

**REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARD**

**FOR**

**PIG PRODUCTION OPERATOR**

**KNQF LEVEL** **4**

**ISCED CODE:** **08110354A**

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# **FOREWORD**

The provision of quality education and training is fundamental to the Government’s overall strategy for social economic development. Quality education and training will contribute to achievement Kenya’s development blue print and sustainable development goals.

Reforms in the education sector are necessary for the achievement of Kenya Vision 2030 and meeting the provisions of the Constitution of Kenya 2010. The education sector had to be aligned in the Constitution and this resulted to the formulation of the Policy Framework for Reforming Education and Training (Sessional Paper No. 4 of 2016). A key feature of this policy is the radical change in the design and delivery of the TVET training. The policy document requires that training in TVET shall be competency based, curriculum development shall be industry led, certification shall be based on demonstration of competence and mode of delivery shall allow for multiple entry and exit in TVET programmes.

These reforms demand that Industry takes a leading role in curriculum development to ensure the curriculum addresses its competence needs. It is against this background that these Occupational Standards were developed for the purpose of developing a competency-based curriculum for Pig production level 4. These Occupational Standards will also be the basis for assessment of an individual for competence certification.

It is my conviction that these Occupational Standards will play a great role towards development of competent human resource for the Agricultural sector’s growth and sustainable development.

# **PREFACE**

Kenya Vision 2030 aims to transform the country into a newly industrializing, “middle-income country providing a high-quality life to all its citizens by the year 2030”. Kenya intends to create a globally competitive and adaptive human resource base to meet the requirements of a rapidly industrializing economy through life-long education and training. TVET has a responsibility of facilitating the process of inculcating knowledge, skills and attitudes necessary for catapulting the nation to a globally competitive country, hence the paradigm shift to embrace Competency Based Education and Training (CBET).

The Technical and Vocational Education and Training Act No. 29 of 2013 and the Sessional Paper No. 4 of 2016 on Reforming Education and Training in Kenya, emphasized the need to reform curriculum development, assessment and certification. This called for shift to CBET to address the mismatch between skills acquired through training and skills needed by industry as well as increase the global competitiveness of Kenyan labour force.

The TVET Curriculum Development, Assessment and Certification Council (TVET CDACC), in conjunction with Barak Agricultural College and Agricultural Sector Skills Advisory Committee (SSAC) have developed these Occupational Standards for pig producer. These occupational standards will be the bases for development of competency-based curriculum for pig production level 4. These Standards will also be the basis for assessment of an individual for competence certification.

The occupational standards are designed and organized with clear performance criteria for each element of a unit of competency. These standards also outline the required knowledge and skills as well as evidence guide.

I am grateful to Council Secretariat, Council Technical Committee, Pig SSAC and expert workers and all those who participated in the development of these occupational standards.

# **ACKNOWLEDGMENTS**

These Occupational Standards were developed through combined effort of various stakeholders from private and public organizations. I am sincerely thankful to the management of these organizations for allowing their staff to participate in this course. I wish to acknowledge the invaluable contribution of industry players who provided inputs towards the development of these Standards.

I thank TVET Curriculum Development, Assessment and Certification Council (TVET CDACC) for providing guidance on the development of these Standards. My gratitude goes to the Agricultural Sector Skills Advisory Committee (SSAC) members for their contribution to the development of these Standards. I also thank all the individuals and organizations who participated in the validation of these Standards.

My gratitude also goes to Baraka Agricultural College, Molo who took the lead role and cooperated with TVET CDACC.

Appreciations also go to Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) for their support in financing the development of these Standards.

I acknowledge any other institution which in one way or another contributed to the success of development of these Standards but has not been mentioned.

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# **ABBREVIATIONS AND ACRONYMS**

CDACC Curriculum Development, Assessment and Certification Council

CR Core Competency

ICT Information Communication Technology

KCSE Kenya Certificate of secondary Education

KNQA Kenya National Qualifications Authority

NEMA National Environmental Management Authority

OS Occupational Standards

OSHA Occupation Safety and Health Act

OSHS Occupation Safety and Health Standards

PPE Personal Protective Equipment

SOPs Standard Operating Procedures

SSAC Sector Skills Advisory Committee

TVET Technical and Vocational Education and Training

# **KEY TO UNIT ISCED CODE**



# **OVERVIEW**

Pig production level 4 qualification consists of competencies that a person must have to construct a pig unit, produce pig stock, produce pig feeds, produce pig products and by-products and market pig and pig products.

The Units of Competency comprising Pig production level 4 qualification includes the following core units:

**CORE COMPETENCIES**

|  |  |
| --- | --- |
| **UNIT CODE** | **UNIT TITLE** |
| 0811 351 01 A | Construct pig unit |
| 0811 351 02 A | Produce pig stock |
| 0811 351 03 A | Produce pig feeds |
| 0811 351 04 A | Produce pig products and by-products |
| 0811 351 05 A | Market pigs, pig products and pig by- products |

# 

# **CONSTRUCT PIG UNIT**

**UNIT CODE**: **0811 351 01 A**

**UNIT DESCRIPTION**

This unit covers the competencies required to oversee the construction of a pig unit. It involves determining pig unit construction site, planning for pig unit construction resources, overseeing pig unit construction, repair and maintenance activities.

This standard applies in the pig production industry.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements**.**  ***Bold and italicized terms* *are elaborated in the Range.*** |
| 1. Determine pig unit construction site | 1. Pig unit is sited based on ***physical and social environment*** of the farm. 2. ***Pig unit design*** is selected based on the site, ***type of enterprise*** and ***mode of farming*.** 3. Instructions on marking out the site are issued as per workplace policy and the design selected. |
| 1. Plan resources for pig unit construction | 1. ***Resources required*** for pig unit construction are identified based on pig unit design, ***objective of the farmer***and ***source of funding*** of the project. 2. Pig unit constructor is identified based on cost, expertise and experiences. 3. Cost of pig unit is determined based on availability of construction materials, size, design and mode of production. 4. Construction TORs are developed based on project specifications and the pig unit design. 5. SMART Contract document is drawn and signed based on TORs. |
| 1. Oversee pig unit construction activities | 1. Resources are allocated based on pig unit construction activities. 2. Project progress is monitored and evaluated based on project schedule. 3. ***PPEs*** are identified and worn based on job requirements. 4. Construction is carried out based on pig unit design and the TORs. 5. Pig unit construction report is prepared and documented based on the projected plan. 6. Pig unit is commissioned for use/occupation based on recommendations of the completion report. |
| 1. Oversee pig unit repair and maintenance activities | 1. Resources for pig unit maintenance are identified and gathered based on the nature and extent of damage. 2. Labour requirement for pig unit repair and maintenance is determined based on the nature, extent of damage and expertise. 3. ***Areas of pig unit upgrading*** are identified based on shortcomings of the original design. 4. Pig unit repair and maintenance is carried out based on the original design/plan. 5. Repair and maintenance report is prepared and documented based on workplace policy. |

**RANGE OF VARIABLES**

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

|  |  |
| --- | --- |
| **VARIABLE** | **RANGE** |
| 1. Physical environment May include but not limited to: | * Topography * Accessibility * Water availability * Climate |
| 1. Pig unit design May include but not limited to: | * Deep litter * Concrete * Slatted floor * Open paddocks |
| 1. Type of enterprise May include but not limited to: | * Small scale * Large scale * Commercial * Breeder |
| 1. Mode of farming May include but not limited to: | * Intensive * Extensive * Semi-intensive |
| 1. Resources required for pig unit construction May include but not limited to: | * Labour * Funding * Raw materials |
| 1. Objective of the farmer May include but not limited to: | * Profit making * Non-profit making |
| 1. Source of funding May include but not limited to: | * Own savings * Loan * Donor funds |
| 1. PPE May include but not limited to: | * Equipment and apparel used for safety of the worker eg. Gum boots, overall, goggles, helmet, nose masks, gloves |
| 1. Social environment May include but not limited to: | * Security * Neighborhood * Cultural beliefs * Religious beliefs |
| 1. Areas of pig unit upgrading May include but not limited to: | * Watering systems * Heating systems * Feeding systems |

**REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit of competency.

**Required Skills**

* The individual needs to demonstrate the following skills:
* Communication skills
* Interpersonal
* Analytical
* Negotiation
* Problem solving
* Fabrication
* Interpretation
* Technical drawing
* Tool handling
* Site preparation
* Site selection

**Required knowledge**

* The individual needs to demonstrate knowledge of:
* Building materials, tools and equipment
* Consideration in siting a pig unit
* Development and management contract document
* Foundation laying
* Housing care, repair and maintenance
* Monitoring work progress
* Pig housing types and designs
* Report writing and record keeping
* Requisition of building materials
* Safety precautions
* Terms of reference development
* Types of pig production systems

**EVIDENCE GUIDE**

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

|  |  |
| --- | --- |
| 1. Critical aspects of Competency | 1. Assessment requires evidence that the candidate: 2. Sited the pig unit appropriately. 3. Selected appropriate pig unit design. 4. Identified quality pig unit construction materials. 5. Developed a SMART contract document. 6. Monitored and evaluated the progress of the pig unit construction project. 7. Prepared and documented pig unit construction report. 8. Appropriately identified areas of pig unit upgrading. 9. Prepared a repairs and maintenance report. 10. Demonstrated understanding of pig unit siting and design selection considerations. 11. Demonstrated understanding of pig production systems. |
| 1. Resource Implications for competence certification | The following resources **MUST** be provided:   1. Access to the relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place 3. Materials relevant to the proposed activity or tasks |
| 1. Methods of Assessment | Competency may be assessed through:   1. Observation 2. Written test 3. Interview 4. Oral questions 5. Third party report 6. Project |
| 1. Context for Assessment | Assessment may be conducted in:   1. On-the-job 2. Off-the-job 3. Workplace attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

# **PRODUCE PIG STOCK**

**UNIT CODE**: **0811 351 02 A**

**UNIT DESCRIPTION**

This unit covers the competencies required to produce pig stock. It involves developing and implementing a pig breeding programme, carrying out routine pig stock management practices as well as herd health management and bio-security practices.

This standard applies in the pig production industry.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms* *are elaborated in the Range.*** |
| 1. Develop and implement pig breeding programme | 1. The ***goals and objectives*** of the organization are defined based on long term plans. 2. ***Required resources*** are identified and gathered based on the organizations’ objectives. 3. Breeding programmes are developed and documented based on the objective of the organization. 4. Pig breeding programme is implemented based on the objectives of the farm. |
| 1. Carry out routine pig stock management practices | 1. ***PPEs*** are identified and worn based on job requirements. 2. ***Generic pig stock management practices*** are carried out based on good animal husbandry management guidelines as per standard operating procedures. 3. ***Non-generic pig stock management practices*** are carried out based on enterprise objectives and standard operating procedures. 4. Pigs are handled in due regard of their ***welfare*** as per good animal husbandry management guidelines. 5. Pig routine management practices records are developed and maintained as per good animal husbandry management guidelines and organization policy. |
| 1. Carry out health management and bio-security practices | 1. PPEs are identified and worn based job requirements. 2. ***Pig******stock health management practices*** are carried out based on animal health management and good animal husbandry management guidelines and ***legal requirement*** as per standard operating procedures. 3. ***Pig farm bio-security practices*** are carried out based on good animal husbandry management guidelines and legal requirement as per standard operating procedures. 4. Pig herd health management records are developed and maintained as per good animal husbandry management guidelines and organization policy. |

**RANGE OF VARIABLES**

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

|  |  |
| --- | --- |
| **VARIABLE** | **RANGE** |
| 1. Goals and objectives May include but not limited to: | * The decision the farmer makes on either to produce pork or bacon or breeding stock only * Decision on rearing systems |
| 1. Required resources May include but not limited to: | * Land * Labour * Finances and materials |
| 1. PPEs May include but not limited to: | * Equipment and apparel used for safety of the worker eg. Gum boots, overall, goggles, helmet, nose masks, gloves |
| 1. Generic pig stock management practices May include but not limited to: | * Teeth clipping * Docking * Iron injection * Weaning * Weighing * Feeding * Deworming * Watering * Vaccination * Identification * Selection |
| 1. Non-genericpig stock management practices May include but not limited to: | * Castration * Fattening * Culling * Flushing * Steaming up * Serving/mating * Farrowing |
| 1. Pig stock health management practices May include but not limited to: | * Endo- parasite control (deworming) * Ecto-parasite control (acaridae spray) * Disease control (preventive) * Feeding * Culling * Generic selection |
| 1. Legal requirements May include but not limited to: | * Bio-safety Act No. 2 of 2009 * Animal welfare Act Cap 360 * Animal disease Act Cap 364 * Animal movement permits |
| 1. Pig farm bio-security practices May include but not limited to: | * Foot bath * Quarantine * Pen disinfection * Equipment sterilization * Fencing * Vaccination * PPEs |

**REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit of competency.

**Required Skills**

The individual needs to demonstrate the following skills:

* Analytical
* Communication
* Computing skills
* Critical thinking
* Decision making
* Equipment operation
* Feed handling
* Health management skills
* Negotiation
* Pig handling
* Problem solving
* Record keeping
* Routine management skills
* Writing

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Agro ecological zones
* pig breeds
* Bio-security measures in a pig farm
* Common diseases
* Costing
* Development of a pig breeding programme
* Feeds and feeding requirements
* Housing
* Legal aspects of livestock management
* Marketing
* Pig management practices
* Pig management tools and equipment
* Production systems
* Routine practices
* Sources of pig breeds

**EVIDENCE GUIDE**

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

|  |  |
| --- | --- |
| 1. Critical aspects of Competency | 1. Assessment requires evidences that the candidate: 2. Clearly defined the goals and objectives of the organizations. 3. Identified breeding stock whose characteristics were commensurate with the objective of the organization. 4. Developed and documented a comprehensive pig breeding programme. 5. Carried out pig stock management practices appropriately. 6. Observed pig welfare during handling. 7. Observed farm bio-security practices and legal requirements. 8. Carried out pig stock health management practices appropriately. 9. Prepared and maintained routine pig management, health management and bio-security practices records appropriately. 10. Safely used and handled pig management tools and equipment. 11. Demonstrated understanding of pig diseases, their prevention and control measures. |
| 1. Resource implications for competence certification | The following resources **MUST** be provided:   1. Access to the relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place 3. Materials relevant to the proposed activity or tasks |
| 1. Methods of Assessment | Competency may be assessed through:   1. Observation 2. Written test 3. Interview 4. Oral questions 5. Third party report 6. Project |
| 1. Context for Assessment | Assessment may be conducted in:   1. On-the-job 2. Off-the-job 3. Workplace attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

# **PRODUCE PIG FEEDS**

**UNIT CODE**: **0811 351 03 A**

**UNIT DESCRIPTION**

This unit covers the competencies required to produce pig feeds. It involves identifying and sourcing pig feed raw materials, identifying, selecting and applying pig feed production formulae and compounding and storing pig feed rations. It also entails marketing and selling pig feeds.

This standard applies in the pig production industry.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms* *are elaborated in the Range.*** |
| 1. Identify and source pig feed raw materials | 1. ***Raw materials*** are identified based on availability, cost and suitability. 2. Raw materials are selected based on nature, quality and nutritional value. 3. Raw materials are procured based on storage capacity and financial ability in accordance with organizations’ procurement procedures. 4. Raw materials are stored based on type and ***their storage requirements.*** |
| 1. Identify and apply pig feed production formula | 1. Pig feed production formulae are determined based on ***pig feed standards*** and available raw materials. 2. Pig feed formulae are adapted based on least cost combination, organizations’ objectives, growth stage and expected meat product. 3. Nutritional value of pig feed is determined based on *feed* ***analysis*** report. |
| 1. Compound feed ration | 1. PPEs are identified and worn based on job requirements. 2. ***Feed ingredients*** are quantified and weighed based on the adapted feed formula. 3. ***Feed Ingredients preparation method*** is determined based on their type and form. 4. Ingredients are mixed based on ***specified ration*.** 5. Compound feed is weighed and packaged based on market standards and organizations policy. 6. Pig feeds are stored based ontype and products’ storage requirements. 7. Waste is managed based on types and in due regard to ***statutory regulations and environmental management procedures*.** 8. Report on pig feeds formulation activities is prepared and documented as per workplace policy. |
| 1. Market and sell pig feeds | 1. Market survey for pig feeds i 2. ***Marketing channels*** are identified based on market segmentation. 3. Marketing strategy is developed and implemented based on market needs. 4. Products’ competitive advantage is identified and promotion carried out based on market demand. 5. Product price is set based on cost of production, profit margins, organization objectives and competitor pricing. 6. ***Products outlets*** are selected based on identified channels. 7. ***Contractual agreements*** are undertaken, signed off and managed based on agreed terms. 8. Marketing strategy is reviewed based on performance. 9. Report on pig feeds marketing and sales activities is prepared and documented as per workplace policy. |

**RANGE OF VARIABLES**

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

|  |  |
| --- | --- |
| **VARIABLE** | **RANGE** |
| Raw materials May include but not limited to: | * Grains * Legumes * Grain by-products * Animal by-products * Vitamins * Minerals * Ashes * Additives |
| Product storage requirements May include but not limited to: | * Dry place * Dark place * Cool dry place |
| Pig feed standards May include but not limited to: | * KEBs standards * KIDRI standards * American feed standards * ARC |
| Pig feed types May include but not limited to: | * Starter * Growers * Sow and weaner * Pig finisher/fattener |
| Feed analysis/tests May include but not limited to: | * Crude protein * Dry matter * Fat content * Energy * Moisture content * Ash * Mineral |
| Feed ingredients preparation methods May include but not limited to: | * Roasting * Drying * Milling * Grinding * Extrusions * Boiling * Soaking |
| Statutory regulations May include but not limited to: | * EMCA 1999 * Public health Cap 242 * NEMA regulations * OSH Act 2007 |
| Products outlets May include but not limited to: | * Farm gate * Agro vet * Supermarkets * Animal feed stores |
| Contractual agreements May include but not limited to: | * Verbal * Written |

**REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit of competency.

**Required Skills**

The individual needs to demonstrate the following skills:

* Measuring
* Recording
* Machine operation
* Communication
* Computing
* Feed mixing
* Interpersonal
* Analytical
* Tool handling
* Communication
* Problem solving
* Decision making
* Critical thinking
* Basic market Survey
* Weighing
* Batching
* Sales and marketing skills

**Required knowledge**

* The individual needs to demonstrate knowledge of:
* Feed manufacturing tools and machinery
* Ingredients nutrient content
* Growth cycle of pigs
* Sources of feed materials
* feed Analysis
* Preparation methods of feed raw materials
* Feed formulation
* Feed quality control and nutrition standards
* Feed handling and storage
* Safety precautions
* Procurements procedures
* Statutory regulations regarding production livestock feeds
* Waste management and disposal
* Stores management
* Sales and marketing principles.

**EVIDENCE GUIDE**

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

|  |  |
| --- | --- |
| 1. Critical aspects of Competency | 1. Assessment requires evidences that the candidate: 2. Identified and selected feed formulation raw materials. 3. Observed organizations procurement procedures. 4. Sampled and presented samples for lab analysis regularly. 5. Interpreted feed lab analysis report appropriately. 6. Managed and disposed waste appropriately. 7. Demonstrated understanding of pig feed formulation principles. 8. Demonstrated understanding of pig feed production. 9. Demonstrated understanding of livestock nutritional requirements. 10. Demonstrated understanding of statutory regulations related to feed manufacturing. 11. Demonstrated understanding of sales and marketing principles. 12. Safely used and handled pig feed processing tools and equipment. 13. Stored feed raw materials and processed feeds appropriately. |
| 1. Resource implications for competence certification | The following resources **MUST** be provided:   1. Access to the relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place 3. Materials relevant to the proposed activity or tasks |
| 1. Methods of Assessment | Competency may be assessed through:   1. Observation 2. Written test 3. Interview 4. Oral questions 5. Third party report 6. Project |
| 1. Context for Assessment | Assessment may be conducted in:   1. On-the-job 2. Off-the-job 3. Workplace attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

# **PROCESS PIG PRODUCTS AND BY-PRODUCTS**

**UNIT CODE**: **0811 351 04 A**

**UNIT DESCRIPTION**

This unit covers the competencies required to produce pig products and by-products. It involves 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.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms* *are elaborated in the Range.*** |
| 1. Collect market data and information | * 1. Data and information collection tools are obtained based on data to be collected.   2. ***Data and information collection tools*** are distributed based on workplace instructions.   3. Collected data and information is organized and ***analysed*** in accordance with acceptable/appropriate statistical procedures.   4. Survey report is prepared and recommendations given based on findings.   5. Market feedback is shared based on workplace procedures. |
| 1. Identify products and by-products to produce | 1. Pig products identified based on market survey report. 2. List of products and by-products to produce is developed based on survey recommendation. |
| 1. Identify and prepare processing raw materials | 1. Necessary ***permits and certifications*** are obtained based legal and statutory requirements. 2. ***Operational resources*** are identified and gathered based on expected products. 3. ***Production resources*** are allocated based on the products to be produced. 4. Production schedules are developed based on plant capacity and market demand. |
| 1. Process meat to produce various pig products | 1. ***PPEs*** are identified and worn based on job requirements. 2. Pigs for processing are identified and selected based on age and weight. 3. Pigs for slaughtering are prepared based on the standard operation procedures 4. Selected pigs are slaughtered as per standard operating procedures 5. Carcass inspection is done based on legal requirements. 6. ***Pig products*** are processed based on recipe and processing chart, in accordance with standard operating procedures. 7. Mechanisms to assure food safety and hygiene are implemented based on legal and statutory requirements. 8. Pig products are packaged and stored based on type and product requirements. |
| 1. Process pig waste products to produce pig by-products | 1. PPEs are identified and worn based job requirements. 2. Raw materials for pig ***by-product production*** are obtained and sorted based on end products. 3. Pig by-products are processed as per standard processing procedures. 4. Pig by-products are packaged and stored based on product requirements. 5. Waste is managed based on type, in due regard to ***environmental protection laws and regulations.*** 6. ***Production records*** and report are prepared and maintained as per workplace policy. |

**RANGE OF VARIABLES**

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

|  |  |
| --- | --- |
| **VARIABLE** | **RANGE** |
| 1. Permits and certifications May include but not limited to: | * Movement permits * No objection permits * Meat inspection permits * Food and hygiene certificate * Meat transportation permit |
| 1. Production resources May include but not limited to: | * Raw materials * Tools and equipment * Supplies * Funds * Human resources * Operational resources |
| 1. Processed pig products May include but not limited to: | * Sausages * Bacon * Lard * Cuts * Brawn * Smokies * Burgers |
| 1. Cuts May include but not limited to: | * Ham * Loin * Ribs * Belly * Head * Trotters * Offal |
| 1. By-products May include but not limited to: | * Blood meal * Bone meal * Biogas * Manure * Brushes * Buttons * Leather |
| 1. Legal requirements May include but not limited to: | * Public health Act Cap 242 * EMCA 1999 * NEMA regulations * Meat control Act Cap 365 * Factories Act Cap 514 * OSH Act 2007 * Animal welfare Act Cap 360 |

**REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit of competency.

**Required Skills**

The individual needs to demonstrate the following skills:

* Communication
* Interpersonal
* Critical thinking
* Analytical
* Problem-solving
* Decision making
* Marketing
* Tool handling
* Machine operation
* Meat processing

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Types of pig products
* Terms of reference
* Environmental law
* Socio-cultural and religious beliefs
* Marketing of pork and pork products
* Standard operating procedures for food products – local & export market
* Pig handling and slaughter operations
* Food safety and hygiene
* Pork value chain
* Technology of various pig products and by-products
* Food quality assurance
* Legal and statutory requirements in food processing
* Documentation in food processing
* Packaging and storage
* Waste management
* Tools, equipment and supplies in pig processing

**EVIDENCE GUIDE**

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

|  |  |
| --- | --- |
| 1. Critical aspects of Competency | 1. Assessment requires evidences that the candidate: 2. Collected and analyzed data using appropriate tools. 3. Prepared and documented appropriate products and by-products for production. 4. Identified and obtained appropriate permits and certifications. 5. Identified and selected appropriate operational and production resources. 6. Prepared comprehensive and workable production schedules. 7. Identified and selected pigs for slaughtering and processing appropriately. 8. Observed processing statutory requirements. 9. Managed and disposed waste appropriately. 10. Prepared and documented pig processing records appropriately. 11. Demonstrated understanding of pig handling and slaughter operations. 12. Demonstrated understanding of food safety and hygiene principles. 13. Demonstrated understanding of pig value chain. 14. Demonstrated understanding of technology pig products and by-products processing. 15. Demonstrated understanding of use and handling of tools, equipment and supplies in pig processing. 16. Demonstrated understanding of safety and security in the workplace. |
| 1. Resource implications for competence certification | The following resources **MUST** be provided:   1. Access to the relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place 3. Materials relevant to the proposed activity or tasks |
| 1. Methods of Assessment | Competency may be assessed through:   1. Observation 2. Written test 3. Interview 4. Oral questions 5. Third party report 6. Project |
| 1. Context for Assessment | Assessment may be conducted in:   1. On-the-job 2. Off-the-job 3. Workplace attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

# **MARKET PIGS, PIG PRODUCTS AND PIG BY- PRODUCTS**

**UNIT CODE:** **0811 351 05 A**

**UNIT DESCRIPTION**

This unit covers the competencies required to market pigs, pig products and pig by-products. It involves identifying market channels for pigs, and developing and implementing a marketing strategy.

This standard applies in the pig production industry.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms* *are elaborated in the Range.*** |
| 1. Identify market channels | 1. Market survey is carried out based on the organisation marketing policy. 2. Market is segmented based on market survey report 3. ***Methods of data collection*** are selected based on market segment. 4. ***Data and information collection tools*** are developed based on method of data collection. 5. Market survey data is collected based on tools developed 6. Collected data is organized and analyzed in accordance with acceptable/appropriate statistical procedures. 7. Market survey report is prepared and recommendations given based on findings. 8. List of ***market channels*** is developed based on market survey recommendations. |
| 1. Develop and implement a marketing strategy | 1. Market survey report is adopted based on the organisation policy. 2. Competitive advantage is identified and promoted based on the organisation capacity. 3. ***Products promotions methods*** are selected and implemented based on market segmentation. 4. Products outlets are selected based on identified channels. 5. ***Contractual agreements*** are undertaken, signed off and managed based on agreed terms. 6. Product price is set based on organisation pricing policy. 7. New products are developed and promoted based market survey report. 8. Marketing strategy is reviewed based on performance. 9. Report on pigs and pig products marketing activities is prepared and documented. |

**RANGE OF VARIABLES**

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

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| **VARIABLE** | **RANGE** |
| 1. Methods of data collection May include but not limited to: | * Focus group discussions * Media * KNBS * Observation * Interviews * Forecasting |
| 1. Products promotions methods May include but not limited to: | * Brochures * Flyers * Advertisements * Field days * Products expo * Social media |
| 1. Contractual agreements May include but not limited to: | * Verbal * Written |
| 1. Data and information collection tools May include but not limited to: | * Interview guides * Questionnaire * Observation checklist * Open data kits |
| 1. Market channels May include but not limited to: | * Supermarkets * Farm gate * Hotels * Hawking |

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

**Required Skills**

* The individual needs to demonstrate the following skills:
* Communication
* Analytical
* Entrepreneurship
* Negotiation
* Critical thinking
* Problem solving
* Decision making
* Computer operation
* Listening
* Marketing skills
* Basic research

**Required knowledge**

* The individual needs to demonstrate knowledge of:
* Geography of an area
* Demography.
* Pig production
* Contract management (Law, contractual arrangement)
* Entrepreneurship
* Sales and marketing principles
* Research methodology
* Development of marketing strategy
* Public relations
* Types and development of marketing contracts

**EVIDENCE GUIDE**

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

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| Critical aspects of Competency | 1. Assessment requires evidences that the candidate: 2. Collected and analyzed data using appropriate tools. 3. Prepared and documented a market survey report. 4. Identified organizations competitive advantage and implemented it successfully. 5. Developed and moved new products successfully. 6. Managed supply contractual agreements effectively. 7. Developed and documented organizations’ products marketing strategy. 8. Demonstrated understanding of sales and marketing principles |
| Resource implications | The following resources **MUST** be provided:   1. Access to the relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place 3. Materials relevant to the proposed activity or tasks |
| Methods of Assessment | Competency may be assessed through:   1. Observation 2. Written test 3. Interview 4. Oral questions 5. Third party report 6. Project |
| Context for Assessment | Assessment may be conducted in:   1. On-the-job 2. Off-the-job 3. Workplace attachment |
| Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |