	10 Pcs	1:5
2.2.	Basic marketing	WILLIAM D. (2005) <i>Basic marketing</i> . 15th	5 Pcs	1:5
2.3.	Applications in basic marketing	WILLIAM D. (2006) <i>Applications in basic marketing</i>	5pcs	1:5
2.4.	Economics applications to agriculture and agribusiness	RANDAI D, (1997) <i>Economics applications to agriculture and agribusiness</i> . 4 th .ed.	5psc	1:5
2.5.	Agribusiness management and entrepreneurship	MICHAEL E, (1994) <i>Agribusiness management and entrepreneurship</i> 3 rd . ed		
3.	Journals/Publication/Magazines	Published/unpublished	5 Pcs	1:5
B. Learning Facilities & Infrastructure				
1.	Lecture room	1.2*25	1	1:25
2.	Cooperative lab/ business incubation center	105 – 180 m2 area Needed Per Trainee		
3.	Library	105 – 180 m2 area Needed Per Trainee	1	1:25
4.	Instructional Audio video	Library/classroom location	It depends	1:1

5.	Visual training Media	LCD, Laptops	1 Pcs	1:25
6.	Teaching boards	White board ,Flip chart ,Smart board	1 Pcs	1:25
7.	Arm chair	54Cm *72 Cm *100Cm	25 Pcs	1:1
8.	Notice board	150*100 Cm	1 Pcs	1:25
9.	White board	240 Cm *120 Cm	1 Pcs	1:25
C	Consumable material			
1.	White board and permanent marker		4 Pc	1:2
2.	Flip chart		5 Pcs	1:5
3.	Tools and equipment			
4.	Computer	Desktop	13Pcs	1:2
5.	Printer	A4 size	1 Pcs	1:25
6.	Computer table	1*0.75 m	9 Pcs	1:5
7.	Shelves	1.5*1 m	2 Pcs	1:13

LEARNING MODULE 08
TVET-PROGRAMME TITLE: Animal Production Level I
MODULE TITLE: Applying Basics of Human Nutrition Practices
MODULE CODE: AGR ANP1 08 0322
NOMINAL DURATION: 48 hours
MODULE DESCRIPTION: This module covers the knowledge, skill and attitude required to categorize agricultural foods items, recognize malnutrition in the community, identify the role of agriculture in nutrition and contribute to the awareness creation of the community in utilization of agricultural products.
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Identify Categories of agricultural foods items</p> <p>LO2. Recognize malnutrition in the community</p> <p>LO3. Identify the role of agriculture in nutrition</p> <p>LO4. Demonstrate diversified Agricultural food production and consumption techniques</p> <p>LO5. Perform proper handling and storage of agricultural food products</p> <p>LO6. Document and report food production, consumption and difficulties</p>

MODULE CONTENTS:

LO.1: Identify Categories of agricultural foods items

- 1.1. Basic terminologies and concepts in nutrition
- 1.2. Identifying and explaining food sources, their categories and nutritional content
- 1.3. Identification of Energy dense and nutrient dense food stuffs

LO.2 : Recognize malnutrition in the community

- 2.1 Physical signs of malnutrition
- 2.2 Forms, causes and consequences of malnutrition in the community
- 2.3 Identifying measures taken in maintaining and promoting balanced diet
- 2.4 Recognizing contributions done to create community awareness

LO.3: Identify the role of agriculture in nutrition

- 3.1. The role of agriculture as source of variety foods
- 3.2. Agricultural sector in nutrition sensitive intervention
- 3.3. Identifying nutrition sensitive agricultural practices

LO.4: Demonstrate diversified Agricultural food production and consumption techniques

- 4.1. The importance of diet diversification
- 4.2. Techniques of diversifying food production
- 4.3. Implementing the techniques of enhancing nutrient content
- 4.4. Cooking techniques for specific agricultural products
- 4.5. Preparation of balanced and nutrient dense diet

LO5: Perform proper handling and storage of agricultural food products

- 5.1. Importance of hygiene for nutrition
- 5.2. Construction of food storage facilities
- 5.3. Methods for Safe handling and storage of agricultural products
- 5.4. Demonstration of Safe handling and storage of agricultural products

LO6: Document and report food production, consumption and difficulties

- 6.1. Documenting diversified food production and consumption activities
- 6.2. Reporting difficulties in production and consumption of diversified agricultural food products

LEARNING METHODS:

- Brainstorming
- Answer and questionne
- Lecture and Discussion
- Démonstration
- Field visits
- Audio Visual
- Project work

ASSESSMENT METHODS:

- Written test
- Oral questioning
- Practical demonstration
- Project work

ASSESSMENT CRITERIA:

LO.1: Identify Categories of agricultural foods items

- Basic terminologies and concepts in nutrition are identified and explained
- Food groups, nutrient and their sources of balanced diet are identified and explained
- Origin and composition of food stuffs are identified and described
- Energy dense and nutrient dense food sources are identified and explained

LO.2: Recognize malnutrition in the community

- Physical signs of malnutrition are identified and explained
- Forms, causes and consequences of malnutrition in different groups of community are identified
- Measures to overcome malnutrition, importance of maintenance of adequate and balanced diet are promoted
- Contribution is made in elders, family heads and women awareness creation programs

LO.3: Identify the role of agriculture in nutrition

- The role of agriculture as source of variety foods is recognized and promoted
- The contribution of agriculture sector in nutrition sensitive intervention is described
- Nutrition sensitive agricultural practices are identified and communicated as per the nutrition program guideline

LO.4: Demonstrate diversified Agricultural food production and consumption techniques

- Importance of diet diversification is identified and discussed with family holds and community according to the program guideline
- Techniques of diversified food production are identified and demonstrated to farmers and family members
- Techniques of enhancing the nutrient content of family foods are assessed and implemented according to the program guideline and cultural requirements of the rural community
- Utensils are identified and cooking techniques demonstrated for specific agricultural products
- PPE are selected and used in accordance to OHS requirement and code of ethics
- Balanced and nutrient dense diet preparation is demonstrated using food stuff ingredients

LO.5: Perform proper handling and storage of agricultural food products

- Importance of hygiene for nutrition is explained
- Storage facilities are identified and family holds supported in construction.
- Agricultural products are safely handled and stored
- Methods and techniques of safely handling and storing agricultural products are demonstrated in accordance products requirement

- Difficulties happened in the processes are reported to the respective authorities

Annex: Resource Requirements

AGR ANH1 M09 0422: Applying Basics of Human Nutrition Practices				
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	<i>Learning Materials</i>			
1.	TTLM	TTLM prepared by the trainer	25	1:1
2.	Reference books		6	1:4
2.1	Effects of total fat intake on body weight	Hooper L, Abdelhamid A, Bunn D, Brown T, Summerbell CD, Skeaff CM, 2015	5 pcs	1:5
2.2	Diet, nutrition and the prevention of chronic diseases	Report of a Joint WHO/FAO Expert Consultation. WHO Technical Report Series, No. 916. Geneva: World Health Organization; 2003	5 pcs	1:5
2.3	Fats and fatty acids in human nutrition: report of an expert consultation	FAO UN, 2010	5 pcs	1:5
2.4	WHO scientific update on health consequences of trans fatty acids: introduction.	Nishida C, Uauy R., 2009 , update on European journal of Nutrition	5 pcs	1:5
3.	Guideline and manuals			
3.1	National Nutrition Sensitive Agriculture Strategy	Federal Democratic Republic of Ethiopia 2017 Addis Ababa, Ethiopia	3 pcs	1:8
3.2	National Nutrition Sensitive Agriculture Training Manual for Agricultural Development Agents	Ministry of Agriculture, Addis Ababa, 2018	3 pcs	1:8
3.3	Agricultural food source handling	Prepared by Ethiopian agricultural research centers, ILRI, Universities and colleges	3 pcs	1:8
4	Food preparation	online		

4.1	All Current Publications Paper	USU, "Food Preparation Manual Meats, 2005; https://digitalcommons.usu.edu/extension_cura/11/1118		1:1
4.2	<u>Food Safety First Manual</u>	www.fsafood.com/main/libraries/documents/food_safety_first_manual.sflb.ashx	3	1:8
5	Audio Visual (video-audio), Television channel	kitchen operating procedures (Jordanian ketch show)	1	1:25
6	Journals/Publication/Magazines	Prepared by WHO and FAO journals/Online and printed	6	1:4
B. Learning Facilities and Infrastructure				
1.	Lecture room	7m*8m		1:25
2	Library	105 – 180 m2 area Needed Per Trainee		1:25
3	Workshop	4m*25m		1:25
4	Well-equipped Computer Room	7m*8m		1:25
5	Kitchen	in the hotel		1:25
6	Food storage area	In the food storage Warehouse,		1:25
7	Vehicle	bus		1:25
8	White board	240 Cm *120 Cm		1:25
C. Consumable Materials				
1.	Stationary materials	Pens, paper, pencils/ Marker, Chalk	2Packs/1 Gross	As required
2	Different types of food stuff	Energy source	12kg	1:2
		Protein source (crops, meat, egg, milk)	12 kg/1	1:2
		Oils	2 ltr	1:13
		Mineral and vitamin sources	4 kg	1:6
		spices	1 pack	1:25
3	Cleansing materials and lotions	Liquid soap and paraffin	1 ltr	1:25
D. Tools and Equipment				
1.	Kitchen kits	Stainless steel	1	1:25
2	Electronic devices	Lap top computer, Camera, smart phones, speaker, microphone	1	1:25
3	Projector and projector screen		1	1:25

LEARNING MODULE 09	
TVET-PROGRAMME TITLE: Animal production Level I	
MODULE TITLE: Applying 5S Procedures	
MODULE CODE: AGR ANP1 M09 0422	
NOMINAL DURATION: 45 hours	
<p>MODULE DESCRIPTION : This module covers the knowledge, skills and attitude required to apply 5S techniques to his/her workplace. It covers responsibility for the day-to-day operations of the workplace and ensuring that continuous improvements of kaizen elements are initiated and institutionalized.</p>	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Prepare for work</p> <p>LO2. Sort items.</p> <p>LO3. Set all items in order.</p> <p>LO4. Perform shine activities.</p> <p>LO5. Standardize 5S.</p> <p>LO6. Sustain 5S.</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Prepare for Work</p> <p>1.1. Using work instructions</p> <p>1.2. Reading and interpreting job specifications</p> <p>1.3. Observing OHS requirements</p> <p>1.4. Preparing and using equipment</p> <p>1.5. Identifying and checking safety equipment and tools</p> <p>1.6. Preparing and using kaizen Board</p> <p>LO2. Sort Items</p> <p>2.1 Preparing plan</p> <p>2.2 Performing cleaning activities</p> <p>2.3 Identifying all items in the workplace</p> <p>2.3.1. Tools</p> <p>2.3.2. Jigs/Fixtures</p> <p>2.3.3. Materials/components</p> <p>2.3.4. Machine and equipment</p>	

2.3.5. Manuals

2.3.6. Documents

2.4 Listing necessary and unnecessary items

2.5 Using Red tag strategy

2.6 Evaluating and placing unnecessary items

2.7 Recording and quantifying necessary items

2.8 Reporting performance results

2.9 Checking the necessary items

LO3. Set All Items in Order

3.1 Preparing plan.

3.2 Performing cleaning activities

3.3 Deciding location/layout, storage and indication methods

3.4 Preparing and using necessary tools and equipment.

3.5 Placing items in their assigned locations

3.6 Returning the items after use

3.7 Reporting performance results

3.8 Checking each item regularly

LO4. Perform Shine Activities.

4.1 Preparing plan

4.2 Preparing and using necessary tools and equipment

4.3 Implementing shine activity

4.4 Reporting performance results.

4.5. Conducting regular shining activities.

LO5. Standardize.

5.1. Preparing and using plan.

5.2. Preparing and implementing tools and techniques

5.3. Following checklists and report

5.4. Keeping workplace

5.5. Avoiding the problems

LO6. Sustain.

6.1. Preparing and following plan

6.2. Discussing, preparing and implementing tools and techniques

6.3. Inspecting the workplace specified standard

6.4. Cleaning up workplace

- 6.5. Identifying the situations and actions specified
- 6.6. Recommending improvements
- 6.7. Following checklists
- 6.8. Avoiding problems by sustaining activities.

ASSESSMENT CRITERIA:

LO1. Prepare for work

- The work instructions are used to determine job requirements, including method, material and equipment
- Job specifications are read and interpreted following working manual.
- OHS requirements, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work.
- Tools and equipment are prepared and used to implement 5S.
- Safety equipment and tools are identified and checked for safe and effective operation.
- Kaizen Board (Visual Management Board) is prepared and used in harmony with different workplace contexts.

LO.2 Sort items

- Plan is prepared to implement sorting activities.
- Cleaning activities are performed.
- All items in the workplace are identified following the appropriate procedures.
- Necessary and unnecessary items are listed using the appropriate format.
- Red tag strategy is used for unnecessary items.
- Unnecessary items are evaluated and placed in an appropriate place other than the workplace.
- Necessary items are recorded and quantified using appropriate format.
- Performance results are reported using appropriate formats.
- Necessary items are regularly checked in the workplace.

LO.3 Set all items in order

- Plan is prepared to implement set in order activities.
- General cleaning activities are performed.
- Location/Layout, storage and indication methods for items are decided.
- Necessary tools and equipment are prepared and used for setting in order activities.

- Items are placed in their assigned locations.
- After use, the items are immediately returned to their assigned locations.
- Performance results are reported using appropriate formats.
- Each item is regularly checked in its assigned location and order.

LO.4 Perform shine activities

- Plan is prepared to implement shine activities.
- Necessary tools and equipment are prepared and used for shining activities.
- Shine activity is implemented using appropriate procedures.
- Performance results are reported using appropriate formats.
- Regular shining activities are conducted.

LO5. Standardize 5S

- Plan is prepared and used to standardize 5S activities.
- Tools and techniques to standardize 5S are prepared and implemented based on relevant procedures.
- Checklists are followed for standardize activities and reported to relevant personnel.
- The workplace is kept to the specified standard.
- Problems are avoided by standardizing activities.

LO6. Sustain 5S

- Plan is prepared and followed to sustain 5S activities.
- Tools and techniques to sustain 5S are discussed, prepared and implemented based on relevant procedures.
- Workplace is inspected regularly for compliance to specified standard and sustainability of 5S techniques.
- Workplace is cleaned up after completion of job and before commencing next job or end of shift.
- Situations are identified where compliance to standards is unlikely and actions specified in procedures are taken.
- Improvements are recommended to lift the level of compliance in the workplace.
- Checklists are followed to sustain activities and report to relevant personnel.
- Problems are avoided by sustaining activities.

Annex: Resource Requirements

AGR ANP1 M09 0422 Applying 5S Procedures				
Item No.	Category/Item	Description/ Specifications	Qty.	Recommended Ratio (Item: Trainee)
A.	<i>Learning Materials(Disability inclusive learning guide)</i>			
1.	TTLM	Prepared Ministry of Labor and skill	25 Pcs	1:1
2.	Reference Books			
2.1	Gemba KAIZEN	2nd Edition Masaaki Imai	5 Pcs	1:5
3.	Journals/Publication/Magazines	Published/unpublished	2 Pcs	1:12
B.	<i>Learning Facilities & Infrastructure</i>			
1.	Class room	5*10m	1	1:25
2.	Clinic/first aid provision area	6*8m	1	1:25
3.	Library	5*7.5m	1	1:25
4.	Simulation room for assessment	3*5m	1	1:25
5.	Demonstration site	5*10m	1	1:25
6.	Laboratory	5*10m	1	1:25
7.	Work shop	9*4m	1	1:25
8.	Audiovisual room	5*10m	1	1:25
9.	ICT room	7*9m	1	1:25
10.	Printing and photocopy service	Standard	1	1:25
11.	Vehicles for cooperative/practical training	Standard	1	1:25
12.	White board	1.2*1.8m	1	1:25
13.	Black board	1.2*2m	1	1:25
14.	Chalk	Dubai	1 Packet	1:25
15.	Marker	Permanent and non permanent	2 Packet	1:13
16.	A3 paper	Double A Stationary A4 paper	25 Packet	1:1
17.	A4 paper	Double A Stationary A4 paper	25 Packet	1:1
18.	Fixer with lid	HB/1.5 mm	25 Packet	1:1
19.	Stencils	Ball point	10 Pcs	1:3
20.	Toner	HP	As needed, 10 pieces	1:3
21.	Fastener	ACCO two-piece paper fasteners	As needed, 50 pieces	2:1
22.	UTP cable	Cat5E UTP cable	2 boxes	1:13
23.	Notice board	900 mm x 600 mm Heavy duty wooden	1	1:25
24.	Green board	China Magnetic Green Board	1	1:25
25.	T-square	Aluminum metal type	25	1:1
26.	Flip chart	Sinar Line	1	1:25

27.	Graph paper	Roll	5	1:5
28.	pencil	HB	5	1:5
29.	Drawings with specifications	Any suitable drawing	5	1:5
30.	Ruler	Mica 30 cm	25	1:1
31.	Eraser	Standard	1	1:25
32.	Duster	Wooden made	1	1:25
33.	Computer	Desktop	25 Pcs	1:1
34.	Computer table	1*2m	13 Pcs	1:2
35.	LCD projector	EB-2250U HDMI/USB/LAN	1	1:25
36.	Laptop	Core i7, RAM 8, storag1TB	1	1:25
Consumable material				
1.	Detergent	Liquid	10 Lt	1:2
2.	Sweeper	Sponge	5 Pcs	1:5
Tools and equipment				
1.	5s Slogans	Per workshop	5 Pcs	1:5
2.	5s Map	Per workshop	5 Pcs	1:5
3.	Shelves	Per workshop	5 Pcs	1:5
4.	Kaizen Board	Per workshop	1 Pcs	1:25

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees 	<ul style="list-style-type: none"> ❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ provide tutorial support (if necessary)
Group discussion	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:

Interview		<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/Observation	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

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