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**REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARDS**

**FOR**

**BROILER PRODUCTION OPERATOR**

**LEVEL 3**

****

**TVET CDACC**

**P.O. BOX 15745-00100**

**NAIROBI**

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# FOREWORD

Agriculture plays an important role in Kenya’s economy. This importance is reflected in the positive correlation between growth in the agricultural sector and that of the national economy. Kenya’s economy registered a growth of 3.3% between 2013 and 2014; agriculture was the leading sector which contributed 27.3% to the Gross Domestic Product (GDP) in 2014. In this regard, crops, animal production, and fishing and aquaculture contributed 19.7%, 4.9% and 0.8% respectively (25.4%), while the balance of 1.9% came from forestry and other support activities. Like most countries in Africa, majority (61%) of Kenya’s population rely on agriculture for employment despite the challenges of climate change, soil degradation and increasing population pressure. In order to enhance the productivity of the work force and ensure a productive and innovative agricultural sector, as well as food security, meaningful education and training of all people involved is of utmost importance.

In the past Agricultural Technical and Vocational Education and Training (ATVET) did not always receive adequate attention from policy-makers. The education system emphasized on acquiring knowledge rather than skills development. This resulted to most farmers and the stakeholders in agriculture lacking the requisite skills. Current reforms in the education system aim at addressing this challenge by reforming the curriculum, its delivery and its assessment. These reforms can only be achieved through Competency Based Education and Training (CBET) approach. The reforms demands for a competency based curriculum which is a tool that will aid in the development of skills, knowledge and attitudes of the farmers. Such training will improve crop and animal husbandry skills which will in turn contribute to increased productivity and improvement of agriculture in the country. Ideally, this education and training will not only include farmers, but all professions involved in agriculture

These Occupational Standards as such presents us with a base for developing curricula for training in the poultry sub-sector and presents the basis for content development for the curricula in Poultry Production Operations Level 3. It will lead to a situation where the trainees will gain skills required in their occupation/jobs. The curriculum to be developed based on these OS will revolutionalize the Agriculture sector in Kenya.

**PRINCIPAL SECRETARY,   
STATE DEPARTMENT OF LIVESTOCK**

**MINISTRY OF AGRICULTURE, LIVESTOCK, FISHERIES AND IRRIGATION**

# PREFACE

Poultry farming has been on the increase in the last ten years due to diminishing land size, high population density and the escalating un-employment levels in formal sector. It contributes to the lives of 21 million Kenyans and 6.1% of the agricultural GDP. There are approximately 32 million birds in Kenya out of which 76% are free ranging indigenous chicken, 8% are broilers and 14% commercial layers. The indigenous poultry production involves 75% of rural households. As of 2011, it was reported that approximately 71% of eggs and poultry meat in Kenya are derived from indigenous poultry. In 2006, it was reported that commercial poultry production constitutes 23.8% of the total poultry population, with broilers representing 16.2% and layers another 7.8%. Other poultry species such as ducks, guinea fowl, Quails and turkeys comprise about 2.2% of the total poultry population. The industry is therefore is supposed to play a strategic role in the ongoing socio economic pillar under the vision 2030.

However, the industry has seen slow growth over the past years due to lack of skills and increasing costs of production. This is despite the fact that the sub-sector contributes positively to wealth creation, poverty alleviation, and gender equity especially in the rural areas. The industry contributes to the macro economy by generating incomes for the value chain actors, creation of employment opportunities for rural people and provision of source of protein for poor families and manure for their gardens.

To address the challenge of lack of skilled labour, a Competency Based curriculum development process was initiated. Using the DACUM methodology Job or Occupational Analysis Chart and later these Occupation standards were developed in collaboration with the industry players and guided by Curriculum Development Assessment and Certification Council (CDACC). 11 Jobs/Occupations were identified. The information generated from the task analysis was also used to develop the Units of competences for each job. This was done by experts drawn from Technical training institutions, Universities and industry representatives. The result of the analysis was to the realization of Occupational Standards for 11 jobs along the poultry value chain.

The OS were presented to the Poultry Sector Skills Advisory Committee (PSSAC) who made recommendations for improvement and later submitted to the next stages of approval by the CDACC. The OS development process was a rigorous exercise that involved wide consultations with various stakeholders like expert workers with the aim of enriching it and promoting its acceptance. The end product is a rich and well thought tool that will be used to develop Broiler Production Operations Level 3 curriculum that shall deliver Competence Based Training and produce competent graduates that can employed, entrepreneurs or self-employed in the poultry industry.

**CHAIRPERSON, TVET CDACC.**

**ACKNOWLEDGEMENTS**

These occupational standards were developed through the combined efforts of different stakeholders in the poultry subsector namely private practitioners, Dairy Training Institute (DTI), Animal Health Training institutes (AHITI), regulators and key state departments. We wish to acknowledge the invaluable contribution received from the private sector industry players who provided inputs towards the development of these occupational standards against which this curriculum will be developed.

With the Occupational /Job Analysis charts in hand, the stakeholders provided technical inputs towards the development and completion of this OS. They sat through many hours putting together all the knowledge, skills and attitudes that a Poultry industry worker would require in effectively performing his/ her duties and tasks as per the occupational standards developed.

We are most sincerely thankful to the heads of these institutions who released their staff to join in this important course. Our gratitude goes to the various facilitators that moderated several workshops and ensured that all deliberations and outputs were captured and compiled. These persons did not only demonstrate patience, but also provided leadership by motivating and guiding the groups towards the finalization of this curriculum. We cannot forget to thank the government agencies that regulate the Technical and Vocational Education and Training (TVET) system namely TVET Authority and CDACC through whom guidance and support was provided on this curriculum development.

We are greatly indebted to the Food Security and Drought Resilience Programme (FSDRP) with support of the German Development Cooperation (GIZ), which enabled the implementation of this curriculum development process through the Food Security Project (FSP). In the same breath, we are indebted to the National Coordinator of the GIZ Comprehensive Africa Agricultural Development Programme (CAADP) ATVET project who was instrumental in enabling the smooth and close cooperation between the project and the key government ministries namely Ministry of Agriculture, Livestock, Fisheries and Irrigation (MoALF&I) and Ministry of Education (MoE).

Last but not least, we are grateful to any other person, institution, organization or company who played any role in making this process successful but has not been mentioned. We dearly acknowledge your contribution and support.

**CHAIRPERSON**

**POULTRY SECTOR SKILLS ADVISORY COMMITTEE (PSSAC)**

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# ABBREVIATIONS AND ACRONYMS

|  |  |
| --- | --- |
| 2D | 2 Dimensional |
| 3D | 3 Dimensional |
| AHITI | Animal Health and Industry Training Institute |
| ATVET | Agricultural Technical and Vocational Education and Training |
| AU - IBAR | African Union – InterAfrican Bureau for Animal Resources |
| CAADP | Comprehensive Africa Agricultural Development Programme |
| CAD | Computer Assisted Drawing |
| CBET | Competency Based Education and Training |
| CDACC | Curriculum Development Assessment and Certification Council |
| CEO | Chief Executive Officer |
| DACUM | Develop a Curriculum |
| DTI | Dairy Training Institute |
| DVS | Director of Veterinary Services |
| EMCA | Environmental Management and Conservation Act |
| EMS | Environmental Management Systems |
| FSDRP | Food Security and Drought Resilience Programme |
| FSP | Food Security Project |
| GDP | Gross Domestic Product |
| GMP | Good Manufacturing Practices |
| HACCP | Hazard Analysis Critical Control Point |
| ICT | Information Communication Technology |
| IM | Intra Muscular |
| KCSE | Kenya Certificate of Secondary Education |
| KNQA | Kenya National Qualifications Authority |
| KNQF | Kenya National Qualifications Framework |
| KSPCA | Kenya Society for the Care and Protection of Animals |
| LCD | Liquid Crystal Display |
| MAP | Modified Atmosphere Packaging |
| MoALF&I | Ministry of Agriculture, Livestock, Fisheries and Irrigation |
| MoE | Ministry of Education |
| NCA | National Construction Authority |
| NEMA | National Environmental Management Authority |
| NEPAD | New Partnerships for African Development |
| NGO | Non-Governmental Organization |
| NPCA | NEPAD Planning and Coordinating Agency |
| OIE | World Organization for Animal Health |
| OS | Occupational Standard |
| OSH | Occupational Safety and Health |
| PPE | Personal Protective Equipment |
| PSSAC | Poultry Sector Skills Advisory Committee |
| SOP | Standard Operation Procedures |
| TVET | Technical and Vocational Education and Training |
| TVETA | Technical and Vocational Education and Training Authority |

# 

# **KEY TO UNIT CODE**

**POL /OS/ BR /BC /01/ 3/ A**

Industry or sector

Occupational Standards

Occupational area

Type of competency

Competency number

Competency level

Version control

# OVERVIEW

Broiler Production Operator Level 3 qualification consists of units of competency that a person must achieve to construct poultry structures, manage broiler chick brooding, manage broiler finishers and manage poultry health and welfare.

The units of competency comprising Broiler Production Operator Level 3 qualification include the following:

**BASIC UNITS OF COMPETENCY**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| POL/OS/BR/BC/01/3/A | Demonstrate communication skills |
| POL/OS/BR/BC/02/3/A | Demonstrate numeracy skills |
| POL/OS/BR/BC/03/3/A | Demonstrate digital literacy |
| POL/OS/BR/BC/04/3/A | Demonstrate entrepreneurial skills |
| POL/OS/BR/BC/05/3/A | Demonstrate employability skills |
| POL/OS/BR/BC/06/3/A | Demonstrate environmental literacy |
| POL/OS/BR/BC/07/3/A | Demonstrate occupational safety and health practices |

**CORE UNITS OF COMPETENCY**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| POL/OS/BR/CR/01/3/A | Construct poultry structures |
| POL/OS/BR/CR/02/3/A | Manage broiler chick brooding |
| POL/OS/BR/CR/03/3/A | Mange broiler finishers |
| POL/OS/BR/CR/04/3/A | Manage poultry health and welfare |

# BASIC UNITS OF COMPETENCY

# DEMONSTRATE COMMUNICATION SKILLS

**UNIT CODE: POL/OS/BR/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 | * 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: POL/OS/BR/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: | * + Round/circle   + Square   + Rectangular   + 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  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 DIGITAL LITERACY

**UNIT CODE: POL/OS/BR/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: | * Create * Edit * Print * 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 : POL/OS/BR/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 | 1. Factors to consider when starting a small business are identified according to business sector. 2. ***Forms of business ownership*** are identified and procedure of starting a small business stipulated according to relevant legal requirements 3. Procedure of starting a small business is identified as per the legal requirements 4. Challenges faced when starting a small business are identified and mitigating factors provided for in accordance prevailing legal and regulatory requirement 5. Resource requirement for a small business are specified according to nature of business 6. 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. 5.12 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:   |  |  | | --- | --- | | 1. Written tests 2. Oral Questioning 3. Observation 4. Third Party Report |  | |
| 1. Context of Assessment | |  | | --- | | 4Competency 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 EMPLOYABILITY SKILLS

**UNIT CODE: POL/OS/BR/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   * Alcohol * Tobacco * Miraa * Over-the-counter drugs * Cocaine * Bhang * Glue |
| 1. Feedback may include but not limited to: | * Verbal * Written * Informal * Formal |
| 1. Team may include but not limited to: | * Small work group * Staff in a section/department * Inter-agency group |
| 1. Innovation may include but not limited to: | * New ideas * Original ideas * Different ideas * Methods/procedures * Processes * New tools |
| 1. Emerging issues may include but not limited to: | * Terrorism * Social media * National cohesion * 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:

* Communication
* Critical thinking
* Observation
* Organizing
* Record keeping
* Problem solving
* Decision Making
* Resource utilization

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Work values and ethics
* Company policies
* Company operations, procedures and standards
* Occupational Health and safety procedures
* Fundamental rights at work
* Personal hygiene practices
* Workplace communication
* Concept of time
* Time management
* Decision making
* Types of resources
* Work planning
* Organizing work
* Record keeping
* Workplace problems and how to deal with them
* Assertiveness
* Team work
* HIV and AIDS
* Drug and substance abuse
* Safe work habits
* Professional growth and development
* Technology in the workplace
* Innovation
* 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** **: POL/OS/BR/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: | * + Methods for minimizing or stopping spread and ingestion of airborne particles   + Methods for minimizing or stopping spread and ingestion of gases and fumes   + Methods for minimizing or stopping spread and ingestion of liquid wastes |
| 1. Waste management procedures may include but not limited to: | * Sorting * Storing of items * Recycling of items * Disposal of items |
| 1. Resources may include but not limited to: | * + Electric   + Water   + Fuel   + Telecommunications   + Supplies * Materials |
| 1. Workplace environmental hazards may include but not limited to: | * Biological hazards * Chemical and dust hazards * 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: POL/OS/BR/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 POULTRY STRUCTURES

**UNIT CODE:** **POL/OS/BR/CR/01/3/A**

**UNIT DESCRIPTION:**

This unit specifies the competencies required to construct poultry structures. It involves preparing to construct poultry structures, constructing poultry house structure, installing poultry house structures and equipping poultry house.

|  |  |
| --- | --- |
| **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 construct poultry structures | 1. Construction materials are assembled at construction site according to work place policy 2. Site of the poultry house is cleared based on guidelines in the Poultry Production Manual ***(PPM)*** 3. Personal Protection Equipment and Apparel ***(PPE)***are gathered and donned based on work requirements |
| 1. Construct poultry house structures | 1. ***Poultry house*** layout is pegged according to design 2. Poultry house foundation is excavated based on house design, topography and soil type 3. Poultry house foundation is laid based on type of construction materials and design 4. ***Poultry house parts*** are constructed as per house design and type of construction materials procured. |
| 1. Install poultry house structures | 1. Fixed ***poultry house structures*** are constructed as per provided design and type of construction materials available 2. Movable poultry house structures are installed in the poultry house based on the design and pattern recommended in the PPM |
| 1. Equip poultry house | 1. ***Poultry house equipment*** installed or stored as per specifications in the poultry production manuals |

**RANGE**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Range** | | |
| 1. PPM may include but not limited to | * National Poultry Development Programme Manual * Production manuals by breeding and multiplication organizations like Issa Brown, Cobb, Kenchic and KALRO | | |
| 1. PPE may include but not limited to | * Overalls * Gumboots * Nose and mouth mask | * Goggles * Gloves * Head gear | |
| 1. Poultry house may include but not limited to | * Standard open sided house * Environmentally controlled house * Slated floor house | | * Battery cage house * Deep litter house |
| 1. Poultry house parts may include but not limited to: | * Walls * Floor * Roof |  | |
| 1. Poultry house structures may include but not limited to | * Perches * Cages * Pallets | * Electrical / water lines * Slatted floors * Brooder | |
| 1. Poultry house equipment may include but not limited to | * Waterers * Feeders * Thermometer | * Heat source * Hygrometer | |

**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
* Carpentry
* Fabrication
* Negotiation
* Numeracy
* Observation
* Problem solving

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Measurements and conversions
* Carpentry
* Feeding and watering spacing allowances
* Geometry (symmetry)
* Handling and assessment construction materials
* House orientation
* Occupational health and safety procedures
* Types of poultry house equipment

**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. Gathered and donned appropriate Personal Protective Equipment and (PPE) based on work requirements   2. Constructed poultry house parts as per provided house design and type of construction materials assembled.   3. Constructed poultry house structures as per provided design and type of construction materials available   4. Installed poultry house structures timely as per the pattern recommended in the PPM   5. Poultry house equipped with required poultry house equipment |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Assessment location / Upcoming broiler production farm   2. Personal Protective Equipment and Apparel |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment. |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# MANAGE BROILER CHICK BROODING

**UNIT CODE:** **POL/OS/BR/CR/02/3/A**

**UNIT DESCRIPTION:**

This unit specifies the competencies required to manage broiler chick brooding. It involves preparing chick brooder, acquiring day-old chicks, feeding brooding chicks, managing brooder house micro climate, maintaining brooder hygiene and performing chick vaccination. It also entails controlling poultry vermin, controlling poultry predators and monitoring chick performance.

**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 chick brooder | 1. ***Brooder construction materials*** are assembled as per farm practices 2. Brooder is constructed as per poultry production manual (***PPM***) guidelines. 3. Equip chick brooder with ***chick brooder equipment*** as per poultry production guidelines 4. Cleaning and disinfection of the brooder based on Standard Operation Procedures (SOPs) of poultry production facilities 5. Brooder equipment are cleaned and sterilized as per the SOPs. |
| 1. Acquire day-old chicks | 1. Day-old chicks are transported as per PPM and animal welfare guidelines 2. Placement of day-old chicks is done as per poultry production guidelines in the PPM |
| 1. Feed brooding chicks | 1. Suitable feed type is identified and selected based on flock age 2. Feeding and watering equipment are ***prepared*** based on their condition, position and flock size 3. Adequate amount of chicks feed and water is determined and dispensed based on flock feeding requirements |
| 1. Manage brooder house micro climate | 1. ***Micro climate*** tools and equipment are identified as per environmental conditions and bird requirements. 2. Micro climate variations are assessed as per poultry production manual guidelines. 3. Brooder micro climate is moderated as per the requirements of the birds |
| 1. Maintain brooder hygiene | 1. Bio-safety measures are implemented as per guidelines in the poultry production manual and work place policies 2. Bio-safety conformity is monitored as per work place requirements |
| 1. Perform chick vaccination | 1. Chick vaccination schedule is followed as per farm practice 2. Vaccination equipment are selected as per farm practice 3. Chick vaccination records are kept as per organizational requirements 4. Vaccination procedures are dependent on type of vaccine 5. Post-vaccination behavior is monitored as per farm practices |
| 1. Control poultry vermin | 1. Vermin control measures are installed as per farm requirements 2. Vermin control is executed as per work place practices |
| 1. Control poultry predators | 1. Predator control measures are installed as per work place requirements 2. Predator control is executed as per work place practices |
| 1. Monitor chick performance | 1. ***Poultry vices*** are monitored as per work place practices 2. ***Performance assessment*** equipment and tools are selected based on work place practices 3. Performance assessment is carried out as per work place procedures 4. Chicks are culled as per work place procedures. |

**RANGE**

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

|  |  |  |
| --- | --- | --- |
| **Variable** | **Range** | |
| 1. Brooder construction materials may include but not limited to: | * Cardboard * Wooden pegs * Litter material |  |
| 1. PPM may include but not limited to: | * National Poultry Development Programme Manual * Production manuals by breeding and multiplication organizations like; * Issa Brown * Cobb * Kenchic * KALRO | |
| 1. Chick brooder equipment may include but not limited to: | * Brooder thermometer * Charcoal jiko * Infra-red bulb * Gas burner | * Kerosene lamb * Chick feeder * Chick drinker * Hygrometer |
| 1. Prepared may include but not limited to: | * Removing foreign material * Removing spoilt left over feed * Washing * Drying * Positioning in right pattern and height | |
| 1. Micro climate may include but not to: | * Humidity * Temperature * Light * Ventilation/ air flow | |
| 1. Poultry vices may include but not limited to: | * Pecking * Cannibalism | |
| 1. Poultry Performance assessment may include but not limited to: | * Weighing * Physical appearance * Gait * Behavior | |

**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:

* Carpentry
* Communication
* Handling
* Numeracy
* Observation
* Poultry Handling
* Vaccination skills

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Algebra
* Bio-safety
* Carpentry
* Poultry behavior
* Poultry health
* Poultry management
* Predator control
* Scales and measurement

**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. Set-up chick brooder accurately   2. Maintained the right chick stocking density   3. Moderated brooder micro- climate appropriately   4. Provided adequate amounts of chick feeds timely   5. Observed bio- safety measures   6. Followed vaccination schedule as planned   7. Put in place control measures for vermins and predators. |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Assessment location / broiler production farm   2. Personal Protective Equipment and Apparel |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning |
| 1. Context of Assessment | Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment. |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# MANAGE BROILER FINISHERS

**UNIT CODE:** **POL/OS/BR/CR/03/3/A**

**UNIT DESCRIPTION:**

This unit specifies the competencies required to manage broiler finishers. It involves feeding broiler finishers, maintaining broiler house hygiene, managing broiler health, monitor broiler performance and maintaining broiler production records. It also entails managing broiler dispatch and sanitizing poultry house and equipment.

**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. Feed broiler finishers | 1. Suitable type of poultry feed is identified and assembled based on flock age and work place practices 2. ***Feeding tools and equipment*** are identified and gathered as per poultry production guidelines. 3. Amount of broiler finisher feed is weighed based on broiler finisher flock feeding regime 4. Feeding and watering equipment are ***prepared*** based on their condition, position and flock size 5. Broiler finisher feed and water is dispensed according to amount of weighed feed, water requirements and provided feeding regime |
| 1. Maintain broiler house hygiene | 1. ***Bio-safety structures/facilities*** are identified as per work place requirements 2. Bio-safety measures are carried out as per farm practice 3. Bio-safety conformity is monitored as per work place requirement |
| 1. Manage broiler health | 1. Broiler vaccination schedule is executed as per the farm practice 2. Vaccination equipment are selected as per the farm practice 3. Broiler vaccination records are kept as per organizational requirements 4. ***Vaccination procedures*** are carried out as per type of vaccine 5. ***Post-vaccination behavior*** is monitored as per farm practices 6. Broiler deworming schedule is determined as per poultry production guidelines 7. Vermin control is carried out as per farm practice 8. Broiler health is monitored as per ***animal health guidelines*** |
| 1. Monitor broiler performance | 1. ***Poultry vices*** are monitored as per work place practices 2. Performance assessment equipment and tools are selected as per the farm practice 3. ***Performance assessment*** is carried out as per work place procedures. |
| 1. Maintain broiler production records | 1. Broiler records are selected as per the farm practice 2. Broiler records are kept as per farm practices. |
| 1. Manage broiler dispatch | * 1. Catching of meat birds is done as per farm practices   2. Weighing and sorting is done as per market requirement   3. Packaging and loading of meat poultry is carried out as per animal welfare guidelines   4. Recording of broiler dispatch is done as per the work place requirements.   5. Transportation is carried out as per animal welfare guidelines. |
| 1. Sanitize poultry house and equipment | 1. Detergents, Sanitizers and tools for cleaning boilers’ house /equipment are determined as per poultry guidelines. 2. Litter disposal is performed as per work place procedures 3. Litter removal and cleaning of boilers house is performed as per poultry production guidelines 4. 7.4Sanitization procedures are performed as per manufacturer’s guidelines. |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Feeding tools and equipment may include but not limited to: | * Weighing scale / balance * Grower feeder * Drinker * Scoop |
| 1. Prepared may include but not limited to: | * Removing foreign material * Removing spoilt left-over feed * Washing * Drying   Positioning in right pattern and height |
| 1. Bio-safety structures /facilities may include but not limited to: | * Perimeter fences * Footbath * Showers * Vehicle dip * Hand wash facilities * Disposal pits * Waste bins |
| 1. Vaccination procedures may include but not limited to: | * Vaccine constitution * Water deprivation * Vaccine administration |
| 1. Post-vaccination behavior may include but not limited to: | * Vaccine reactions * Health behavior |
| 1. Animal health guidelines may include but not limited to: | * Animal behavior * Animal examination procedures |
| 1. Poultry vices may include but not limited to: | * Pecking * Cannibalism |
| 1. Performance assessment   may include but not limited to: | * Weighing * Physical appearance * Gait * Behavior |

**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
* Handling
* Numeracy
* Observation
* Poultry Handling
* Record keeping
* Vaccination

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Algebra
* Bio-safety
* Book keeping
* Environmental management
* Handling
* Poultry behavior
* Poultry health
* Poultry management

**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 evidence that the candidate:   * 1. Maintained the recommended stocking density in the broiler finisher house   2. Moderated house micro- climate appropriately   3. Provided broiler feeds correctly   4. Observed all set bio- safety measures   5. Followed broiler vaccination schedule as planned   6. Dispatched mature broilers following correct procedure   7. Cleaned and sanitized poultry house and equipment correctly |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Assessment location / broiler farm   2. Personal Protective Equipment and Apparel   3. Stationery |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning |
| 1. Context of Assessment | Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment. |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# MANAGE POULTRY HEALTH AND WELFARE

**UNIT CODE:** **POL/OS/BR/CR/04/3/A**

**UNIT DESCRIPTION:**

This unit specifies the competencies required to manage poultry health and welfare. It involves maintaining poultry biosecurity, managing poultry vaccination, controlling poultry parasites and managing poultry diseases and vices.

**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. Maintain poultry biosecurity | 1. ***Biosecurity structures and equipment*** are constructed and installed respectively in accordance with the designs and ***poultry production manuals (PPM)*** 2. ***Biosecurity measures*** are determined as per PPM and farm practice 3. Personal Protection Equipment and Apparel are identified, gathered and donned based on job requirements |
| 1. Manage poultry vaccination | 1. Vaccination ***preparations*** are done in accordance with PPM and vaccine manufacturer’s guidelines 2. Poultry vaccine is re-constituted according to manufacturer’s guidelines 3. Poultry vaccines are administered in accordance with developed schedule 4. Vaccinated poultry are observed to ascertain vaccine intake and check for abnormal reactions in accordance with PPM and vaccine manufacturer’s guidelines 5. ***Vaccination details*** are recorded as per PPM guidelines and farm policies |
| 1. Control poultry parasites | 1. Poultry flock performance, behavior and droppings are observed daily to detect presence of internal and external parasites as per PPM guidelines 2. Poultry flock is de-wormed to control internal parasites according to drug manufacturer’s guidelines 3. External parasites are controlled using guidelines in the PPM |
| 1. Manage poultry diseases and vices | 1. Poultry showing signs of disease are isolated for further observation as per PPM guidelines 2. Poultry farm supervisor or qualified veterinary professional is contacted for diagnosis and treatment of sick birds. 3. Poultry are monitored for vices as per farm practice 4. Poultry vices are controlled as per poultry production manuals |

**RANGE**

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

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| **Variable** | **Range** |
| 1. Biosecurity structures and equipment may include but not limited to: | * Boundary fence (electric or stone wall) * Gate * Entry showers, both at the gate and at the house sites * Foot bathes and vehicle sprayers * Hand washing gadgets * Post mortem rooms * Mortality disposal pits * Rodent and pest control traps |
| 1. Poultry production manuals (PPM)   may include but not limited to: | * National Poultry Development Programme Manual * Breeder’s manuals by breeders like Cobb and Issa Brown |
| 1. Biosecurity Measures may include but not limited to: | * Color coded clothing for different parts of the farm e.g. feed stores, egg sorting and flock houses * Human traffic restriction * Showering * Rodent and pest control traps * Personal protective equipment |
| 1. Preparations may include but not limited to: | * Provision of anti-stress nutritional premixes * Feed and water withdrawal * Confirmation of bird numbers to determine dosage * Provision of disinfectant free water * Positioning vaccine receptacles in the poultry house for oral vaccines * Confine and restrain poultry for injectable and ocular-nasal vaccines |
| 1. Vaccination details may include but not limited to: | * Type of vaccine * Type of disease vaccinated against * Age of poultry * Date and time of vaccination * Date of manufacture and expiry of vaccine * Vaccine source and batch number * Number of birds vaccinated * Identification of birds (flock, type, breed) |

**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:

* Cleaning
* Communication
* De-beaking
* Diagnostic
* Farm equipment operation skills
* Negotiation
* Observation
* Poultry handling and care

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Animal health care
* Animal welfare
* Cleaning and disinfection procedures
* De-beaking procedure
* Mode of disease and parasite spread
* Poultry behavior
* Poultry biosecurity measures
* External parts of chicken body
* Poultry nutritional disorders
* Signs of ill health in poultry
* Types of cleaning agents, sanitizers and disinfectant
* Types of external and internal poultry parasites
* Types of vaccines
* Vaccination sites

**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 evidence that the candidate:   * 1. Implemented biosecurity measures   2. Put in place control measures for internal and external parasites   3. Implemented vaccination program |
| 1. Resource Implications | The following resources must be provided:   * 1. Assessment location / poultry production farm   2. Personal Protective Equipment and Apparel   3. Stationery |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment. |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |