

## **PIG PRODUCTS AND BY-PRODUCTS PROCESSING**

**ISCED UNIT CODE:** 0811351 04 A

**TVETCDACC UNIT CODE:** AGR/CU/PP/CR/01/4/MA

### **Relationship to Occupational Standards**

This unit addresses the unit of competency: produce pig products and by-products

**Duration of Unit:** 150 hours

### **Unit Description**

This unit covers the competencies required to produce pig products and by-products. It involves collecting market information, identifying pig products and pig by-products to produce and identifying and preparing processing raw materials. It also entails processing meat to produce various pig products and processing pig waste products such as blood to produce pig by-products such as blood meal.

This standard applies in the pig production industry.

### **Summary of Learning Outcomes**

By the end of this unit, the learner should be able to:

<b>S/No</b>	<b>Learning Outcomes</b>	<b>Duration (Hours)</b>
1	Collect Market Data and Information	30
2	Identify Products and By-Products to Produce	30
3	Identify and Prepare Processing Raw Materials	30
4	Process Meat to Produce Various Pig Products	30
5	Process Pig Waste Products to Produce Pig By-Products	30

<b>Total</b>	<b>150</b>
--------------	------------

### **Learning Outcomes, Content and Suggested Assessment Methods**

<b>Learning Outcome</b>	<b>Content</b>	<b>Methods of Assessment</b>
1. Collect market data and information	1.1.Data and information collection tools 1.2.Data and information collection tools distribution. 1.3.Collecting data and information organization and analysis. 1.4.Survey report preparation. 1.5.Market feedback sharing.	<ul style="list-style-type: none"> <li>• Written test</li> <li>• Observation</li> <li>• Third party report</li> <li>• Oral questioning</li> <li>• Interviews</li> </ul>
2. Identify pig products and by-products to produce	2.1.Identifying pig products 2.2.Listing of pig products and by-products	<ul style="list-style-type: none"> <li>• Written test</li> <li>• Observation</li> <li>• Third party report</li> <li>• Oral questioning</li> <li>• Interviews</li> </ul>
3. Identify and prepare processing raw materials	3.1.Permits and certifications <ul style="list-style-type: none"> <li>3.1.1.Movement permits</li> <li>3.1.2.No objection permits</li> <li>3.1.3.Meat inspection permits</li> <li>3.1.4.Food and hygiene certificate</li> <li>3.1.5.Meat transportation permit</li> </ul> 3.2.Operational resources <ul style="list-style-type: none"> <li>3.2.1.Raw materials</li> <li>3.2.2.Tools and equipment</li> <li>3.2.3.Supplies</li> <li>3.2.4.Funds</li> <li>3.2.5.Human resources</li> </ul>	<ul style="list-style-type: none"> <li>• Written test</li> <li>• Observation</li> <li>• Third party report</li> <li>• Oral questioning</li> <li>• Interviews</li> </ul>

<b>Learning Outcome</b>	<b>Content</b>	<b>Methods of Assessment</b>
	<p>3.3.Production resources allocation</p> <p>3.3.1.Sausages</p> <p>3.3.2.Bacon</p> <p>3.3.3.Lard</p> <p>3.3.4.Cuts</p> <p>3.3.5.Brawn</p> <p>3.3.6.Smokies</p> <p>3.3.7. Burgers</p> <p>3.4.Developing Production schedules.</p>	
4. Process meat to produce various pig products	<p>4.1.Personal Protective Equipment</p> <p>4.1.1. Gloves</p> <p>4.1.2.Heat net</p> <p>4.1.3.Gumboots</p> <p>4.1.4.Facemask</p> <p>4.1.5.Safety googles.</p> <p>4.2.Identification and selecting pigs for processing.</p> <p>4.3.Preparing pigs for slaughtering</p> <p>4.4.Selecting pigs for slaughter</p> <p>4.5.Inspecting carcass based on legal requirements.</p> <p>4.5.1.Public health Act Cap 242</p> <p>4.5.2.EMCA 1999</p> <p>4.5.3.NEMA regulations</p> <p>4.5.4.Meat control Act Cap 365</p> <p>4.5.5.Factories Act Cap 514</p> <p>4.5.6.OSH Act 2007</p> <p>4.5.7.Animal welfare Act Cap 360</p>	<ul style="list-style-type: none"> <li>• Written test</li> <li>• Observation</li> <li>• Third party report</li> <li>• Oral questioning</li> <li>• Interviews</li> </ul>

<b>Learning Outcome</b>	<b>Content</b>	<b>Methods of Assessment</b>
	<p>4.6.Processing pig products procedures.</p> <p>    4.6.1.Blood meal</p> <p>    4.6.2.Bone meal</p> <p>    4.6.3.Biogas</p> <p>    4.6.4.Manure</p> <p>    4.6.5.Brushes</p> <p>    4.6.6.Buttons</p> <p>    4.6.7.Leather</p> <p>4.7.Implementing mechanisms to assure food safety and hygiene</p> <p>4.8.Packaging of pig products and storing.</p>	
5. Process pig waste products to produce pig by-products	<p>5.1.Identifying personal protection equipment and donning based job requirements.</p> <p>5.2.Obtaining raw materials for pig by-product production and sorting</p> <p>    5.2.1. Blood meal</p> <p>    5.2.2. Bone meal</p> <p>    5.2.3. Biogas</p> <p>    5.2.4. Manure</p> <p>    5.2.5. Brushes</p> <p>    5.2.6. Buttons</p> <p>    5.2.7. Leather</p> <p>5.3.Processing pig by-products</p> <p>5.4.Packaging pig by-products and storing</p> <p>5.5.Managing waste.</p> <p>5.6.Preparing production records and report and maintaining</p>	<ul style="list-style-type: none"> <li>• Written test</li> <li>• Observation</li> <li>• Third party report</li> <li>• Oral questioning</li> <li>• Interviews</li> </ul>

## Suggested Methods of instructions

- Projects
- Demonstration by trainer
- Practice by the trainee
- Discussions
- Direct instruction

## Recommended Resources for 25 Trainees

Functional pig farm with the following:		
<ul style="list-style-type: none"><li>• Tools and equipment</li><li>• Chopping boards, vacuum packers, sterilizers, trays, band saws, mincers, bowl choppers, sausage casing machines, meat slicers, chopping knives, electric/mechanical stunners, butchers cleavers, sharpening steel, hooks and rollers, chain glove, electronic weighing balance, chutes, table conveyer belts, trolleys, galvanized wheel barrows, hoists, forklifts, spades, deep</li></ul>	<ul style="list-style-type: none"><li>• PPEs</li><li>• White dust coats, white gumboots, gloves, white cap/helmet, hair nets, white plastic aprons, dust masks, safety goggles, ear muffs and first aid kits</li><li>• Materials and supplies</li><li>• Portable water, Raw materials, packaging materials, labeling materials, sanitizers, disposable towels, liquid soap dispensers, ultra violet insect traps,</li></ul>	<ul style="list-style-type: none"><li>• Processing facility</li><li>• Processing rooms, cold rooms, stores, cloak rooms, lavatory facilities, office space, furniture, condemnation pits, incinerators, washing basins, footbath, water reservoirs, laboratory, biogas digester</li></ul>

freezers, chillers, refrigerators, brooms, brushes, labeling and sealing machines, evaporators, air conditioners, smoking chambers, autoclave machines, quality assurance equipment and reagents	lubricants, detergents, stationery	
---	---------------------------------------	--