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**REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARDS**

**FOR**

**PIG PRODUCTION OPERATOR**

**LEVEL 3**



TVET CDACC

P.O. BOX 15745-00100

NAIROBI

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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 producer Certificate level 3. These Occupational Standards will also be the bass 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 Agriculture sector’s growth and sustainable development.

**PRINCIPAL SECRETARY, VOCATIONAL AND TECHNICAL TRAINING**

**MINISTRY OF EDUCATION**

# 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 Agriculture 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 producer level 3. 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.

**CHAIRPERSON**

**TVET CDACC**

# 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 Agriculture 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 goes 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.

**CHAIRPERSON**

**AGRICULTURE SECTOR SKILLS ADVISORY COMMITTEE**

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# ACRONYMS AND ABBREVIATIONS

BC Basic Competency

CDACC Curriculum Development, Assessment and Certification Council

CPU Central Processing Unit

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 CODE

**AGR/OS/PP/BC/01/3/A**

Industry or sector

Occupational Standards

Occupational area

Type of competency

Competency number

Competency level

Control Version

**OVERVIEW**

The Pig Producer Certificate Level 3 Qualification consists of competencies that an individual must achieve to provide services under instructions in an integrated commercial pig farm. It involves participating in: construction and maintenance of a pig sty, production of pig stock, production of pig feeds, marketing of pigs and pig products and processing pig products and pig by-products.

The Units of Competency comprising Pig Producer Certificate Level 3 Qualification includes the following:

**BASIC COMPETENCY**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| AGR/OS/PP/BC/01/3/A | Demonstrate communication skills |
| AGR/OS/PP/BC/02/3/A | Demonstrate Numeracy skills |
| AGR/OS/PP/BC/03/3/A | Demonstrate Digital literacy |
| AGR/OS/PP/BC/04/3/A | Demonstrate entrepreneurial skills |
| AGR/OS/PP/BC/05/3/A | Demonstrate employability skills |
| AGR/OS/PP/BC/06/3/A | Demonstrate environmental literacy |
| AGR/OS/PP/BC/07/3/A | Demonstrate occupational safety and health practices |

**CORE COMPETENCY**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| AGR/OS/PP/CR/01/3/A | Construct pig sty |
| AGR/OS/PP/CR/02/3/A | Produce pig stock |
| AGR/OS/PP/CR/03/3/A | Produce pig feeds |
| AGR/OS/PP/CR/04/3/A | Market pigs and pig products |
| AGR/OS/PP/CR/05/3/A | Process pig products and pig by-products |

# 

# BASIC UNITS OF COMPETENCY

**DEMONSTRATE COMMUNICATION SKILLS**

**UNIT CODE: AGR/OS/PP/BC/01/3/A**

**UNIT DESCRIPTION**

This unit specifies the competencies required to demonstrate communication skills. It involves obtaining and conveying workplace information, speaking English at a basic operational level, participating in workplace meetings and discussions, and completing relevant work-related documents.

**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. Obtain and convey workplace information | 1. Specific and relevant information is accessed from ***appropriate sources*** based on standard procedures 2. Effective questioning, active listening and speaking skills are used to gather and convey information based on communication needs 3. Appropriate ***medium*** is used to transfer information and ideas in accordance with workplace guidelines 4. Appropriate non- verbal communication is used as per the communication needs 5. Appropriate lines of communicationwith supervisors and colleagues are identified and followed based on workplace requirements 6. Location and storage of information is undertaken according to workplace procedures 7. Personal interaction is carried out clearly and concisely according to workplace requirements |
| 1. Speak English at a basic operational level | * 1. Participation in simple conversations with work colleagues is undertaken based on familiar topics   2. Simple verbal instructions and requests are responded to according to workplace guidelines   3. ***Routine procedures*** are provided in accordance with workplace policy   4. Likes, dislikes and preferences are expressed based on individual preference   5. Different forms of expression in English are identified in line with workplace requirements |
| 1. Participate in workplace meetings and discussions | * 1. Team meetings are attended on time according to schedules   2. Own opinions are clearly expressed and those of others are listened to in accordance with workplace guidelines   3. Meeting inputs are provided based on the meeting purpose and established ***protocols***   4. ***Workplace interactions*** are conducted as per organizations’ code of conduct   5. Work-related questions are asked and responded based on set protocols   6. Meetings outcomes are interpreted and implemented as per organizations’ objectives |
| 1. Complete relevant work-related documents | * 1. Range of forms relating to conditions of employment are completed according to workplace procedures   2. Workplace data is recorded based on workplace requirements   3. Errors in recording information are identified and acted upon in accordance with workplace policies   4. Reporting requirements are completed according to organizational guidelines |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Appropriate Sources may include but not limited to: | * Various department heads, * organization documents |
| 1. Medium may include but not limited to: | * Method of communication * Physical media * Mechanical media |
| 1. Routine procedures may include but not limited to: | * Day to day activities |
| 1. Protocols may include but not limited to: | * Procedures for doing a task |
| 1. Workplace interactions may include but not limited to: | * Official inter relations |

**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
* Active Listening
* Communication
* writing
* Interpretation
* Basic Information Technology (IT)

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Minutes writing
* Report writing

**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 | Assessment requires evidence that the candidate:   1. Prepared written communication following standard format of the organization 2. Accessed information using communication equipment 3. Spoken English at a basic operational level 4. Made use of relevant terms as an aid to transfer information effectively 5. Conveyed information effectively adopting the formal or informal communication |
| 1. Resource Implications | The following resources should be provided:   1. Access to 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. Direct Observation   2. Interview   3. Written test |
| 1. Context of Assessment | Competency may be assessed:   1. On the job 2. Off the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE NUMERACY SKILLS**

**UNIT CODE: AGR/OS/PP/BC/02/3/A**

**UNIT DESCRIPTION:**

This unit covers the competencies required to demonstrate numeracy skills. It involves using whole numbers and money up to one hundred thousand for work, Locating, comparing and using highly familiar measurement for work, using highly familiar maps and diagrams for work, identifying and using some common 2D shapes for work and locating specific information in highly familiar tables, graphs and charts for work

**Elements and Performance Criteria**

| **Element** | **Performance Criteria** |
| --- | --- |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element.  ***Bold and italicized terms*** ***are elaborated in the Range*** |
| 1. Use whole numbers for work | 1. Whole numbers and money amount up to 100,000 in highly familiar workplace documents and tasks are named and read according to workplace procedures. 2. Understanding of place value and the role of zero is demonstrate according to standard operating procedures. 3. Halves are recognised and understood in workplace as per Standard operating procedures. 4. Whole numbers and money amounting up to 100,000 are organised in size order and are compared as per workplace procedures. 5. Counting is done in numbers as per standard operating procedures. 6. Addition and subtraction of whole numbers and money up to 100,000 done in accordance with workplace requirement 7. Links between operations of addition and subtraction are clearly described as per job requirement. 8. Reasonableness of outcome with prompting and support is checked as per work requirement. 9. Numerical information is recorded, and the result of the task is communicated using informal language and symbolism as per workplace procedures. |
| 1. Locate, compare and use highly familiar measurement for work | 1. Measurements in highly familiar workplace documents and tasks are located as per standard operating procedures 2. Different units of measurements and their uses are identified in accordance with job specifications 3. The comparative relationship between the units of measurement identified as per standard operating procedures. 4. Understanding of conversion of amounts is demonstrated in accordance with requirements. 5. Informal language is used to compare measurements as per workplace procedures. 6. Digital time is well read and am and pm used in reference to time 7. Calendar used appropriately to record information in accordance with organizational events. 8. Basic measurement information is well read and recorded as per the manuals 9. Additions and subtraction of simple quantities done in workplace as per SOPs. |
| 1. Use highly familiar maps and diagrams for work | 1. Familiar items or places are in highly familiar maps and diagrams in accordance with SOPs 2. Simple symbols and pictorial representations are identified in accordance with familiar maps and diagrams 3. Simple oral directions are given to locate objects as per SOPs 4. Simple oral directions followed to locate objects as per job specifications 5. Understanding of informal directional language is demonstrated as per work procedures. |
| 1. Identify and use some common 2D shapes for work | 1. ***Common two-dimensional* shapes** are identified and named as per SOPs 2. Common objects are described in terms of size and shape as per SOPs 3. Common, every day, informal language is used to compare objects in accordance SOPs 4. Common objects are grouped based on shape, size, colour and features as per job requirements |
| 1. Locate specific Information in highly familiar tables, graphs and charts for work | 1. Features of simple tables identified as per work place procedures 2. Specific numerical information located in highly familiar tables using grid movement (up and down columns and across rows) and key as graph and chart manuals 3. Numerical information and data in highly familiar tables compared using appropriate informal language as per workplace procedures. 4. Information related to relevant workplace tasks as per workplace procedures 5. Features of simple graphs and charts identified as per SOPs 6. Specific numerical information located in highly familiar graphs and charts as per workplace procedures. 7. Numerical information and data compared using appropriate informal language as per SOPs. |

**RANGE**

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. Common two -dimensional shapes: may include but not limited to: | * 1. Round/circle   2. Square   3. Rectangular   4. Triangle |

**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
* Logical thinking
* Computing
* Drawing of graphs
* Applying mathematical formulas
* Analytical

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Types of common shapes
* Differentiation between two dimensional shapes / objects
* Formulae for calculating area and volume
* Types and purpose of measuring instruments
* Units of measurement and abbreviations
* Fundamental operations (addition, subtraction, division, multiplication)
* Rounding techniques
* Types of fractions
* Different types of tables and graphs
* Meaning of graphs, such as increasing, decreasing, and constant value
* Preparation of basic data, tables & graphs

**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 | Assessment requires evidence that the candidate:   * 1. Measured objects or materials as per job requirements   2. Used calculator to perform the four fundamental operations   3. Performed calculations involving money up to one hundred thousand   4. Performed conversions between hours, minutes and seconds   5. Calculated area and volume of regular shapes   6. Created tables and graphs to represent and interpret information | |
| 1. Resource Implications for competence assessment | The following resources should be provided:   1. Access to 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. Written Test   2. Interview   3. Oral Questioning   4. Demonstration |
| 1. Context of Assessment | Competency may be assessed:   1. On the job 2. Off the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE DIGITAL LITERACY**

**UNIT CODE: AGR/OS/PP/BC/03/3/A**

**UNIT DESCRIPTION**

This unit covers the competencies required to demonstrate digital literacy in a working environment. It entails identifying computer software and hardware, applying security measures to data, hardware, software, applying computer software in solving tasks and applying internet and email in communication at workplace.

**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 computer software and hardware | * 1. ***Computer software*** are identified according to manufacturer’s specification   2. ***Appropriate computer hardware*** is identified according to manufacturer’s specification |
| 1. Apply security measures to data, hardware, software | * 1. ***Data security and privacy are classified*** in accordance with the technological situation   2. ***Security and control measures*** are applied in accordance with laws governing protection of ICT   3. Computer threats and crimes are detected in accordance with information management guidelines.   4. Protection against computer crimes is undertaken in accordance with laws governing protection of ICT |
| 1. Apply computer software in solving tasks | * 1. Basic ***word processing concepts*** are applied in resolving workplace tasks as per job requirement.   2. ***Word processing utilities*** are applied in accordance with workplace procedures   3. Data is manipulated on worksheet in accordance with office procedures |
| 1. Apply internet and email in communication at workplace | * 1. Electronic mail is applied in workplace communication in accordance with office procedures   2. Office internet functions are defined and executed in accordance with office procedures   3. ***Network configuration*** and uses are determined in accordance with office operations procedures |

**RANGE**

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. Computer software may include but not limited to: | * Operating system * MS office * Web browser   Media players |
| 1. Computer hardware may include but not limited to: | * Computer Case * Monitor * Keyboard * Mouse * Hard Disk Drive * Motherboard * Video Card |
| 1. Data security and privacy may include but not limited to: | * Confidentiality * Cloud computing * Confidentiality * Cyber terrorism * Integrity -but-curious data serving |
| 1. Security and control measures may include but not limited to: | * Countermeasures and risk reduction * Cyber threat issues * Risk management |
| 1. Word processing concepts may include but not limited to: | 1. Create 2. Edit 3. Print 4. Documents |

**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 skills
* Interpretation
* Typing
* Communication
* Computing skills
* Basic ICT skills

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Input and output devices
* Central processing Unit (CPU)
* Peripherals
* Storage Media
* Software concept
* Types of concept
* Function of computer software
* Data security and privacy
* Security threats and control measures
* Computer crimes
* Detection and protection of computer crimes
* Laws governing protection of ICT
* Word processing;
* Functions and concepts of word processing.
* Documents and tables creation and manipulations
* Mail merging
* Word processing utilities
* Spread sheet;
* Meaning, formulae, function and charts, uses, layout, data manipulation and application to cell
* Networking and Internet;
* Meaning, functions and uses of networking and internet.
* Electronic mail and world wide web
* Emerging trends and issues in ICT;
* Identify and apply emerging trends and issues in ICT
* Challenges posed by emerging trends and issues

**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 | Assessment requires evidence that the candidate:   * 1. Identified input, output, CPU and storage media devices of computers in accordance to computer specification   2. Identified concepts, types and functions of computer software according to operation manual   3. Identified and controlled security threats   4. Detected and protected computer crimes   5. Applied word processing in office tasks   6. Prepared work sheet and applied data to the cells in accordance to workplace procedures   7. Used Electronic Mail for office communication as per workplace procedure   8. Applied internet and World Wide Web for office tasks in accordance with office procedures   9. Applied laws governing protection of ICT |
| 1. Resource Implications for competence assessment | The following resources should be provided:   1. Access to 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. Written Test   2. Observation   3. Practical assignment   4. Interview   5. Oral Questioning |
| 1. Context of Assessment | Competency may be assessed:   1. On the job 2. Off the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE ENTREPRENEURIAL SKILLS**

**UNIT CODE : AGR/OS/PP/BC/04/3/A**

**UNIT DESCRIPTION**

This unit specifies the competencies required to demonstrate Entrepreneurial skills. It involves developing entrepreneurial culture, identifying entrepreneurial opportunities, starting, operating and growing a small business.

**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 entrepreneurial culture | 1. ***Entrepreneurship terminologies*** are defined following established procedures. 2. Contribution of entrepreneurship towards national development is identified in accordance to national development goals 3. Self-employment benefit are identified and emphasized to help create a positive attitude 4. Cultural factors that promote or inhibit entrepreneurial development areidentified and emphasis made on entrepreneurial promotion 5. Ways of managing factors that inhibit development of entrepreneurial culture are identified in accordance withcultural background and national social economic situation |
| 1. Identify entrepreneurial opportunities | 1. Myths associated with entrepreneurship, types of entrepreneurs and characteristics of entrepreneurship are determined in accordance with the set procedures 2. Identification of ***sources of business ideas,*** generation of business ideas is undertaken in accordance with the existing procedure 3. Evaluation of business opportunities is undertaken according to prevailing office procedures 4. Competencies are matched with business opportunities in accordance with business practices. |
| 1. Start a small business | Factors to consider when starting a small business are identified according to business sector.   1. ***Forms of business ownership*** are identified and procedure of starting a small business stipulated according to relevant legal requirements 2. Procedure of starting a small business is identified as per the legal requirements 3. Challenges faced when starting a small business are identified and mitigating factors provided for in accordance prevailing legal and regulatory requirement 4. Resource requirement for a small business are specified according to nature of business 5. Business life cycle is projected as per the nature of business and national social economic situation |
| 1. Operate a small business | 1. Relevant terms are defined in accordance with the set rules 2. Small business record is maintained in accordance with office procedures 3. Business support services are set up in accordance with the nature and size of business 4. Marketing activities are effected according to the nature and size of business 5. Small enterprise business plan is prepared depending on the size and nature of business and the client specification 6. Small business resources are run for efficiency and profitability 7. Small business records are kept for decision making purposes 8. Word processing concepts are applied in the management of small business according to office procedures 9. Basic computer application software and emerging trends and concerns are applied in small business management in accordance with office procedures |
| 1. Grow a small business | 1. Methods of growing/expanding a small business are identified and implemented in accordance with growth schedule 2. Resources for growing small business are identified and implementing 3. Small business growth plans are prepared according to growth schedule 4. ICT and small business growth schedule is prepared in accordance with office procedures 5. Use of computers and technology is incorporated in small scale business growth schedule in accordance with technological trends 6. Social media is used for business growth and profitability 7. Emerging issues and trends are considered in accordance with business growth schedule and activities 8. Community interest is built in product/service according to growth plan 9. Business communication is enhanced according to business communication planand profitability 10. Basic business growth strategies are identified and implemented for increased profitability 11. Word processing concepts are applied in growing of small business according to office procedures 12. Basic computer application software, programming and emerging trends and concerns are applied in small business growth in accordance with office procedures for growth and profitability |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Entrepreneurship terminologies include but not limited to: | * Intrapreneurship * Enterprise * Business vision. Mission, core values, objectives |
| 1. Sources of business ideas may include but not limited to: | |  | | --- | | * Brainstorming * Personal hobbies * Newspapers, magazines, * Friends and relatives * Accounting/Administrative work * Modern trends and concerns | |
| 1. Forms of business ownership may include but not limited to: | * Sole proprietorship * Partnership * Limited Company * Unlimited Company |

**REQUIRED SKILLS AND KNOWLEDGE**

**Required Skills**

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

The individual needs to demonstrate the following skills:

* Marketing skills
* Advertising
* Basic book-keeping
* accounting skills
* Communication skills

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Public relations concepts
* Basic product promotion strategies
* Basic market and feasibility studies
* Basic business ethics
* Building customer relations
* Business models and strategies
* Types and categories of businesses
* Business internal controls
* Relevant national and local legislation and regulations
* Basic quality control and assurance concepts
* Building relations with customer and employees
* Building competitive advantage of the enterprise

**EVIDENCE GUIDE**

This section describes the required skills which supports performance. These skills will need to be considered in the learning and assessment process.

|  |  |  |
| --- | --- | --- |
| 1. Critical aspects of Competency | Assessment requires evidence that the candidate:   |  | | --- | | 1. Demonstrated basic entrepreneurial skills 2. Demonstrated ability to conceptualize and plan a micro/small enterprise 3. Demonstrated ability to manage/operate a micro/small-scale business 4. Demonstrated basic marketing skills | |
| 1. Resource Implications for assessment | The following resources should be provided:   1. Access to 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 in this unit may be assessed through:   |  |  | | --- | --- | | 3.1 Written tests  3.2 Oral Questioning  3.3 Observation  3.4 Third Party Report |  | |
| 1. Context of Assessment | |  | | --- | | Competency may be assessed:  4.1 On the job  4.2 Off the job  4.3 During industrial attachment | |  | |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE EMPLOYABILITY SKILLS**

**UNIT CODE: AGR/OS/PP/BC/05/3/A**

**UNIT DESCRIPTON**

This unit covers competencies required to demonstrate employability skills. It involves conducting self-management, demonstrating critical safe work habits, demonstrating workplace learning and workplace ethics.

**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. Conduct self-management | 1. Personal vision, mission and goals are formulated based on potential and in relation to organization objectives 2. Emotional intelligence is demonstrated as per workplace requirements. 3. Individual performance is evaluated ~~and monitored~~ according to the agreed targets. 4. Assertiveness is developed and maintained based on the requirements of the job. 5. Accountability and responsibility for own actions are demonstrated based on workplace instructions. 6. Self-esteem and a positive self-image are developed and maintained based on values. 7. Time management, attendance and punctuality are observed as per the organization policy. 8. Goals are managed as per the organization’s objectives 9. Self-strengths and weaknesses are identified based on personal objectives |
| 1. Demonstrate critical safe work habits | 1. Stress is managed in accordance with workplace policy. 2. Punctuality and time consciousness is demonstrated in line with workplace policy. 3. Personal objectives are integrated with organization goals based on organization’s strategic plan. 4. ***Resources*** are utilized in accordance with workplace policy. 5. Work priorities are set in accordance to workplace goals and objectives. 6. Leisure time is recognized and utilized in line with personal objectives. 7. ***Drugs and substances of abuse*** are identified and avoided based on workplace policy. 8. HIV and AIDS prevention awareness is demonstrated in line with workplace policy. 9. Safety consciousness is demonstrated in the workplace based on organization safety policy. 10. ***Emerging issues*** are identified and dealt with in accordance with organization policy. |
| 1. Demonstrate workplace learning | * 1. Learning opportunities are sought and managed based on job requirement and organization policy.   2. Improvement in performance is demonstrated based on courses attended.   3. Application of learning is demonstrated in both technical and non-technical aspects based on requirements of the job   4. Time and effort is invested in learning new skills based on job requirements   5. Initiative is taken to create more effective and efficient processes and procedures in line with workplace policy.   6. New systems are developed and maintained in accordance with the requirements of the job.   7. Awareness of personal role in workplace ***innovation*** is demonstrated based on requirements of the job. |
| 1. Demonstrate workplace ethics | 1. Policies and guidelines are observed as per the workplace requirements 2. Self-worth and professionalism is exercised in line with personal goals and organizational policies 3. Code of conduct is observed as per the workplace requirements 4. Integrity is demonstrated as per legal requirement |

**RANGE**

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

|  |  |
| --- | --- |
| **Range** | **Variable** |
| 1. Drug and substance abuse may include but not limited to: | Commonly abused   1. Alcohol 2. Tobacco 3. Miraa 4. Over-the-counter drugs 5. Cocaine 6. Bhang 7. Glue |
| 1. Feedback may include but not limited to: | 1. Verbal 2. Written 3. Informal 4. Formal |
| 1. Team may include but not limited to: | 1. Small work group 2. Staff in a section/department 3. Inter-agency group |
| 1. Innovation may include but not limited to: | 1. New ideas 2. Original ideas 3. Different ideas 4. Methods/procedures 5. Processes 6. New tools |
| 1. Emerging issues may include but not limited to: | 1. Terrorism 2. Social media 3. National cohesion 4. Open offices |

**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:

1. Communication
2. Critical thinking
3. Observation
4. Organizing
5. Record keeping
6. Problem solving
7. Decision Making
8. Resource utilization

**Required Knowledge**

The individual needs to demonstrate knowledge of:

1. Work values and ethics
2. Company policies
3. Company operations, procedures and standards
4. Occupational Health and safety procedures
5. Fundamental rights at work
6. Personal hygiene practices
7. Workplace communication
8. Concept of time
9. Time management
10. Decision making
11. Types of resources
12. Work planning
13. Organizing work
14. Record keeping
15. Workplace problems and how to deal with them
16. Assertiveness
17. Team work
18. HIV and AIDS
19. Drug and substance abuse
20. Safe work habits
21. Professional growth and development
22. Technology in the workplace
23. Innovation
24. Emerging issues
    * Social media
    * Terrorism
    * National cohesion

**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 | Assessment requires evidence that the candidate:   * 1. Conducted self-management   2. Demonstrated critical safe work habits   3. Demonstrated workplace learning   4. Demonstrated workplace ethics |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency in this unit may be assessed through:   1. Oral questioning 2. Portfolio of evidence 3. Third Party Reports 4. Written tests |
| 1. Context of Assessment | Competency may be assessed:   1. On-the-job 2. Off-the –job 3. During Industrial attachment |
| 1. Guidance information for assessment | | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE ENVIRONMENTAL LITERACY**

**UNIT CODE : AGR/OS/PP/BC/06/3/A**

**UNIT DESCRIPTION**

This unit specifies the competencies required to demonstrate environmental literacy. It involves controlling environmental hazard, controlling environmental pollution and demonstrating sustainable resource use.

**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. Control environmental hazard | 1. Storage and handling methods for environmentally hazardous materials are strictly followed according to environmental regulations and OSHS. 2. Disposal methods of hazardous wastes are followed at all times according to environmental regulations and OSHS. 3. ***PPE*** is used according to OSHS. |
| 1. Control environmental Pollution | * 1. ***Environmental pollution******control measures*** are complied with following standard protocol.   2. Procedures for solid waste management are observed according Environmental Management and Coordination Act 1999   3. Methods for minimizing noise pollution complied following environmental regulations. |
| 1. Demonstrate sustainable use of resource | * 1. Methods for minimizing wastage are complied with.   2. ***Waste management procedures*** are employed following principles of 3Rs (Reduce, Reuse, Recycle)   3. Methods for economizing or reducing ***resource*** consumption are practiced. |

**RANGE**

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. PPE may include but not limited to: | * + Mask   + Gloves   + Goggles   + Safety hat   + Overall   + Hearing protector |
| 1. Environmental pollution control measures may include but not limited to: | * 1. Methods for minimizing or stopping spread and ingestion of airborne particles   2. Methods for minimizing or stopping spread and ingestion of gases and fumes   3. Methods for minimizing or stopping spread and ingestion of liquid wastes |
| 1. Waste management procedures may include but not limited to: | 1. Sorting 2. Storing of items 3. Recycling of items 4. Disposal of items |
| 1. Resources may include but not limited to: | * 1. Electric   2. Water   3. Fuel   4. Telecommunications   5. Supplies  1. Materials |
| 1. Workplace environmental hazards may include but not limited to: | 1. Biological hazards 2. Chemical and dust hazards 3. Physical hazards |

**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
* Observation
* Writing
* Analytical

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Storage methods of environmentally hazardous materials
* Disposal methods of hazardous wastes
* Usage of PPE Environmental regulations
* OSHS
* Types of pollution
* Environmental pollution control measures
* Different solid wastes
* Solid waste management
* Different noise pollution
* Methods of minimizing noise pollution
* Solid Waste Act
* Methods of minimizing wastage
* Waste management procedures
* Economizing of resource consumption
* Principle of 3Rs

**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 | Assessment requires evidence that the candidate:  1.1 Controlled environmental hazard  1.2 Controlled environmental pollution  1.3 Demonstrated sustainable resource use |
| 1. Resource Implications for assessment | The following resources should be provided:   * 1. Workplace with storage facilities   2. Tools, materials and equipment relevant to the tasks (ex. Cleaning tools, cleaning materials, trash bags, etc.)   3. PPE   4. Manuals and references |
| 1. Methods of Assessment | Competency in this unit may be assessed through:  3.1 Observation  3.2 Oral questioning  3.3 Written examination |
| 1. Context of Assessment | Competency may be assessed   1. On the job 2. Off the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE OCCUPATIONAL SAFETY AND HEALTH PRACTICES**

**UNIT CODE: AGR/OS/PP/BC/07/3/A**

**UNIT DESCRIPTION**

This unit specifies the competencies required to practice and promote safety and health at work. This entails preparing to practice safety and health at work and complying and promoting compliance of workers to organization’s occupational safety and health instructions and requirements

**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. Prepare to practice safety and health at work | 1.1 Awareness of legislation that outlines the minimum standards for occupational safety and health requirements/ regulations are emphasized  1.2 Benefits of implementing an occupational safety and health program are identified  1.3 ***Safety requirements/ regulations*** of own work and of other workers are familiarized  1.4 Workplace standards and procedures ***for incidents and Emergencies*** are determined  1.5 ***Prevention and control measures***, including use of ***safety gears/PPE*** (Personal Protective Equipment) to avoid accident, injuries and sickness are identified |
| 1. Comply and promote compliance of workers to organization’s occupational safety and health instructions and requirements | 2.1 Safety instructions and safety signs are followed and disseminated to co-workers  2.2 Safe handling of tools, equipment and materials is learned and shared with co-workers  2.3 Execution of own work and of co-workers is monitored in according to safe work procedures  2.4 Use of safe guards and safety devices is monitored  2.5 Hazards, incidents, injuries and sickness in the workplace are reported properly following standards and procedures |

**RANGE**

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. ***Safety requirements / regulations*** may include but are not limited to: | * Building code * Permit to Operate * Occupational Safety and Health Standards |
| 1. ***Incidents and emergencies*** may include but are not limited to: | * Chemical spills * Equipment/vehicle accidents * Explosion * Fire * Gas leak * Injury to personnel * Structural collapse * Toxic and/or flammable vapors emission. |
| 1. ***Prevention and control measures*** may include but are not limited to: | * Eliminate the hazard * Isolate the hazard * Substitute the hazard with a safer alternative * Use administrative controls to reduce the risk * Use engineering controls to reduce the risk * Use personal protective equipment * Safety, Health and Work Environment Evaluation * Periodic and/or special medical examinations of workers |
| 1. ***Safety devices/ PPEs*** (personal protective equipment) May include but are not limited to: | * Arm/Hand guard, gloves * Eye protection (goggles, shield) * Hearing protection (ear muffs, ear plugs) * Hair Net/cap/bonnet * Hard hat * Face protection (mask, shield) * Apron/Gown/coverall/jump suit * Anti-static suits * High-visibility reflective vest |

**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
* Observation
* Reporting
* Organizing

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Elements of an effective occupational safety and health program
* Benefits of implementing an occupational safety and health program
* Safety requirements of own work and of other workers
* Standard emergency plan and procedures in the workplace
* Different OSH control measures
* General OSH principles
* Work standards and procedures
* Safe handling procedures of tools, equipment’s and materials
* Standard emergency plan and procedures in the workplace
* Different OSH control measures
* Standard accident and illness reporting procedures in the workplace
* Monitoring system on compliance to work safety and health

**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 | Assessment requires evidence that the candidate:   1. Arranged work area and items in accordance with workplace procedures requirements 2. Followed work standards and procedures based on instructions 3. Applied ***Prevention and control measures*** based on instructions 4. Undertook orientations on ***OSH requirements and regulations*** in line with policy. 5. Provided feedback on occupational health and safety as per workplace instructions. 6. Adhered to workplace procedures for reporting hazards, incidents, injuries and sickness to as per workplace policy. 7. Identified and proposed ***OSH-related training needs*** as per workplace policy. |
| 1. Resource Implications for assessment | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency in this unit may be assessed through:   1. Oral questioning 2. Portfolio of evidence 3. Third Party Reports 4. Written tests |
| 1. Context of Assessment | Competency may be assessed:   1. On-the-job 2. Off-the –job 3. During Industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**CORE UNITS OF COMPETENCY**

# CONSTRUCT PIG UNIT

**UNIT CODE: AGR/OS/PP/CR/01/3/A**

**UNIT DESCRIPTION**

This unit covers the competencies required to participate in pig unit construction. It involves identifying and marking pig unit construction site, gathering materials for pig unit construction and participating in pig unit construction activities. It also entails identifying areas of the pig unit requiring repair and maintenance from time to time.

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 mark pig unit construction site | 1. Site for pig unit construction is identified and marked based on pig unit design, constructors’ instructions and ***physical environment*** 2. ***Clearing tools and equipment*** are identified and selected based on nature of the site. 3. ***.Personal protective equipment*** is worn based on the job requirement. 4. .Construction site is cleared based on nature of the site. |
| 1. Gather pig unit construction materials | 1. Materials required for pig unit construction are located based on workplace instructions. 2. Materials required for pig unit construction are collected based on ***pig unit design, objective of the farmer*** and source of funding of the project. 3. Construction materials’ inventory is developed based on workplace instructions. 4. Construction materials are stored based type and nature of the materials. |
| 1. Participate in pig unit construction activities | 1. Construction materials are issued based on pig unit construction activities and workplace instructions. 2. Record of materials issued is prepared based items issued. 3. Utilization of pig unit construction materials is monitored as per workplace policy. 4. Pig unit is prepared for occupation based on recommendations of the completion report and workplace instructions. |
| 1. Identify areas of pig unit requiring repair and maintenance | 1. ***Resources for pig unit maintenance*** are identified and gathered based on the nature and extent of damage. 2. Labour for pig unit repair and maintenance is supervised as per workplace. 3. ***Areas of pig unit upgrading*** are identified and reported based on shorting comings of the original design and current market trends. 4. Pig unit repair and maintenance is carried out based on nature of damage. 5. Repair and maintenance record is prepared 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. Clearing tools and equipment May include but not limited to: | * Pangas * Slashers * Jembe * Hoes * Axe * Mower * Spade * Wheelbarrow * Rake |
| 1. Personal protective equipment May include but not limited to: | * Safety boots * Overall * Dust coat * Hard hat * Reflector jacket * Protective glass * Gloves * Nose musk |
| 1. Pig unit design May include but not limited to: | * Deep litter * Concrete * Slatted floor * Open paddocks |
| 1. Objective of the farmer May include but not limited to: | * Profit making * Non-profit making |
| 1. Resources required for pig unit maintenance May include but not limited to: | * Labour * Raw materials |
| 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
* Analytical
* Basic management skills
* Problem solving
* Decision making
* Critical thinking
* Site selection
* Site preparation

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Considerations in siting a pig unit
* Setting out
* Foundation laying
* Tools, equipment, materials and supplies for pig unit construction
* Types and designs of pig housing
* Types of pig production systems
* Pig housing care, repair and maintenance
* Safety precautions
* Monitoring work progress
* Record keeping

**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. Marked pig unit construction site appropriately. 3. Cleared pig unit construction site appropriately. 4. Selected and used clearing tools correctly. 5. Recorded and stored construction materials appropriately. 6. Developed a comprehensive stores inventory 7. Monitored the utilization of construction resources. 8. Maintained a clear pig unit repair and maintenance records. 9. Demonstrated understanding of materials and supplies for pig unit construction. 10. Demonstrated understanding of types and designs of pig unit. 11. Demonstrated understanding types of pig production systems |
| 1. Resource Implications for competence certification | The following resources **MUST** be provided:   1. Access to 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 |
| 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: AGR/OS/PP/CR/02/3/A**

**UNIT DESCRIPTION**

This unit covers the competencies required to participate in production of pig stock. It involves obtaining information on pig breeding programme development; carrying out routine pig stock management practices and 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. Obtain information on pig breeding programme development | 1. .Information for development of breeding programme is obtained based on the enterprise objectives as per workplace instructions. |
| 1. Carry out routine pig stock management practices | 1. ***Routine pig stock management practices*** are carried outbased on good animal husbandry management guidelines and workplace instructions as per standard operating procedures. 2. Pigs are handled in due regard of their welfare as per ***animal welfare regulations***, good animal husbandry management guidelines and workplace instructions. 3. Routine management practices records are kept and maintained as per good animal husbandry management guidelines and workplace instructions. |
| 1. Carry out health management and bio-security practices | 1. ***Pig stock health management practices*** are carried out based on animal health management and good animal health management guidelines, animal welfare practices, workplace instructions and ***legal requirement*** as per standard operating procedures. 2. ***Pig farm bio-security practices*** are carried out based on good animal husbandry management guidelines, animal welfare practices, workplace instructions and legal requirement as per standard operating procedures. 3. Pig herd health management records are kept and maintained as per good animal health management guidelines, workplace instructions 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. Routine pig stock management practices May include but not limited to: | * Teeth clipping * Docking * Iron injection * Weaning * Weighing * Feeding * Deworming * Watering * Identification * Castration * Fattening * Flushing * Steaming up * Serving/mating * Farrowing |
| 1. Animal welfare regulations May include but not limited to: | * KVB * KSPCA * OIE |
| 1. Pig stock health management practices May include but not limited to: | * Endo-parasite control (deworming) * Ecto-parasite control (acaricide spray) * Disease control (preventive and curative) * Feeding * housing |
| 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 permit |
| 1. Pig farm bio-security practices May include but not limited to: | * Foot bath * Quarantine * Pen disinfection * Equipment sterilization * Fencing * 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:

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

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Data collection methods
* Common pig diseases, their prevention and control measures
* Bio-security measures in a pig farm
* Pig management tools and equipment
* Legal aspects related to livestock production
* Agro ecological zones
* Production systems
* Housing
* Pig breeds
* Sources of pig breeds
* Feeds and feeding requirements
* Costing
* Routine pig management practices
* Marketing

**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 | Assessment requires evidences that the candidate:   1. Carried out routine pig stock management practices timely, correctly and appropriately. 2. Handled pig stock appropriately. 3. Kept and maintained appropriate routine management records. 4. Carried out pig stock health management practices timely, correctly and appropriately. 5. Carried out bio-security practices timely, correctly and appropriately. 6. Kept and maintained appropriate herd health management records. 7. Demonstrated understanding of legal requirements related to livestock production. 8. Demonstrated understanding of herd health management practices. 9. Demonstrated understanding of routine management practices. 10. Demonstrated understanding of bio-security practices. 11. Demonstrated understanding of common pig diseases and their management. |
| 1. Resource Implications for competence certification | The following resources **MUST** be provided:   1. Access to 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 |
| 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: AGR/OS/PP/CR/03/3/A**

**UNIT DESCRIPTION**

This unit covers the competencies required to participate in production of pig feeds. It involves receiving and storing feed formulation raw materials; compounding and storing 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. Receive and store feed compounding raw materials | 1. Goods delivery note is counter checked and signed based on organizations’ procurement policy and workplace instructions. 2. ***Feed compounding raw materials*** are received as per organizations’ procurement policy and workplace instructions. 3. Stores inventory is developed based on organizations’ procurement policy and workplace instructions. 4. ***Feed compounding resources*** are issued based on feed processing activities and workplace instructions. 5. Goods issue notes are prepared based on types of items issued and workplace instructions. 6. Feed formulation raw materials are stored based on type and their ***storage requirements.*** |
| 1. Compound feed ration | 1. Pig feed formula is acquired based on the ***pig feed type*** to produce 2. Feed ingredients are quantified and weighed based on acquired formula and workplace instructions. 3. Feed ingredients are ***pre-prepared*** based on type, form and workplace instructions. 4. Ingredients are mixed, weighed and packaged and labeled based on workplace instructions. 5. Pig feeds are stored based ontype and products’ storage requirements. 6. Conditions of Pig feeds and raw materials are periodically monitored for quality 7. Wastes are managed and disposed based on ***environmental protection regulations*** and workplace instructions. 8. ***Feed compounding tools and equipment*** are identified and used based on user and workplace instructions. 9. Personal protective equipment ***(PPEs)*** are identified and used based on ***legal requirements*** and workplace instructions. 10. Feed processing records are kept and maintained based on workplace instructions. |
| 1. Market and sell pig feeds | 1. Pig feeds are marketed based on workplace instructions. 2. Clients’ are identified and pig feeds delivered based on workplace instructions. 3. Pig feeds are sold based on workplace instructions. 4. Pig feed inventory records are kept as per workplace instruction 5. Pig feeds delivery records are kept and maintained as per workplace instructions. |

**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. Feed formulation raw materials May include but not limited to: | * Grains * Oil seeds products * Root crop products * Legumes * Grain products * Animal products * Vitamins * Minerals * Ashes * Premixes (mineral and vitamin) * Amino acids * Additives (microbial, enzymes, buffers, toxin binders, sweeteners) |
| 1. Feed formulation resources May include but not limited to: | * Finances * Human resource * Infrastructure |
| 1. Storage requirements May include but not limited to: | * Dry place * Dark place * Cool dry place |
| 1. Pig feed types May include but not limited to: | * Starter/creep * Growers * Sow and weaner * Pig finisher/fattener |
| 1. Environmental protection regulations May include but not limited to: | Guidelines by authorities like;   * NEMA * Public Health departments |
| 1. Pre-prepared May include but not limited to: | * Roasting * Drying * Milling * Grinding * Extrusions * Boiling * Soaking * Fermentation |
| 1. Feed compounding tools, equipment and supplies May include but not limited to: | * Feed mixers * Hammer mill * Weighing machines * Shovel * Bagging and sealing machine * Sacks * Buckets * Labels * Feed trolleys * Hard brushes * Hard blooms * Labels and logos |
| 1. PPEs May include but not limited to: | * Nose masks * Ear muffs * Overall * Helmet * Safety boots * Dust coat * Gloves |
| 1. Legal requirements May include but not limited to: | * Occupational safety and health Act 2007 * International Labour organization regulations * Factories Act Cap 514 * Public health Cap 242 * KEBS |

**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
* Problem solving
* Decision making
* Critical thinking
* Basic research
* Mixing
* Weighing
* Batching
* Machine operation and maintenance

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Technology of livestock feed production
* Classification feed ingredients
* Waste management and disposal
* Feed manufacturing tools and machinery
* Handling and storage of raw materials and finished products
* Statutory regulations regarding livestock feed production

**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 | Assessment requires evidences that the candidate:   1. Recorded and stored feed compounding raw materials appropriately. 2. Developed a comprehensive stores inventory. 3. Monitored utilization of feed formulation raw materials. 4. Stored feed formulation raw materials appropriately. 5. Carried out feed compounding raw materials pre-preparation correctly and appropriately. 6. Carried out feed compounding activities correctly. 7. Managed and disposed wastes appropriately. 8. Stored processed pig feeds appropriately. 9. Kept and maintained pig feeds processing records. 10. Marketed and sold pig feeds and maintained sales records. 11. Demonstrated understanding of livestock nutritional requirements. 12. Demonstrated understanding of technology of livestock feed production. 13. Demonstrated understanding of composition of feed ingredients 14. Demonstrated understanding of storage of raw materials and finished products 15. Demonstrated understanding of statutory regulations regarding livestock feed production |
| 1. Resource Implications for competence certification | The following resources **MUST** be provided:   1. Access to 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 |
| 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: AGR/OS/PP/CR/04/3/A**

**UNIT DESCRIPTION**

This unit covers the competencies required to participate in processing of pig products and pig by-products. It involves collecting market data and information, assembling raw materials for processing, processings and storing pig products and pig by-products

**ELEMENTS AND PERFORMANCE CRITERIA**

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| --- | --- |
| **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 ***analyzed*** 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 process | 1. Pig products identified based on market survey report. 2. List of products and by-products to process is developed based on survey recommendation. |
| 1. Assemble raw materials for processing | 1. Necessary ***permits and certifications*** are obtained based on legal and statutory requirements and workplace procedures. 2. ***Processing resources*** are assembled based on workplace instructions. 3. Processing resources are allocated based on task processing manual. 4. Processing schedules are implemented based on workplace procedures. |
| 1. Process and store pig products | 1. Pigs for processing are identified and sorted based on target product. 2. Sorted pigs are slaughtered as per standard operating procedures. 3. ***Pig products*** are processed based on recipe and processing chart, in accordance with standard operating procedures. 4. ***Mechanisms to assure food safety and hygiene*** are implemented based on workplace procedures. 5. Pig products are packaged, labeled and stored based on type, product requirements and workplace procedures. |
| 1. Process and store pig by-products | 1. Raw materials for pig ***by-product processing*** are obtained and sorted based on products manual. 2. Pig by-products are processed as per standard processing procedures. 3. Pig by-products are packaged, labeled and stored based on standard operating procedures. 4. Waste management is carried out based on ***legal requirement documents.*** 5. Processing records and reports 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.

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| --- | --- | --- |
| **VARIABLE** | **RANGE**  May include but not limited to: | |
| 1. Data and information collection tools May include but not limited to: | * Questionnaires * Clients feedback form | |
| 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. Mechanisms to assure food safety and hygiene May include but not limited to: | * Hand sanitizers * Hand wash basin and soap * Running water * Foot bath * PPEs * Food handlers certificate | |
| 1. Pig products May include but not limited to: | * Sausages * Bacon * Lard * Cuts * Brawn * Smokies * Burgers | * 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 * OSH Act 2007 * Factories Act 514 | |

**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
* Problem solving
* Decision making
* Critical thinking
* Meat processing

**Required knowledge**

The individual needs to demonstrate knowledge of:

* 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
* Record keeping in food processing
* Packaging and storage
* Waste management and disposal
* Tools, equipment and supplies in pig processing
* Safety and security 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.

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| --- | --- |
| 1. Critical aspects of Competency | Assessment requires evidences that the candidate:   1. Collected market intelligence. 2. Assembled and allocated resources for processing. 3. Obtained necessary permits and certifications. 4. Processed various pig products and by-products. 5. Implemented mechanisms for food safety and hygiene appropriately. 6. Packaged and stored processed products appropriately. 7. Managed and disposed waste appropriately. 8. Handled and used tool and equipment correctly and appropriately. 9. Used PPEs correctly and appropriately. 10. Kept and maintained production records appropriately. 11. Demonstrated understanding of pork value chain. 12. Demonstrated understanding of food safety and hygiene. 13. Demonstrated understanding of legal and statutory requirements in food processing. 14. Demonstrated understanding of technology of various pig products and by-products |
| 1. Resource Implications for competence certification | The following resources **MUST** be provided:   1. Access to 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 |
| 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: AGR/OS/PP/CR/05/3/A**

**UNIT DESCRIPTION**

This unit covers the competencies required to participate in marketing of pigs, pig products and pig by -products. It involves implementing marketing strategy and selling of pigs, pig products and by products.

This standard applies in the pig production industry.

**ELEMENTS AND PERFORMANCE CRITERIA**

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| --- | --- |
| **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. Implement marketing strategy | 1. ***Market intelligence and information*** are collected based on market trends. 2. ***Clients’ feedback is gathered*** based on workplace procedures. 3. ***Product promotion materials*** are distributed based on workplace instructions. |
| 1. Sale of Pigs, Pig products and by- products | 1. ***Pig Products outlets*** are manned as per workplace policy. 2. Pig Product price is shared based on market. 3. ***Pig products*** are distributed based on workplace instructions. 4. Pig products price list is displayed as per workplace instructions. 5. ***Pig Sales records*** are kept 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. Market intelligence/information May include but not limited to: | * Competitor price * Number of competitors * Competing products * Competitor information |
| 1. Clients’ feedback May include but not limited to: | * Requests for stock adjustments * Discounts * Packaging adjustments * Complaints * Compliments |
| 1. Products promotions materials May include but not limited to: | * Brochures * Flyers * Advertisements |
| 1. Products outlets May include but not limited to: | * Farm gate * Shops * Butchery * Supermarkets * Hotels |
| 1. Organizations’ products May include but not limited to: | * Pig farm * By-products (manure, bio-gas, skin) * Processed products (sausages, bacon, brawn) * Meat cuts (pork, ham, loin, rib) |
| 1. Sales records May include but not limited to: | * Number of items sold * Daily sales * Sales balance * Cash collected |

**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
* Problem solving
* Decision making
* Critical thinking
* Marketing skills
* Selling skills
* Information gathering

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Sales and marketing principles
* Information gathering methodology
* Market channels
* Distribution channels
* Types and development of marketing contracts
* Marketing tools

**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 | Assessment requires evidences that the candidate:   1. Gathered clients’ feedback appropriately. 2. Distributed product promotion materials effectively. 3. Manned product outlets and distributed the organization’s products appropriately. 4. Kept and maintained sales records on pig and pig products appropriately. 5. Demonstrated understanding of principles of sales and marketing. 6. Demonstrated understanding of market and distribution channels. 7. Collected market intelligence. 8. Assembled and allocated resources for processing. 9. Obtained necessary permits and certifications. 10. Processed various pig products and by-products. 11. Implemented mechanisms for food safety and hygiene appropriately. 12. Packaged and stored processed products appropriately. 13. Managed and disposed waste appropriately. 14. Handled and used tool and equipment correctly and appropriately. 15. Used PPEs correctly and appropriately. 16. Kept and maintained production records appropriately. 17. Demonstrated understanding of pork value chain. 18. Demonstrated understanding of food safety and hygiene. 19. Demonstrated understanding of legal and statutory requirements in food processing. 20. Demonstrated understanding of technology of various pig products and by-products |
| 1. Resource Implications for competence certification | The following resources **MUST** be provided:   1. Access to 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 |
| 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. |