



Republic of Rwanda
Ministry of Education



RTB | RWANDA
TVET BOARD

FOPMP303

FRESH MEAT PRODUCTION

PRODUCE FRESH MEAT

Competence

RQF Level: 3

Learning Hours



50

Credits: 5

Sector: Agriculture and Food Processing

Trade: Food Processing

Module Type: Specific

Curriculum: AGRFOP3003- TVET Certificate 3 Food Processing

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Purpose statement	This module describes the skills, knowledge and attitude required to perform animals slaughtering and meat butchering in the meat processing industry. it is reserved for trainees pursuing TVET Certificate III in food processing. Upon completion of this module the learners will be able to handle the animals for slaughtering, slaughter the animals and butcher the meat, he or she can work in slaughterhouse/ butcher house or other entities performing the similar activities under minimum supervision.						
Delivery modality	Training delivery			100%	Assessment		Total 100%
	Theoretical content			30%	Formative assessment	30%	50%
	Practical work:			70%		70%	
	• Group project and presentation	20%					
	• Individual project /Work	50%					
				Summative Assessment			50%

Elements of Competency and Performance Criteria

Elements of competency	Performance criteria
1. Prepare workplace	1.1. Tools, materials and equipment are well selected according to intended use
	1.2. Work area is well arranged according to production process
	1.3. Animal is well handled according to slaughtering requirements
2. Slaughter the animal	2.1. The animal is properly restrained according to animal species
	2.2. The animal is well stunned according to animal species
	2.3. The animal is properly bled according to the bleeding technique
	2.4. The animal is properly skinned/dehairing/defeathering according to animal species
	2.5. The animal is properly eviscerated according to evisceration techniques
	2.6. The carcass is well split according to halving techniques
3. Butcher the meat	3.1. The carcass is well inspected according to quality requirements
	3.2. The carcass is properly cut according to product specifications

	3.3. The meat is properly deboned according to product specification
	3.4. The meat is properly trimmed according to intended use
	3.5. The meat is properly graded according to animal species
4. Store fresh meat	4.1. The fresh meat are properly packaged according to product specifications
	4.2. The fresh meat are well labelled according to the product specifications
	4.3. The fresh meat are properly kept according to the product specifications

Learning outcomes	At the end of the module the learner will be able to: 1. Prepare workplace 2. Slaughter the animal 3. Butcher the meat 4. Store the meat
Learning outcome 1: Prepare workplace	Learning hours:5
Indicative content	
• Selection of tools , materials and equipment ✓ Identification of tools and equipment ✚ Tools and equipment for workplace cleaning ✚ Tools and equipment for animal slaughtering ✚ Tools and equipment for animal butchering ✚ Tools and equipment for carcass storage ✚ Tools and equipment for fresh meat storage ✚ Selection criteria of animal for slaughter, ✓ Adjustment and functionality of tools and equipment • Cleaning of the workplace ✓ The purpose of work area arrangement ✓ Cleaning products used in fresh meat production ✓ Performing the cleaning of workplace ✚ Cleaning method for tools and equipment ✚ Cleaning method for work area ✓ Checking of cleanliness of workplace ✚ Visual inspection ✚ SWAB testing ✓ Working area setting (production flow chart) • Handling the animal ✓ Ante-mortem inspection of animal ✚ Objectives of Visual inspection ✚ Visual inspection conditions	

✚ Abnormalities to be checked on the ante-mortem inspection ✓ Lairage of the animal ✚ Purpose of lairage ✚ Lairage conditions	
Resources required for the learning outcome	
Equipment	Stunning box, hoist, hanging platform, bleeding shackles, skin remover, dehiding machine, viscera remove platform, viscera chute, washing machine, scalding tank, dehairing machine, hair singeing, splitting saw machine, brisket saw machine, pressure cleaner, chilling room, freezer, refrigerator, cutting tables, PPEs, band saw, vacuum packaging machine, Computer, projector, black board, meat tenderizer
Materials	Cattle, pig, sheep, goat, poultry, detergents, disinfectant, potable water, glover, CO ₂ , chalks, paper, flip chart, pen, marker pen, packaging materials.
Tools	Electronic scale, hooks, trimming knives, skinning knives, deboning knives, brushes, moopers, squeegees, sweepers, towels, buckets, crates, trolley, cutting board, sharpener, captive bolt stunner, electrical stunner, stunning gun,
Facilitation techniques	• Demonstration and simulation • Individual and group work • Practical exercise • Trainer guided • Group discussion • Brainstorming • Field visit
Formative assessment methods	• Written assessment • Oral presentation • Performance assessment

Learning outcome 2: Slaughter the animal	Learning hours: 25
Indicative content	
• Restraining the animal ✓ Purpose of restraining ✓ Restraining techniques • Stunning the animal ✓ Purpose of stunning ✓ Stunning methods ✚ Electrical stunning	

- ✚ Captive-bolt stunning
- ✚ Carbon dioxide stunning

- **Bleeding the animal**

- ✓ Purpose of animal bleeding
- ✓ Bleeding process/method

- ✚ Vertical bleeding
- ✚ Horizontal bleeding

- ✓ Bleeding technique

- **Skinning/ dehairing /defeathering the animal**

- ✓ Purpose of skinning the animal
- ✓ Applying skinning techniques

- ✚ Hoist skinning
- ✚ Horizontal skinning

- ✓ Purpose of dehairing /defeathering
- ✓ Applying dehairing /defeathering techniques

- **Eviscerating the animal**

- ✓ Purpose of evisceration
- ✓ Identify meat offal
- ✓ Evisceration procedure

- **Splitting of carcass**

- ✓ Purpose of carcass halving
- ✓ Application of Splitting techniques of carcass

- ✚ Manual splitting
- ✚ Mechanical splitting

- ✓ Quartering of carcass

Resources required for the indicative content

Equipment	Stunning box, hoist, hanging platform, bleeding shackles, skin remover, dehairing machine, viscera remove platform, viscera chute, washing machine, scalding tank, dehairing machine, hair singeing, splitting saw machine, chilling room, freezer, refrigerator, cutting tables, PPEs, band saw, Computer, projector, black board
Materials	Cattle, pig, sheep, goat, poultry, packaging machine, potable water, glover, chalks, paper, flip chart, pen, marker pen, labels
Tools	Electronic scale, hooks, trimming knives, skinning knives, deboning knives, , buckets, crates, trolley, cutting board, sharpener, mechanical balance, thermometer, pH meter.
Facilitation techniques	• Demonstration and simulation • Individual and group work • Practical exercise

	• Individualized • Trainer guided • Group discussion • Brainstorming • Field visit
Formative assessment methods	• Written assessment • Oral presentation • Performance assessment • Product based assessment

Learning outcome 3: Butcher the meat	Learning hours:15
Indicative content	
• Examining the carcass ✓ Purpose of carcass examination ✓ Identification meat quality parameters ✓ Inspecting meat defects + Biological defects + Physical defects • Cutting the carcass ✓ Beef carcass + Identification of primal cuts + Identification of sub primal cuts + Identification of cutting methods ✓ Lamb/goat carcasses + Identification of primal cuts + Identification of sub primal cuts ✓ Pork carcass + Identification of primal cuts + Identification of sub primal cuts ✓ Chicken + Identification of primal cuts + Identification of chicken cut categories • Deboning the carcass ✓ Purpose of deboning ✓ Deboning procedures + Beef deboning procedures + Lamb/goat deboning procedures + Full Chicken deboning procedures • Trimming the meat ✓ Purpose of meat trimming ✓ Meat trimming procedures • Grading the meat	

- ✓ Purpose of meat grading
- ✓ Grading scheme of beef meat
- ✓ Grading scheme of pork meat
- ✓ Grading scheme of chicken meat
 - ✚ Small-scale grading
 - ✚ Industrial grading

Resources required for the indicative content

Equipment	splitting saw machine, brisket saw machine, pressure cleaner, chilling room, freezer, refrigerator, cutting tables, PPEs, band saw, Computer, projector, black board, meat tenderizer
Materials	carcasses, potable water, glover, chalks, paper, flip chart, pen, marker pen
Tools	Electronic scale, hooks, trimming knives, , deboning knives, , buckets, crates, trolley, cutting board, sharpener, mechanical balance, pH meter.
Facilitation techniques	• Demonstration • Individual and group work • Practical exercise • Individualized • Trainer guided • Group discussion
Formative assessment methods	• Written assessment • Oral presentation • Performance assessment • Product based assessment

Learning outcome 4: Store fresh meat

Learning hours: 5

Indicative content

- **Packaging of fresh meat**
 - ✓ Types of packaging materials
 - ✓ characteristics of fresh meat packages
 - ✓ Packaging of fresh meat
 - ✚ Purpose of packaging the fresh meat
 - ✚ Packaging technique of fresh meat
- **Labelling the packaged**
 - ✓ Purpose of labelling
 - ✓ Types of labels

✓ Labelling information • Monitoring of storage conditions of packaged fresh meat ✓ Freezing conditions ✓ Refrigeration conditions ✓ Chilling conditions	
Resources required for the indicative content	
Equipment	chilling room, freezer, refrigerator, vacuum packaging machine, Computer, projector, black board, shelves
Materials	packaging materials, potable water, glover, chalks, paper, flip chart, pen, marker pen, labels
Tools	Thermometer
Facilitation techniques	• Demonstration • Individual and group work • Practical exercise • Individualized • Trainer guided • Group discussion
Formative assessment methods	• Written assessment • Oral presentation • Performance assessment • Product based assessment

Integrated/Summative assessment (For specific module)

Integrated situation

MILANO farmers ltd located in Gatsibo district, used to practice agricultural activities such as livestock of ruminants, pigs and poultry farming. It needs to produce fresh meat to be supplied at SUN SET View Hotel. In that regard, MILANO managing director wants to recruit a worker in charge of animal slaughtering, meat butchering. As a certified level 3 food processing assistant technician, you are asked to produce some samples before being employed in MILANO farmers ltd.

Task1:

- To slaughter, cut and grade poultry meat of 1 chicken

Instructions:

- Meat cuts should be made from chicken carcass
- Both meat grades and cuts should be stored in refrigerator separately.
- The activity should be done within 3 hours

Task2:

- To slaughter, cut and grade meat for 1 pig

Instructions:

- Meat cuts should be made from pig carcass
- Both meat grades and cuts should be stored in refrigerator separately.
- The activity should be done within 5 hours

Task3:

- To slaughter, cut and grade meat for 1 cow

Instructions:

- Meat cuts should be made from beef carcass
- Both meat grades and cuts should be stored in refrigerator separately.
- The activity should be done within 5 hour

Note:

- Tools and materials are available in MILANO production unit
- All activities should be done in MILANO production unit

Tools and Equipment	Stunning box, hoist, hanging platform, bleeding shackles, skin remover, dehiding machine, viscera remove platform, viscera chute, washing machine, scalding tank, dehairing machine, hair singeing, splitting saw machine, brisket saw machine, pressure cleaner, chilling room, freezer, refrigerator, cutting tables, PPEs, band saw, vacuum packaging machine, meat tenderizer, Electronic scale, hooks, trimming knives, skinning knives, deboning knives, , buckets, crates, trolley, cutting board, sharpener, mechanical balance, thermometer, pH meter
Materials/ Consumables	Cattle, pig, poultry, detergents, disinfectant, potable water, gloves, CO ₂

Assessable outcomes	Assessment criteria (Based on performance criteria)	Indicator	Observation		Marks allocation
			Yes	No	
Learning outcome 1: Prepare workplace	1.1 Tools and equipment are well selected according to intended use	Tools and equipment are selected			1
		Tools and equipment are adjusted			1
	1.2 Work area is well arranged	Cleaning products are used			2

(10%)	according to production process	Workplace are cleaned			3
		Cleanliness of workplace is checked			1
	1.3 Animal is well handled according to slaughtering requirements	Ante-mortem inspection is performed			1
		Lairage is performed			1
Learning outcome 2: Slaughter the animal (40%)	2.1 The animal is properly restrained according to animal species	Restraining is applied			4
	2.2 The animal is well stunned according to animal species	Stunning is applied			4
	2.3 The animal is properly bled according to the bleeding technique	Bleeding is performed			4
	2.4 The animal is properly skinned/dehairing/defeathering according to animal species	Skinning is applied			4
		The Carcass are washed			4
		Dehairing/defeathering is applied			4
	2.5 The animal is properly eviscerated according to evisceration techniques	Meat offal are identified			4
		Evisceration procedure is respected			4
	2.6 The carcass is well split according to halving techniques	Splitting of carcass are applied			4
		Quartering is performed			4
Learning outcome 3: Butcher the meat (40%)	3.1 The carcass is well inspected according to quality requirements.	Meat qualities are identified			3
		Meat defects are inspected			3
	3.2 The carcass is properly cut according to product specifications	Beef primal cuts are identified			3
		Sheep/goat primal cuts are identified			3
		Pork primal cuts are identified			4
		Chicken primal cuts are identified			4
	3.3 The meat is properly deboned according to product specification	Beef deboning is performed			4
		Lamb/goat deboning is performed			4

		Full Chicken deboning is performed			3
	3.4 The meat is properly trimmed according to intended use	Meat trimming is performed			3
	3.5 The meat is properly graded according to animal species	Beef meat are graded			3
		Chicken meat are graded			3
Learning outcome4: Store fresh meat (10%)	4.1 The fresh meat are properly packaged according to product specifications	Packaging materials are identified			3
		Packing is applied			2
	4.2 The fresh meat are well labelled according to the product specifications	Labelling is performed			2
	4.3 The fresh meat are properly kept according to the product specifications	Storage is applied			3
Total marks		100			
Percentage Weightage		100%			
Minimum Passing line % (Aggregate): 70%					

References:

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4. Good Practices for the Meat Industry. (2004). Food & Agriculture Org.
5. Pisc. (2001). Livestock (Including) Poultry at Slaughtering Establishments. Model Code of Practice for the Welfare. Csiro Publishing.
6. Smulders, F. J. M., & Algers, B. (2009). Welfare of Production Animals: Assessment and Management of Risks. Wageningen Academic Pub.