



NATIONAL BOARD FOR TECHNICAL EDUCATION

PLOT B BIDA ROAD, P.M.B. 2239, KADUNA, NIGERIA

IN COLLABORATION WITH



NATIONAL OCCUPATIONAL STANDARDS (NOS)

FEED PRODUCTION LEVELS 3 -5

JUNE, 2026



**RENEWED HOPE
IN AGRICULTURE**

PREFACE

The development of the National Occupational Standards (NOS) for the agricultural sector marks another important milestone in Nigeria's commitment to strengthening Technical and Vocational Education and Training (TVET), promoting skills development, and improving workforce productivity. These standards have been developed to provide nationally recognized benchmarks for the knowledge, skills, and competencies required for effective performance in various agricultural occupations.

The National Occupational Standards were developed through a collaborative process involving industry experts, employers, professional bodies, regulatory agencies, training institutions, development partners, and other key stakeholders. Their contributions ensured that the standards reflect current industry practices, emerging technologies, and the competency requirements of the modern agricultural sector.

I wish to express my sincere appreciation to the Honourable Minister of Education for providing the policy direction that made this initiative possible. I also acknowledge the support of the Honourable Minister of Agriculture and Food Security and the Honourable Minister of Livestock Development for their commitment to advancing agricultural skills development in Nigeria.

I extend my profound gratitude to the Tertiary Education Trust Fund (TETFund) for its intervention and support, which facilitated the development of these National Occupational Standards. I also appreciate the invaluable contributions of the Sector Skills Council for Agriculture (SSC4A), members of the Implementation Committee, resource persons, industry practitioners, employers, professional associations, regulatory agencies, the French Embassy in Nigeria, development partners, and all stakeholders who contributed their expertise throughout the development process.

These National Occupational Standards will serve as an important reference for competency-based training, assessment, certification, apprenticeship, Recognition of Prior Learning (RPL), and workforce development within the agricultural sector. It is my expectation that all implementing institutions and industry partners will effectively utilize these standards to enhance the quality, relevance, and competitiveness of agricultural skills development in Nigeria.

I commend all stakeholders for their dedication and commitment to this important national assignment and look forward to the successful implementation of these National Occupational Standards for the benefit of the agricultural sector and the nation as a whole.

Professor Idris M. Bugaje, FNSE
Chairman, Implementation Committee

EXECUTIVE SECRETARY

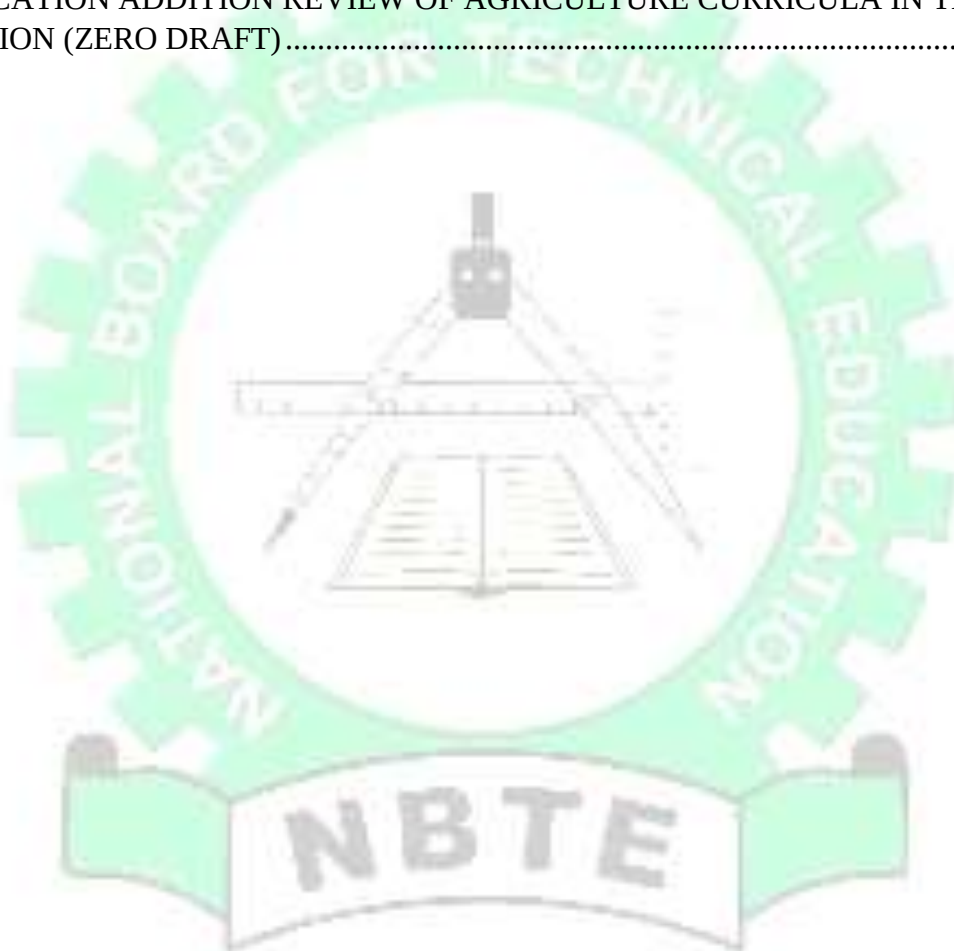
National Board for Technical Education (NBTE), Kaduna

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NATIONAL SKILLS QUALIFICATION (NSQ)



NATIONAL SKILLS QUALIFICATION TABLE LEVEL 3

GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in **Feed Production** for the award of National Skills Qualifications (NSQ). It is aimed at producing NSQ Level 3 candidates with the competencies in **Feed Production**. This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

This qualification is designed to develop competence in **Feed Production**. This is focused on supervising feed production lines, manage quality assurance systems, control production efficiency, team and resource management, and ensure compliance with regulatory standards.

QUALIFICATION REQUIREMENTS

All Candidates must be:

- A. At least sixteen (16) years of age
- B. Medically fit
- C. Mentally fit (Mental alertness)
- D. Achieved NSQ level 2 in Feed Production
- E. Nigerian
- F. Other nationals (should in addition present international passport and residence permit)

QUALIFICATION OBJECTIVES

To achieve this qualification, the learner should be able to:

- i. Comply with occupational health, safety and environmental requirements in feed production
- ii. Communicate effectively with supervisors, colleagues, customers and other stakeholders in feed production
- iii. Work effectively as a member of a team to achieve feed production objectives
- iv. Ensure safe and hygienic practices in feed handling, preparation, and storage to maintain quality and prevent contamination.
- v. Develop competence in feed sampling and analysis to assess nutritive value and dry matter intake for different livestock categories.
- vi. Apply principles of animal nutrition by formulating balanced rations using both manual methods and specialized software tools.
- vii. Supervise and manage feed preparation processes, ensuring compliance with feed safety standards and maintaining quality control protocols.
- viii. Enhance skills in processing and finishing feed products such as pellets and supplements for improved efficiency and palatability.
- ix. Optimize feed rations for cost-effectiveness and sustainability, balancing productivity with economic viability.
- x. Monitor and manage animal health risks linked to nutrition, including metabolic disorders like acidosis and ketosis.
- xi. Lead feed production operations with strategic planning, team supervision, and performance monitoring using KPIs.

- xii. Innovate with advanced feed technologies to improve productivity, profitability, and sustainability in livestock production.

National Skills Qualification (NSQ)

GENERAL GUIDE

Unit Title	Provides a clear explanation of the content of the unit.
Unit Number	The unique number assigned to the unit
Unit Reference	The unique reference number given to each unit at qualification approval by NBTE
Unit Level	Denotes the level of the unit within the National Skills Qualifications Framework NSQF.
Unit Credit Value	The value that has been given to the unit based on the expected learning time for an average learner. 1 credit value = 10 guided learning hours
Unit Purpose	Provides a brief outline of the unit content.
Learning Outcome	A statement of what a learner will know, understand or be able to do, as a result of learning process.
Assessment Criteria	A description of the requirements a learner must achieve to demonstrate that a learning outcome has been met.
Unit Assessment Guidance	Any additional guidance provided to support the assessment of the unit.
Unit Guided Learning Hours	The average number of hours of supervised or directed study time or assessment required to achieve a qualification or unit of qualification.

NATIONAL SKILLS QUALIFICATION TABLE LEVEL 3**FEED PRODUCTION TECHNICIAN**

Unit	Reference No.	Unit Title	Credit Value	Guided Learning Hours	Practice Hours	Remark
001	AGR/FPD/001/L3	Health and Safety	3	30	90	Mandatory
002	AGR/FPD/002/L3	Communication in workplace	3	30	90	Mandatory
003	AGR/FPD/003/L3	Teamwork	3	30	90	Mandatory
004	AGR/FPD/004/L3	Feed Ingredients Identification	4	40	120	Mandatory
005	AGR/FPD/005/L3	Feed Ingredient Handling and Storage	3	30	90	Mandatory
006	AGR/FPD/006/L3	Basic Feed Formulation	4	40	120	Mandatory
007	AGR/FPD/007/L3	Feed Milling Operations	4	40	120	Mandatory
008	AGR/FPD/008/L3	Feed Packaging and Storage	3	30	90	Mandatory
009	AGR/FPD/009/L3	Feed Quality Inspection	3	30	90	Mandatory
010	AGR/FPD/010/L3	Equipment Cleaning and Maintenance	3	30	90	Mandatory
011	AGR/FPD/011/L3	Production Records	3	30	90	Mandatory
TOTAL			36	360	1,080	

OPTIONAL UNITS

Unit	Reference No.	Unit Title	Credit Value	Guided Learning Hours	Practice Hours
012	AGR/FPD/012/L3	Feed Ingredient Sampling	3	30	90
013	AGR/FPD/013/L3	Waste Management	3	30	90
014	AGR/FPD/014/L3	Customer Service in Feed Supply	3	30	90
015	AGR/FPD/015/L3	Digital Record Keeping	3	30	90
TOTAL			12	120	360

QUALIFICATION STRUCTURE

This qualification comprises a total of fifteen (15) Mandatory and optional Units, with a credit value of 12 and 120 Guided Learning Hours (GLH) across the full qualification. One (1) credit is equivalent to ten (10) GLH. Guided Learning Hours are the time a learner spends in the classroom, workshop and laboratory of the Skills Training Centre (STC), being taught, instructed, supervised or assessed by a qualified trainer, facilitator or assessor.

In addition to the GLH, the qualification requires at least twice or thrice the GLH as practice time. Practice time is the time a learner is expected to spend applying the skills of each unit in a real workplace environment, carrying out the same tasks repeatedly until performance becomes consistent, accurate and habitual to the standard the qualification demands. It is undertaken under the guidance of a workplace supervisor, recorded in the learner's logbook and duly endorsed. Practice time is the principal setting where core assessment is conducted. It is through repeated performance in the workplace that a learner's achievement of the Learning Outcomes and Performance Criteria is judged and evidenced. Practice time is an additional requirement to GLH and does not replace them.

To achieve this qualification, the learner must complete all mandatory units, undertake the prescribed practice time, and accumulate the minimum credit value approved by NBTE. Credit is awarded only when a learner has been assessed as competent against all Learning Outcomes and Performance Criteria of a unit.



UNIT 001: HEALTH AND SAFETY

Unit Reference Number: AGR/FPD/001/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 90 hours

Unit Purpose:

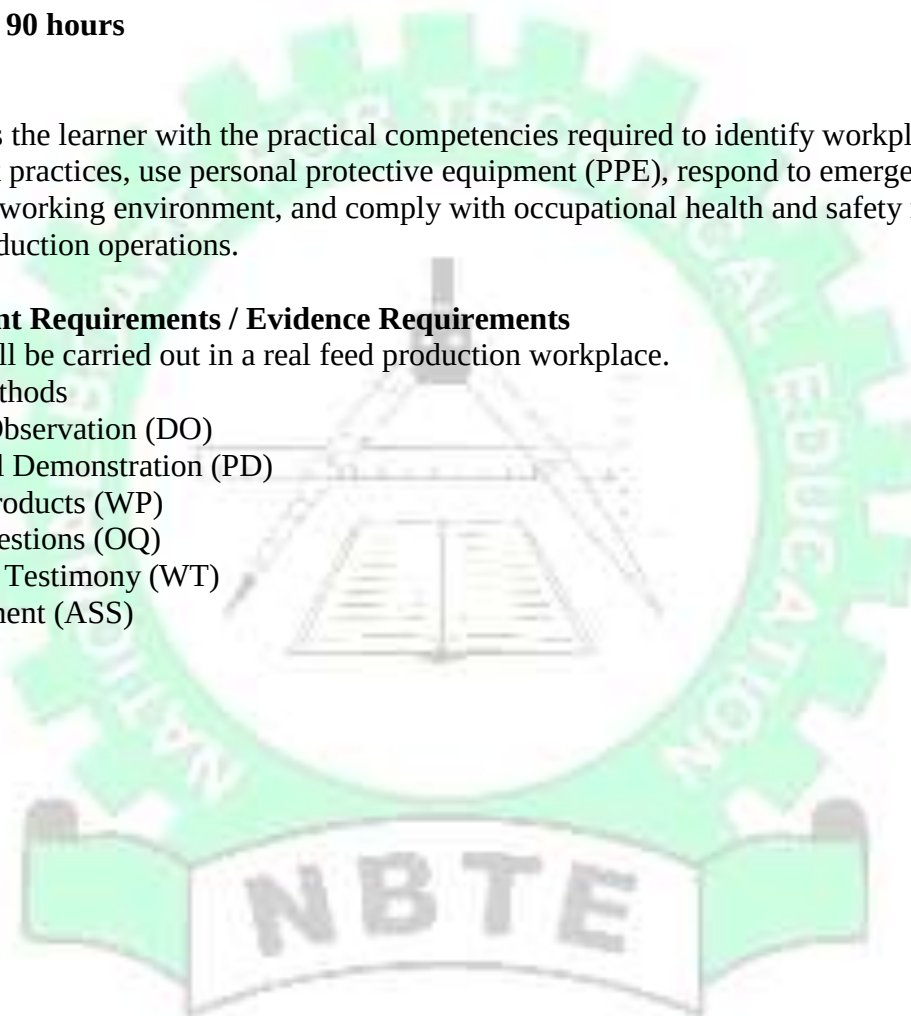
This unit equips the learner with the practical competencies required to identify workplace hazards, apply safe work practices, use personal protective equipment (PPE), respond to emergencies, maintain a safe working environment, and comply with occupational health and safety requirements during feed production operations.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 001: Health and Safety

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Inspect workplace hazards in feed production.	1.1	Inspect work areas before commencing operations.		
	1.2	Identify physical hazards within the feed mill.		
	1.3	Identify chemical hazards associated with feed ingredients and additives.		
	1.4	Identify biological hazards that may contaminate feed products.		
	1.5	Identify mechanical hazards associated with feed processing equipment.		
	1.6	Report identified hazards according to workplace procedures.		
	1.7	Record hazards using approved reporting formats.		
LO2: Apply safe work practices during feed production.	2.1	Wear appropriate personal protective equipment (PPE).		
	2.2	Maintain good housekeeping throughout the workplace.		
	2.3	Follow standard operating procedures during production.		
	2.4	Operate equipment safely.		
	2.5	Handle feed ingredients safely.		
	2.6	Maintain safe movement within the production area.		
	2.7	Demonstrate safe manual handling techniques.		
LO3: Handle hazardous materials safely.	3.1	Identify hazardous chemicals and materials.		
	3.2	Read chemical safety labels and symbols.		
	3.3	Store hazardous materials appropriately.		
	3.4	Handle chemicals according to safety procedures.		
	3.5	Dispose of hazardous waste safely.		
	3.6	Contain accidental spills using approved procedures.		
	3.7	Clean contaminated work areas safely.		
LO4: Respond to	4.1	Identify emergency situations.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
workplace emergencies.	4.2	Activate emergency alarms appropriately.		
	4.3	Evacuate personnel using designated escape routes.		
	4.4	Operate fire extinguishers correctly.		
	4.5	Administer basic first aid within assigned responsibilities.		
	4.6	Report emergencies promptly.		
	4.7	Participate in emergency drills.		
LO5: Maintain a safe and hygienic workplace.	5.1	Clean workstations before production.		
	5.2	Clean equipment after use.		
	5.3	Dispose of production waste appropriately.		
	5.4	Control dust generation during production.		
	5.5	Prevent pest infestation within the facility.		
	5.6	Maintain sanitation facilities.		
	5.7	Verify workplace cleanliness before closing operations.		
LO6: Monitor compliance with health and safety procedures.	6.1	Inspect PPE compliance among workers.		
	6.2	Verify adherence to safety procedures.		
	6.3	Monitor machine guards during operation.		
	6.4	Check safety signs and warning notices.		
	6.5	Identify unsafe acts and conditions.		
	6.6	Report non-compliance according to workplace procedures.		
	6.7	Maintain health and safety records.		
LO7: Demonstrate occupational health and safety practices.	7.1	Perform routine workplace safety inspections.		
	7.2	Demonstrate correct lifting and handling techniques.		
	7.3	Demonstrate safe operation of feed production equipment.		
	7.4	Demonstrate proper use of emergency equipment.		
	7.5	Demonstrate compliance with hygiene protocols.		
	7.6	Demonstrate effective teamwork		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.				
The learner will:		The learner can:										
		during emergency response.										
	7.7	Complete workplace safety documentation accurately.										
Learners Signature:							Date:					
Assessors Signature:							Date:					
IQA Signature (if sampled)							Date:					
EQA Signature (if sampled)							Date:					



UNIT 002: COMMUNICATION IN FEED PRODUCTION

Unit Reference Number: AGR/FPD/002/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose

This unit equips the learner with the practical competencies required to communicate effectively in feed production operations through oral, written, digital and workplace communication methods to ensure efficient production, teamwork, traceability and customer satisfaction.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

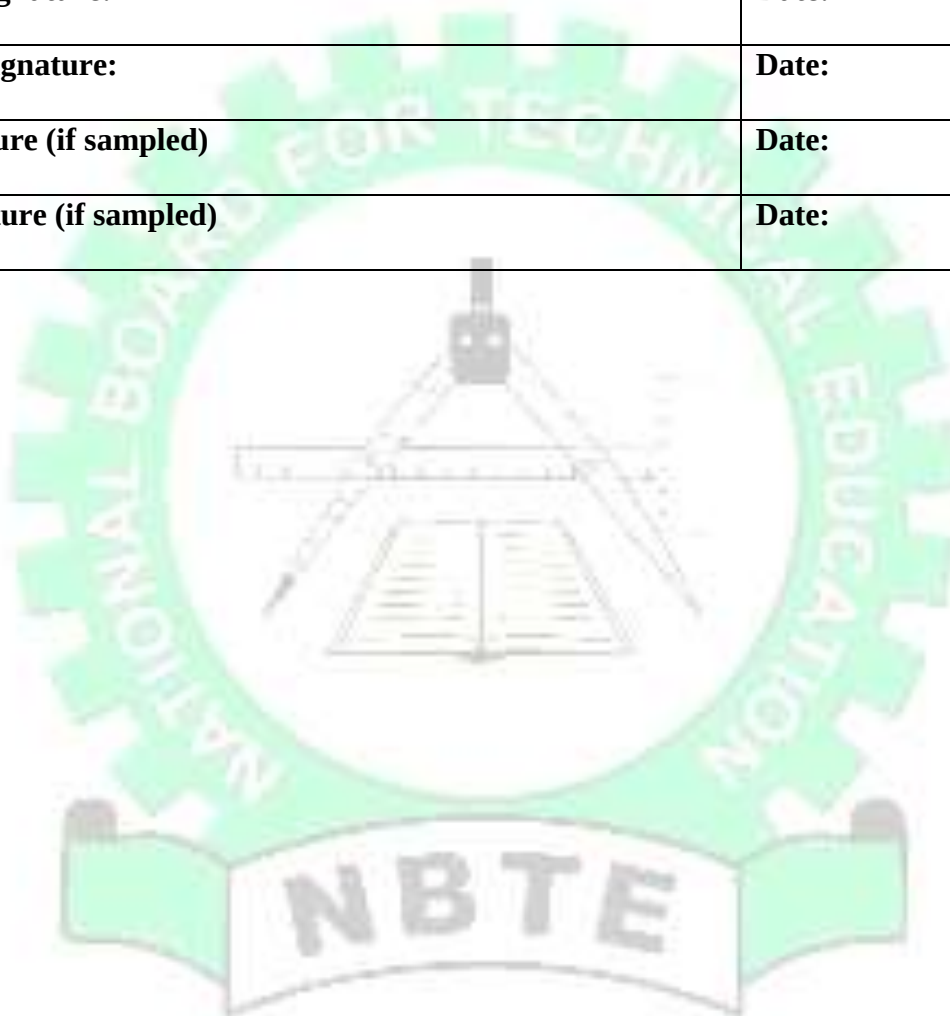


Unit 002: Communication in Feed Production

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Communicate effectively during feed production activities.	1.1	Receive production instructions accurately.		
	1.2	Relay production information clearly to team members.		
	1.3	Use appropriate technical terms during production operations.		
	1.4	Respond appropriately to workplace instructions.		
	1.5	Seek clarification when instructions are unclear.		
	1.6	Report production progress to the supervisor.		
	1.7	Confirm completion of assigned tasks.		
LO2: Prepare workplace records and reports.	2.1	Complete production record sheets accurately.		
	2.2	Record feed ingredient stock.		
	2.3	Record equipment operating data.		
	2.4	Prepare daily production reports.		
	2.5	Record equipment faults and breakdowns.		
	2.6	Document workplace incidents.		
	2.7	Submit completed reports according to workplace procedures.		
LO3: Use communication equipment and digital tools.	3.1	Operate telephones and intercom systems correctly.		
	3.2	Use computers for production data entry.		
	3.3	Operate handheld digital devices for production activities.		
	3.4	Send production information electronically.		
	3.5	Retrieve digital production records.		
	3.6	Protect confidential production information.		
	3.7	Maintain communication equipment properly.		
LO4: Communicate with suppliers and	4.1	Receive feed ingredient delivery information professionally.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
customers.	4.2	Verify delivery documents with suppliers.									
	4.3	Respond to customer enquiries courteously.									
	4.4	Provide accurate product information.									
	4.5	Direct customer complaints to appropriate personnel.									
	4.6	Maintain professional workplace etiquette.									
	4.7	Record customer feedback appropriately.									
LO5: Interpret workplace information.	5.1	Read production schedules.									
	5.2	Interpret feed formulation sheets.									
	5.3	Read equipment operating manuals.									
	5.4	Interpret safety signs and symbols.									
	5.5	Read feed product labels correctly.									
	5.6	Follow written standard operating procedures (SOPs).									
	5.7	Apply instructions from workplace documents.									
LO6: Maintain effective workplace communication.	6.1	Participate in toolbox meetings.									
	6.2	Participate in production briefings.									
	6.3	Share production information with team members.									
	6.4	Communicate workplace hazards promptly.									
	6.5	Report production delays immediately.									
	6.6	Maintain effective communication throughout production operations.									
	6.7	Demonstrate professional workplace behaviour.									
LO7: Demonstrate communication skills during production operations.	7.1	Communicate clearly during machine operation.									
	7.2	Coordinate activities with co-workers during feed production.									
	7.3	Use standard workplace communication procedures.									
	7.4	Maintain accurate production documentation.									
	7.5	Present production information to supervisors.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.				
The learner will:		The learner can:										
	7.6	Demonstrate effective listening skills during production activities.										
	7.7	Complete communication tasks according to organizational procedures.										
Learners Signature:			Date:									
Assessors Signature:			Date:									
IQA Signature (if sampled)			Date:									
EQA Signature (if sampled)			Date:									



UNIT 003: TEAMWORK

Unit Reference Number: AGR/FPD/003/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose:

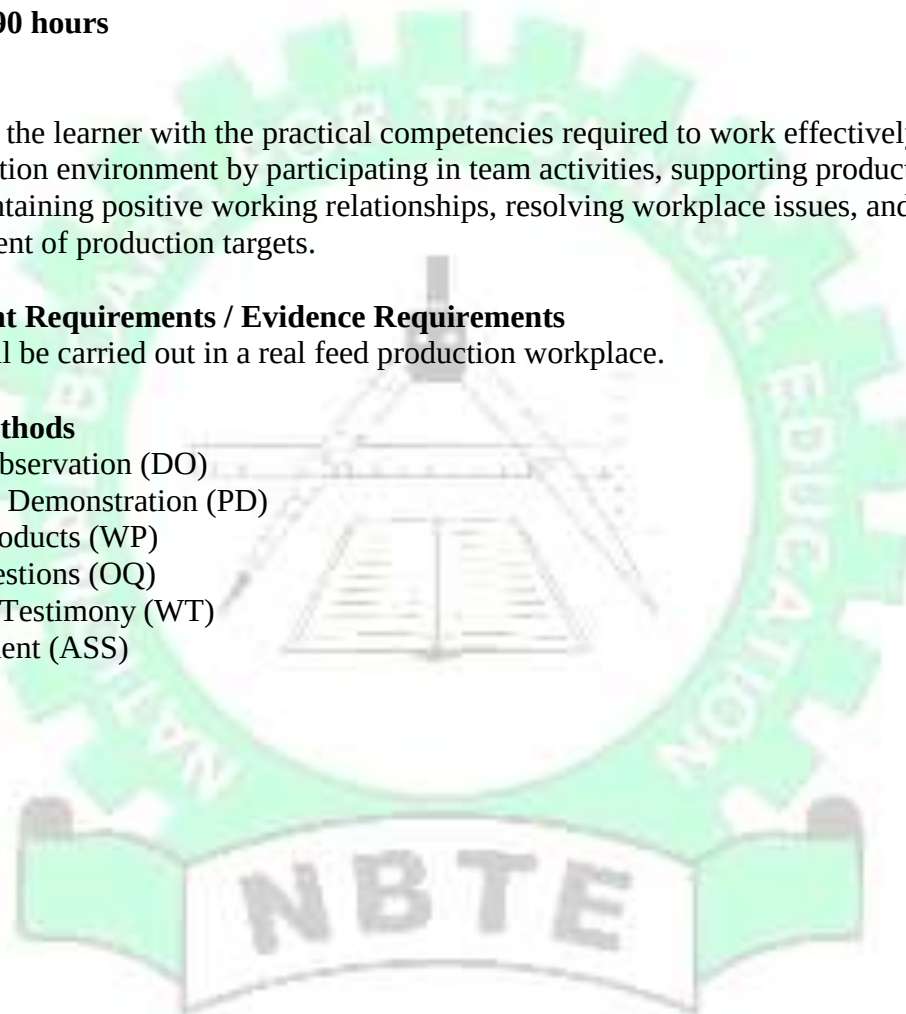
This unit equips the learner with the practical competencies required to work effectively with others in a feed production environment by participating in team activities, supporting production operations, maintaining positive working relationships, resolving workplace issues, and contributing to the achievement of production targets.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 003: Teamwork

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Participate in feed production team activities.	1.1	Report to assigned workstations on time.									
	1.2	Perform assigned production tasks collaboratively.									
	1.3	Assist team members during production activities.									
	1.4	Share production information accurately with team members.									
	1.5	Support team members in achieving production targets.									
	1.6	Demonstrate cooperation during production operations.									
	1.7	Complete assigned duties within specified time.									
LO2: Maintain effective working relationships.	2.1	Demonstrate respect for supervisors and colleagues.									
	2.2	Follow workplace communication protocols.									
	2.3	Maintain positive interpersonal relationships.									
	2.4	Respond appropriately to instructions from supervisors.									
	2.5	Support newly assigned team members during operations.									
	2.6	Demonstrate professionalism during workplace interactions.									
	2.7	Promote teamwork throughout production activities.									
LO3: Coordinate routine production activities with team members.	3.1	Coordinate raw material handling activities.									
	3.2	Coordinate equipment operation with team members.									
	3.3	Coordinate feed packaging operations.									
	3.4	Coordinate workplace cleaning activities.									
	3.5	Coordinate equipment maintenance support activities.									
	3.6	Coordinate production shift handover.									
	3.7	Coordinate completion of production schedules.									
LO4: Resolve	4.1	Identify factors affecting teamwork.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
workplace challenges within assigned responsibilities.	4.2	Report workplace conflicts promptly.		
	4.3	Apply approved conflict resolution procedures.		
	4.4	Cooperate with supervisors during conflict resolution.		
	4.5	Assist in resolving routine production challenges.		
	4.6	Maintain professional conduct during disagreements.		
	4.7	Restore effective teamwork after conflict resolution.		
LO5: Maintain productivity within the production team.	5.1	Perform duties according to production schedules.		
	5.2	Minimize unnecessary production delays.		
	5.3	Support continuous workflow during production.		
	5.4	Maintain quality standards while working with others.		
	5.5	Assist in achieving daily production targets.		
	5.6	Promote efficient utilization of production resources.		
	5.7	Maintain discipline throughout production activities.		
LO6: Participate in workplace health, safety and environmental activities.	6.1	Participate in workplace safety meetings.		
	6.2	Assist in maintaining workplace cleanliness.		
	6.3	Support emergency response activities.		
	6.4	Report unsafe acts and conditions.		
	6.5	Participate in waste management activities.		
	6.6	Promote safe work practices among team members.		
	6.7	Maintain compliance with workplace health and safety requirements.		
LO7: Demonstrate teamwork competencies in feed production	7.1	Demonstrate collaboration during feed ingredient receiving.		
	7.2	Demonstrate teamwork during feed mixing operations.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
operations.	7.3	Demonstrate teamwork during pelleting and processing.									
	7.4	Demonstrate teamwork during packaging operations.									
	7.5	Demonstrate teamwork during equipment cleaning.									
	7.6	Demonstrate teamwork during stock handling activities.									
	7.7	Evaluate team performance and recommend improvements within assigned responsibilities.									
Learners Signature:			Date:								
Assessors Signature:			Date:								
IQA Signature (if sampled)			Date:								
EQA Signature (if sampled)			Date:								

UNIT 004: FEED INGREDIENT IDENTIFICATION

Unit Reference Number: AGR/FPD/004/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose

This unit equips the learner with the practical competencies required to receive, inspect, identify, classify, sample, evaluate and document feed ingredients used in livestock feed production while ensuring compliance with quality, safety and feed manufacturing standards.

Unit Assessment Requirements / Evidence Requirements

1. Assessment shall be carried out in a real feed production workplace.
2. Assessment Methods
3. Direct Observation (DO)
4. Practical Demonstration (PD)
5. Work Products (WP)
6. Oral Questions (OQ)
7. Witness Testimony (WT)
8. Assignment (ASS)



Unit 004: Feed Ingredient Identification

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type				Evidence Ref. Page No.			
The learner will:		The learner can:								
LO1: Recognize common feed ingredients	1.1	Identify cereals (maize, sorghum, and millet) grains.								
	1.2	Identify oilseed meals (soybean, groundnut).								
	1.3	Identify non-conventional feed resources (energy and protein)								
	1.4	Distinguish forage types (hay, silage).								
	1.5	Identify fishmeal and bone meal.								
	1.6	Recognize mineral supplements (salt, limestone).								
	1.7	Distinguish concentrate vs roughage feeds.								
	1.8	Record identified ingredients in a notebook.								
LO2: Differentiate feed categories	2.1	Classify feeds into energy sources.								
	2.2	Classify feeds into protein sources.								
	2.3	Identify mineral-rich feeds.								
	2.4	Recognize vitamin-rich feeds.								
	2.5	Distinguish concentrates from forages.								
	2.6	Group feeds by origin (plant/animal).								
	2.7	Record classification results.								
LO3: Handle feed ingredients safely	3.1	Wash hands before handling feed.								
	3.2	Use clean tools for handling.								
	3.3	Avoid mixing contaminated feed.								
	3.4	Store ingredients separately.								
	3.5	Prevent spillage during handling.								
	3.6	Wear protective clothing if required.								
	3.7	Report unsafe handling practices.								
LO4: Label feed ingredients correctly	4.1	Write ingredient names clearly.								
	4.2	Attach labels to containers.								
	4.3	Record source and date.								
	4.4	Use color codes where applicable.								
	4.5	Maintain legible handwriting.								
	4.6	Replace damaged labels.								
	4.7	Report missing labels.								
LO5: Identify feed by sensory characteristics	5.1	Recognize feed by color.								
	5.2	Identify feed by smell.								
	5.3	Distinguish texture differences.								
	5.4	Detect foreign particles.								
	5.5	Recognize signs of spoilage.								

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	5.6	Compare with reference samples.		
	5.7	Record sensory observations.		
LO6: Document feed identification activities	6.1	Record identified ingredients daily.		
	6.2	Note batch numbers.		
	6.3	Record supplier details.		
	6.4	Maintain notebooks systematically.		
	6.5	Submit records to supervisors.		
	6.6	Keep records safe.		
	6.7	Review records regularly.		
LO7: Report feed identification outcomes	7.1	Summarize identified ingredients.		
	7.2	Report findings to supervisors.		
	7.3	Suggest corrections if misidentified.		
	7.4	Record reporting date.		
	7.5	Maintain confidentiality.		
	7.6	File reports properly.		
	7.7	Follow up on feedback.		

Learners Signature:	Date:
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
EQA Signature (if sampled)	Date:

UNIT 005: FEED INGREDIENT HANDLING AND STORAGE

Unit Reference Number: AGR/FPD/005/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

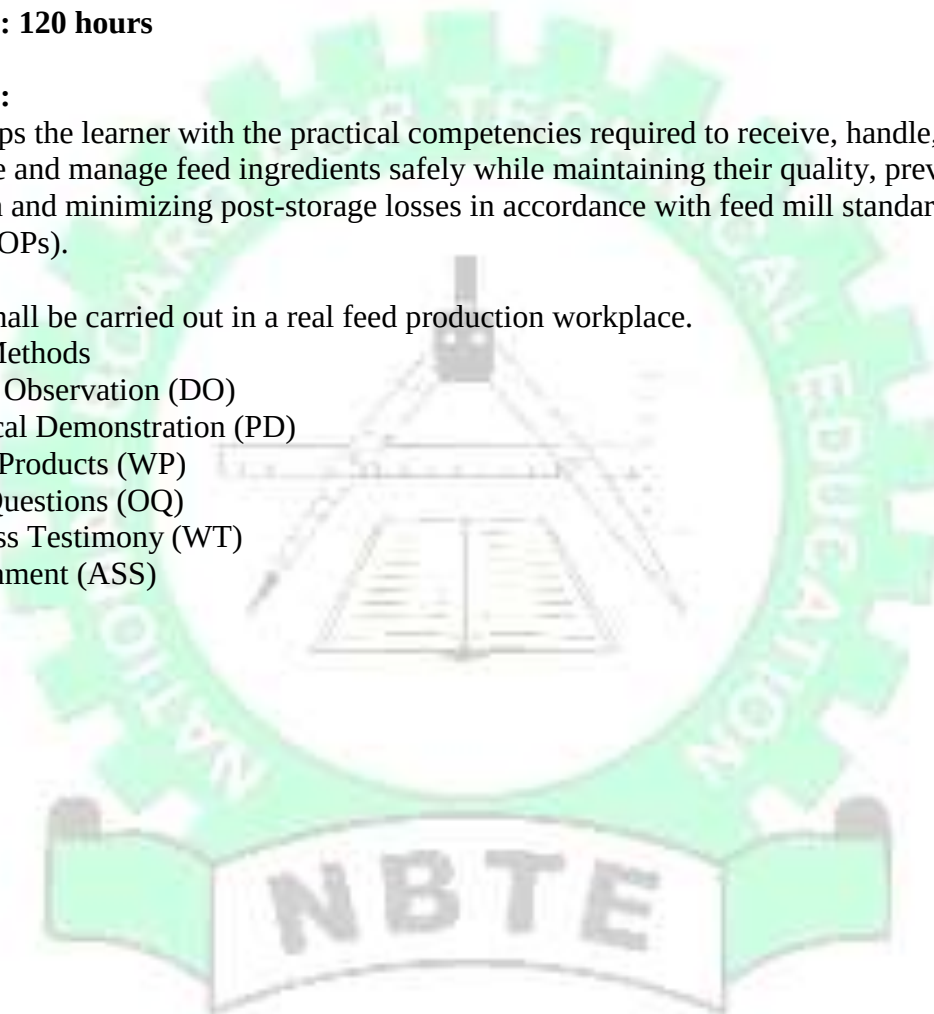
Unit Purpose:

This unit equips the learner with the practical competencies required to receive, handle, transport, store, preserve and manage feed ingredients safely while maintaining their quality, preventing contamination and minimizing post-storage losses in accordance with feed mill standard operating procedures (SOPs).

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

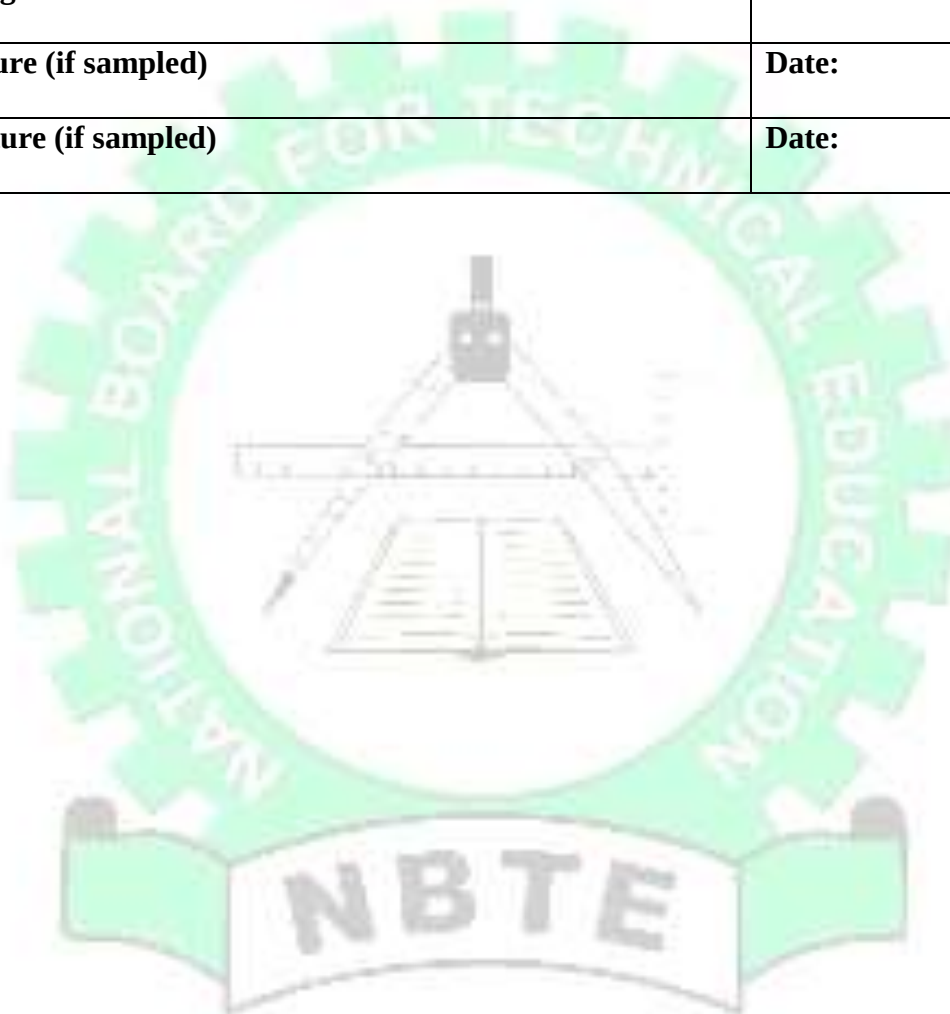


Unit 005: Feed Ingredient Handling and Storage

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Receive and handle feed ingredients safely.	1.1	Verify feed ingredient delivery documents before unloading.		
	1.2	Inspect feed ingredients upon receipt.		
	1.3	Unload feed ingredients using approved handling procedures.		
	1.4	Handle ingredients using appropriate equipment.		
	1.5	Prevent contamination during handling.		
	1.6	Prevent spillage and material losses during handling.		
	1.7	Transfer feed ingredients safely to designated storage areas.		
LO2: Store feed ingredients under appropriate conditions.	2.1	Arrange feed ingredients according to storage categories.		
	2.2	Stack feed bags according to recommended stacking procedures.		
	2.3	Maintain adequate spacing between stacks.		
	2.4	Control storage temperature and ventilation.		
	2.5	Protect ingredients from moisture and direct sunlight.		
	2.6	Secure storage facilities against unauthorized access.		
	2.7	Maintain clean and orderly storage facilities.		
LO3: Preserve the quality of stored feed ingredients.	3.1	Inspect stored ingredients regularly.		
	3.2	Detect moisture damage during storage.		
	3.3	Detect mould growth on stored ingredients.		
	3.4	Detect insect and rodent infestation.		
	3.5	Isolate deteriorated feed ingredients.		
	3.6	Apply approved preservation measures.		
	3.7	Ensure ingredient quality is maintained throughout the storage period.		
LO4: Control inventory and stock	4.1	Label stored feed ingredients appropriately.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
movement.	4.2	Assign batch identification numbers.		
	4.3	Apply First-In, First-Out (FIFO) stock rotation.		
	4.4	Apply First-Expired, First-Out (FEFO) where applicable.		
	4.5	Monitor stock levels regularly.		
	4.6	Conduct routine stock counts.		
	4.7	Update inventory records accurately.		
LO5: Operate feed ingredient handling equipment.	5.1	Select appropriate handling equipment.		
	5.2	Operate conveyors safely.		
	5.3	Operate forklifts or pallet trucks according to workplace procedures.		
	5.4	Operate weighing equipment accurately.		
	5.5	Clean handling equipment after use.		
	5.6	Report equipment defects promptly.		
	5.7	Store handling equipment appropriately after use.		
LO6: Maintain workplace hygiene and safety during ingredient storage.	6.1	Wear appropriate personal protective equipment (PPE).		
	6.2	Clean storage areas routinely.		
	6.3	Dispose of damaged packaging materials safely.		
	6.4	Prevent cross-contamination between feed ingredients.		
	6.5	Implement pest control measures.		
	6.6	Comply with workplace health and safety procedures.		
	6.7	Report unsafe storage conditions promptly.		
LO7: Demonstrate competency in feed ingredient handling and storage.	7.1	Store feed ingredients according to SOPs.		
	7.2	Organize ingredients for efficient retrieval.		
	7.3	Preserve ingredient quality during storage.		
	7.4	Maintain complete stock records.		
	7.5	Demonstrate proper use of handling equipment.		
	7.6	Maintain traceability of stored ingredients.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type				Evidence Ref. Page No.			
The learner will:		The learner can:								
	7.7	Complete handling and storage operations according to quality assurance requirements.								
Learners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sampled)			Date:							



UNIT 006: BASIC FEED FORMULATION

Unit Reference Number: AGR/FPD/006/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose:

This unit equips the learner with the practical competencies required to select feed ingredients, weigh raw materials, prepare simple feed formulations, mix ingredients uniformly, verify formulated feeds, and maintain formulation records in accordance with standard operating procedures (SOPs), quality assurance requirements and animal nutritional needs.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 006: Basic Feed Formulation

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Select feed ingredients for formulation.	1.1	Select feed ingredients according to formulation specifications.									
	1.2	Verify the quality of selected ingredients before use.									
	1.3	Assemble ingredients according to the production schedule.									
	1.4	Confirm ingredient availability before formulation.									
	1.5	Separate unsuitable ingredients from production materials.									
	1.6	Arrange ingredients in the formulation area.									
	1.7	Prepare ingredients for weighing.									
LO2: Weigh feed ingredients accurately.	2.1	Calibrate weighing equipment before use.									
	2.2	Weigh each ingredient according to the formulation sheet.									
	2.3	Verify weighed quantities before mixing.									
	2.4	Correct weighing errors before production.									
	2.5	Prevent ingredient losses during weighing.									
	2.6	Record weighed quantities accurately.									
	2.7	Maintain weighing equipment after use.									
LO3: Prepare feed formulations.	3.1	Follow approved formulation sheets during preparation.									
	3.2	Measure ingredients according to production requirements.									
	3.3	Assemble ingredients in the prescribed sequence.									
	3.4	Incorporate premixes and additives appropriately.									
	3.5	Verify formulation before mixing.									
	3.6	Maintain formulation accuracy throughout preparation.									
	3.7	Complete formulation according to SOPs.									
LO4: Mix feed ingredients	4.1	Load ingredients into the mixer correctly.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
uniformly.	4.2	Operate the feed mixer according to operating procedures.		
	4.3	Mix ingredients for the specified duration.		
	4.4	Monitor mixing process throughout operation.		
	4.5	Check mixture uniformity.		
	4.6	Discharge mixed feed safely.		
	4.7	Clean the mixer after production.		
LO5: Verify formulated feed quality.	5.1	Inspect formulated feed for appearance and texture.		
	5.2	Inspect formulated feed for uniformity.		
	5.3	Detect foreign materials in formulated feed.		
	5.4	Collect representative feed samples.		
	5.5	Label feed samples appropriately.		
	5.6	Submit samples for quality evaluation.		
	5.7	Isolate non-conforming feed batches.		
LO6: Maintain formulation records.	6.1	Record formulation batch numbers.		
	6.2	Record ingredient quantities used.		
	6.3	Record production dates and times.		
	6.4	Record operator details.		
	6.5	Record formulation deviations.		
	6.6	Maintain formulation documentation according to workplace procedures.		
	6.7	File formulation records for traceability.		
LO7: Demonstrate competency in basic feed formulation.	7.1	Select ingredients according to the formulation sheet.		
	7.2	Weigh ingredients accurately using calibrated equipment.		
	7.3	Prepare a balanced feed mixture according to production specifications.		
	7.4	Operate the mixer safely and efficiently.		
	7.5	Produce a homogeneous feed mixture.		
	7.6	Complete formulation records accurately.		
	7.7	Produce finished feed that meets established quality standards.		
Learners Signature:			Date:	

LEARNING OUTCOME (LO)	PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:	The learner can:		
Assessors Signature:		Date:	
IQA Signature (if sampled)		Date:	
EQA Signature (if sampled)		Date:	



UNIT 007: FEED MILLING OPERATIONS

Unit Reference Number: AGR/FPD/007/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose

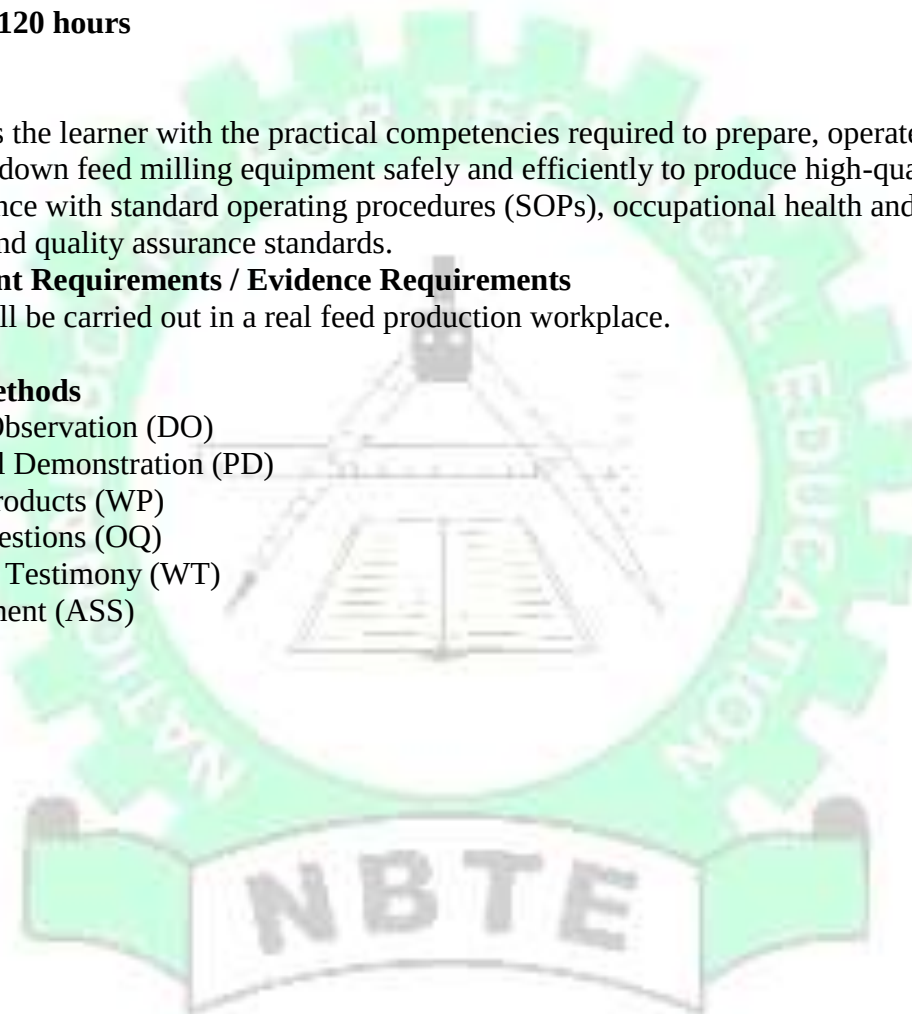
This unit equips the learner with the practical competencies required to prepare, operate, monitor, adjust and shut down feed milling equipment safely and efficiently to produce high-quality livestock feed in accordance with standard operating procedures (SOPs), occupational health and safety requirements, and quality assurance standards.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 007: Feed Milling Operations

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Prepare feed milling equipment for operation.	1.1	Inspect feed milling equipment before operation.		
	1.2	Verify the operational condition of the hammer mill, mixer and pellet mill.		
	1.3	Check electrical and mechanical connections.		
	1.4	Remove residual feed materials from equipment.		
	1.5	Assemble machine components correctly.		
	1.6	Conduct pre-start safety checks.		
	1.7	Prepare equipment according to standard operating procedures.		
LO2: Operate feed milling equipment.	2.1	Start feed milling equipment according to operating procedures.		
	2.2	Feed raw materials into the milling system safely.		
	2.3	Operate the hammer mill efficiently.		
	2.4	Operate the feed mixer according to duration specifications.		
	2.5	Operate the pellet mill or crumbling machine where applicable.		
	2.6	Maintain continuous feed flow during production.		
	2.7	Shut down equipment according to approved procedures.		
LO3: Monitor milling operations.	3.1	Monitor machine performance during production.		
	3.2	Monitor feed flow through the production line.		
	3.3	Monitor grinding efficiency.		
	3.4	Monitor mixing uniformity.		
	3.5	Monitor pellet quality during production.		
	3.6	Monitor equipment for abnormalities during operation.		
	3.7	Report operational deviations promptly.		
LO4: Adjust milling processes.	4.1	Adjust hammer mill screens according to production requirements.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	4.2	Adjust ingredient feed rates.		
	4.3	Adjust mixing time according to formulation requirements.		
	4.4	Adjust pellet mill settings to achieve required pellet quality.		
	4.5	Correct minor operational faults during production.		
	4.6	Restore normal production parameters.		
	4.7	Verify production settings after adjustment.		
LO5: Maintain product quality during milling.	5.1	Inspect ground materials for particle size uniformity.		
	5.2	Verify uniformity of mixed feed.		
	5.3	Inspect pellet durability where applicable.		
	5.4	Collect representative samples during production.		
	5.5	Isolate non-conforming products.		
	5.6	Prevent cross-contamination between production batches.		
	5.7	Maintain feed quality according to specifications.		
LO6: Maintain feed milling equipment after operation.	6.1	Clean milling equipment after production.		
	6.2	Remove accumulated dust and feed residues.		
	6.3	Lubricate moving machine parts according to maintenance schedules.		
	6.4	Inspect equipment for wear, tear and damage.		
	6.5	Report equipment faults requiring maintenance.		
	6.6	Store equipment and accessories appropriately.		
	6.7	Complete equipment maintenance records.		
LO7: Demonstrate competency in feed milling operations.	7.1	Prepare feed milling equipment for production.		
	7.2	Operate milling equipment safely and efficiently.		
	7.3	Monitor production processes		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.				
The learner will:		The learner can:										
		continuously.										
	7.4	Adjust milling operations to maintain production efficiency.										
	7.5	Produce feed that meets quality specifications.										
	7.6	Clean milling equipment after production.										
	7.7	Complete milling operations in compliance with occupational health, safety and quality assurance requirements.										
Learners Signature:			Date:									
Assessors Signature:			Date:									
IQA Signature (if sampled)			Date:									
EQA Signature (if sampled)			Date:									

UNIT 008: FEED PACKAGING AND STORAGE

Unit Reference Number: AGR/FPD/008/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose:

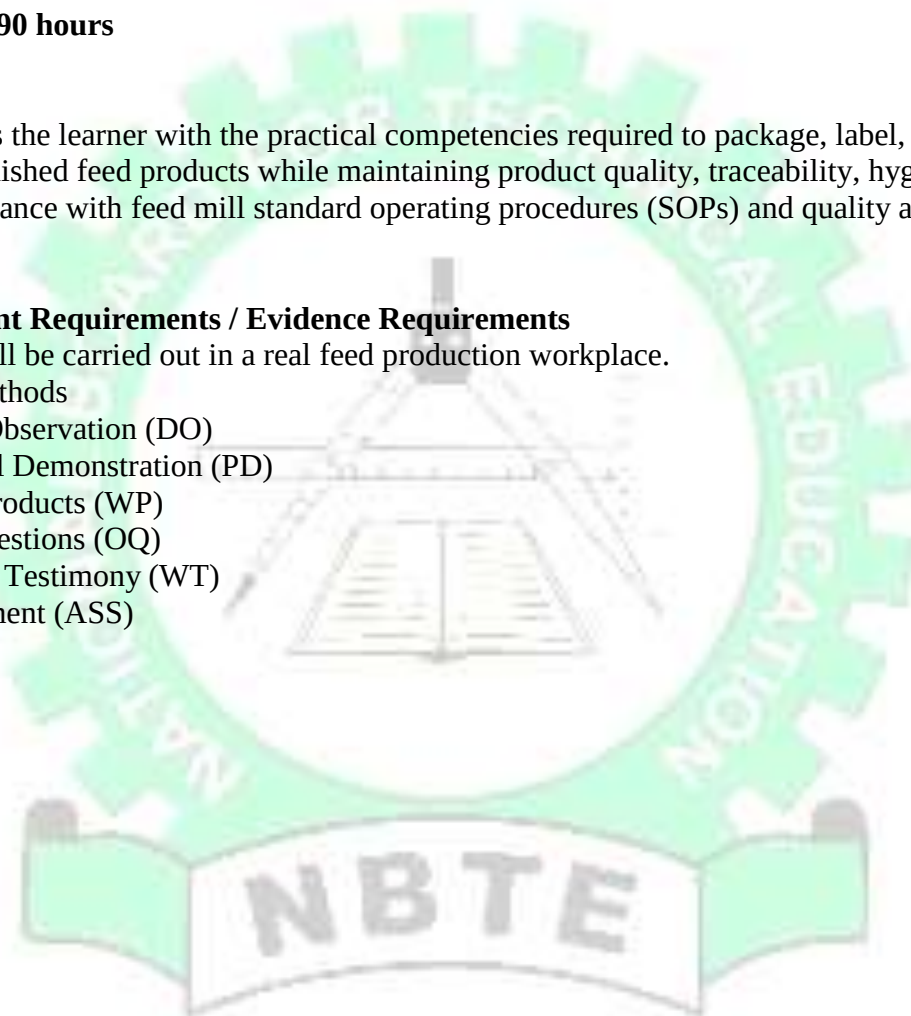
This unit equips the learner with the practical competencies required to package, label, handle, store and dispatch finished feed products while maintaining product quality, traceability, hygiene and safety in accordance with feed mill standard operating procedures (SOPs) and quality assurance requirements.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 008: Feed packaging and storage

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Identify suitable feed packaging materials	1.1	Recognize common packaging types (sacks, plastic bags, containers).									
	1.2	Distinguish reusable vs disposable packaging.									
	1.3	Identify damaged packaging.									
	1.4	Record packaging type used.									
	1.5	Report unsuitable packaging.									
	1.6	Suggest replacement when necessary.									
	1.7	Follow supervisor's instructions on packaging.									
LO2: Handle feed packaging safely	2.1	Lift feed bags correctly to avoid injury.									
	2.2	Avoid tearing or puncturing packaging.									
	2.3	Seal opened bags properly.									
	2.4	Prevent spillage during handling.									
	2.5	Use clean tools when handling packaged feed.									
	2.6	Wear protective clothing when required.									
	2.7	Report unsafe handling practices.									
LO3: Label packaged feed correctly	3.1	Write feed details clearly on labels.									
	3.2	Record batch numbers.									
	3.3	Note supply details.									
	3.4	Attach labels securely.									
	3.5	Replace damaged or missing labels.									
	3.6	Maintain legible handwriting.									
	3.7	Report labeling errors.									
LO4: Store packaged feed properly	4.1	Stack feed bags off the ground.									
	4.2	Keep storage area dry and ventilated.									
	4.3	Avoid direct sunlight exposure.									
	4.4	Prevent pest entry.									
	4.5	Monitor storage conditions regularly.									
	4.6	Maintain cleanliness of storage area.									
	4.7	Report storage issues promptly.									
LO5: Prevent contamination during storage	5.1	Segregate contaminated feed immediately.									
	5.2	Avoid mixing old and new batches.									
	5.3	Keep storage tools clean.									
	5.4	Seal containers tightly.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	5.5	Dispose of damaged packaging properly.		
	5.6	Record contamination incidents.		
	5.7	Report contamination to supervisors.		
LO6: Document packaging and storage activities	6.1	Record packaging type used.		
	6.2	Record storage conditions.		
	6.3	Record batch numbers.		
	6.4	Maintain record books sequentially.		
	6.5	Submit records to supervisors.		
	6.6	Keep records safe.		
	6.7	Review records regularly.		
LO7: Report sampling outcomes	7.1	Summarize packaging activities.		
	7.2	Report storage conditions.		
	7.3	Suggest corrective actions.		
	7.4	Record reporting date.		
	7.5	Maintain confidentiality.		
	7.6	File reports properly.		
	7.7	Follow up on feedback.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 009: FEED QUALITY INSPECTION

Unit Reference Number: AGR/FPD/009/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose:

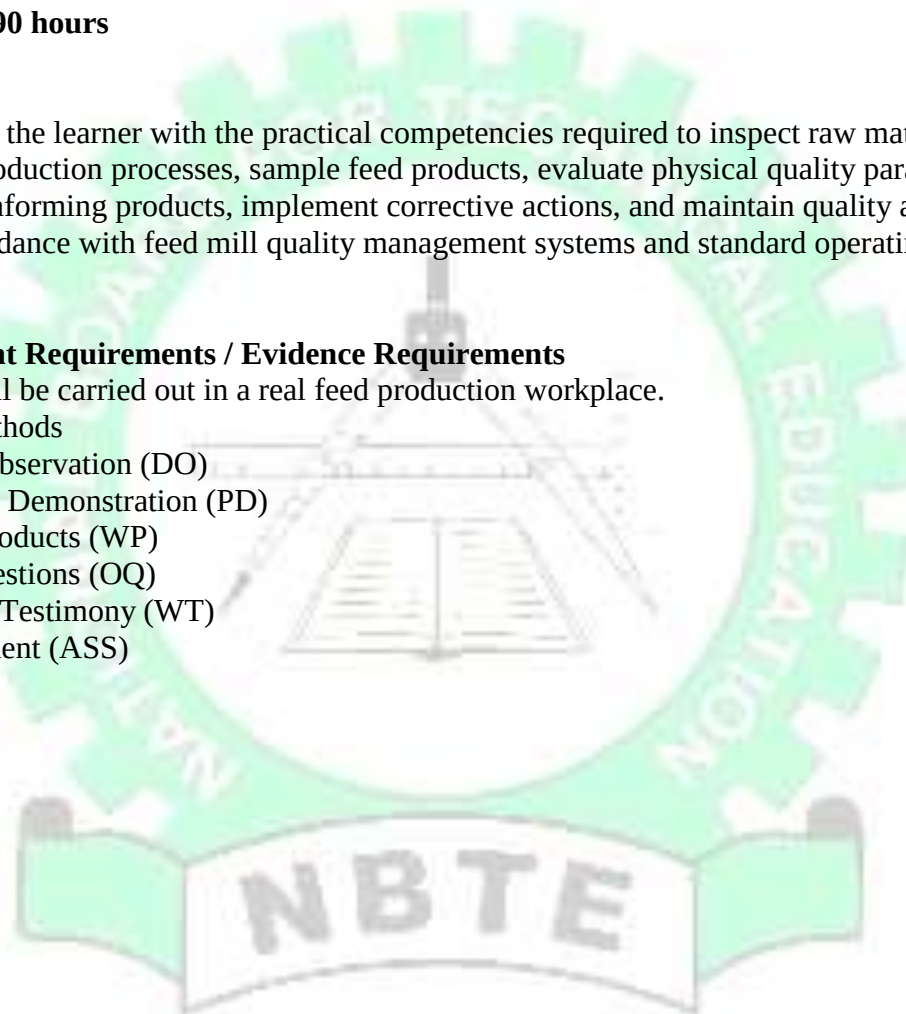
This unit equips the learner with the practical competencies required to inspect raw materials, monitor feed production processes, sample feed products, evaluate physical quality parameters, identify non-conforming products, implement corrective actions, and maintain quality assurance records in accordance with feed mill quality management systems and standard operating procedures (SOPs).

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

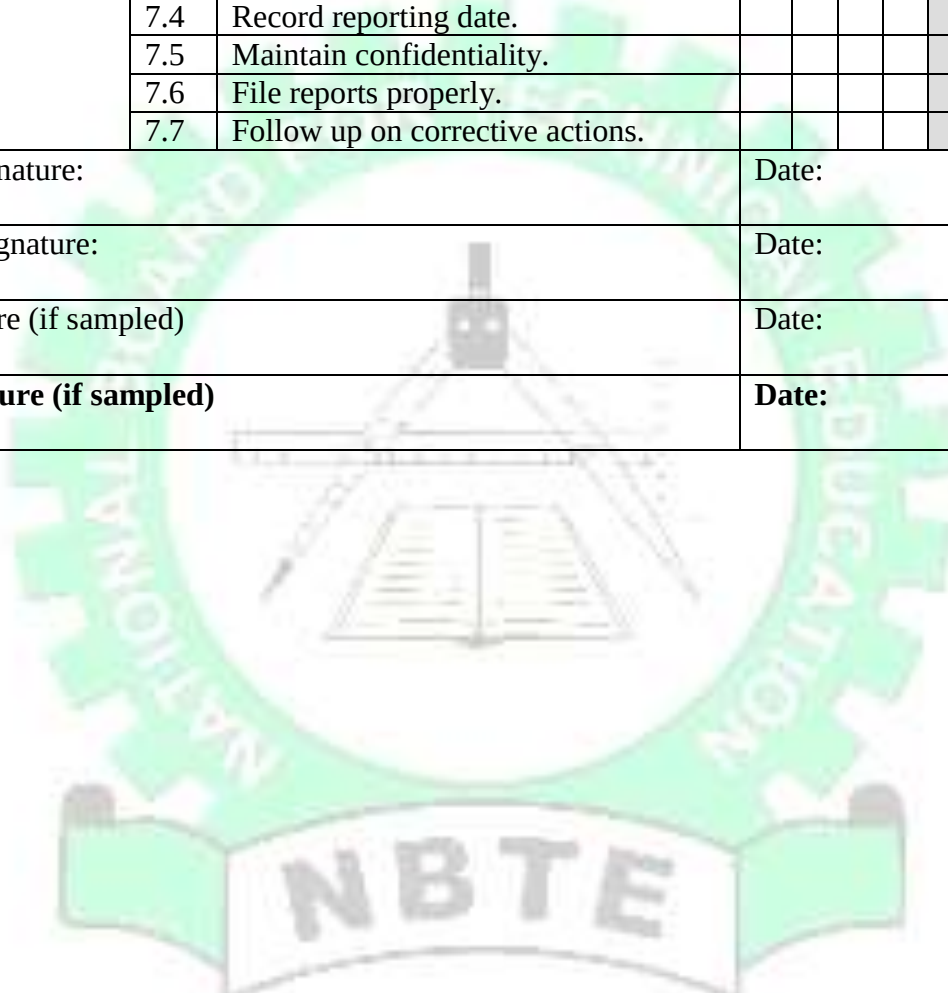
1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 009: Feed Quality Inspection

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Conduct visual inspection of feed	1.1	Check for mold growth.		
	1.2	Identify pest infestation.		
	1.3	Detect foreign matter.		
	1.4	Assess packaging condition.		
	1.5	Verify expiry dates.		
	1.6	Compare with standard samples.		
	1.7	Record inspection findings.		
LO2: Assess physical characteristics of feed	2.1	Check moisture by touch.		
	2.2	Assess texture (powdery, coarse)		
	2.3	Identify unusual odor.		
	2.4	Detect clumping or caking.		
	2.5	Compare with fresh feed.		
	2.6	Record physical observations.		
	2.7	Report abnormalities.		
LO3: Identify signs of contamination	3.1	Recognize insect presence.		
	3.2	Detect rodent droppings.		
	3.3	Identify chemical odor.		
	3.4	Spot discoloration.		
	3.5	Record contamination details.		
	3.6	Segregate contaminated feed.		
	3.7	Report contamination immediately.		
LO4: Verify feed packaging and labeling	4.1	Check label clarity.		
	4.2	Confirm batch numbers.		
	4.3	Verify supply details.		
	4.4	Ensure expiry date is visible.		
	4.5	Record packaging condition.		
	4.6	Report missing labels.		
	4.7	Suggest corrective actions.		
LO5: Maintain cleanliness during inspection	5.1	Wash hands before inspection.		
	5.2	Use clean tools.		
	5.3	Avoid contaminating samples.		
	5.4	Keep inspection area tidy.		
	5.5	Dispose of waste properly.		
	5.6	Wear protective clothing.		
	5.7	Report hygiene issues.		
LO6: Document feed inspection outcomes	6.1	Record inspection date.		
	6.2	Note batch numbers.		
	6.3	Record findings clearly.		
	6.4	Attach photos if possible.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	6.5	Submit reports to supervisors.		
	6.6	File documents systematically.		
	6.7	Review records regularly.		
LO7: Report feed quality deviations	7.1	Summarize deviations.		
	7.2	Notify supervisors promptly.		
	7.3	Suggest corrective measures.		
	7.4	Record reporting date.		
	7.5	Maintain confidentiality.		
	7.6	File reports properly.		
	7.7	Follow up on corrective actions.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 010: EQUIPMENT CLEANING AND MAINTENANCE

Unit Reference Number: AGR/FPD/010/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Unit Purpose

This unit equips the learner with the practical competencies required to inspect, clean, lubricate, service and maintain feed production equipment to ensure operational efficiency, product quality, workplace safety and prolonged equipment service life in accordance with standard operating procedures (SOPs) and manufacturers' recommendations.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

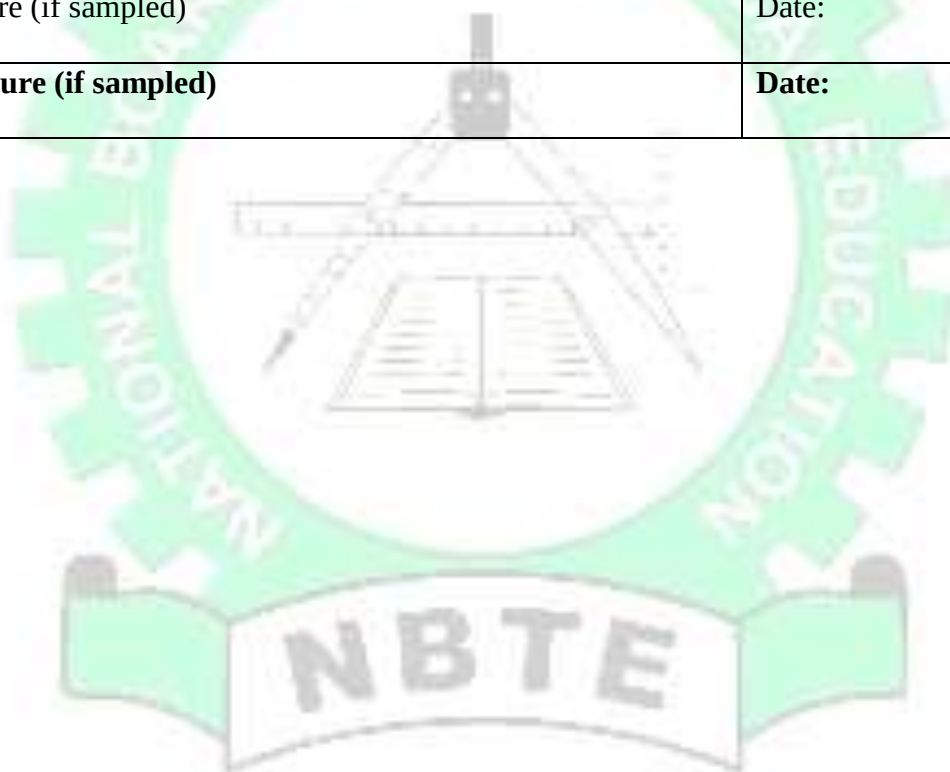


Unit 010: Equipment Cleaning and Maintenance

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Inspect feed production equipment before maintenance.	1.1	Identify equipment component that require routine cleaning and maintenance									
	1.2	Inspect feed production equipment before maintenance activities.									
	1.3	Identify worn or damaged machine components.									
	1.4	Detect abnormal machine conditions.									
	1.5	Verify machine safety devices.									
	1.6	Identify maintenance requirements.									
	1.7	Record equipment defects.									
	1.8	Report inspection findings according to workplace procedures.									
LO2: Clean feed production equipment.	2.1	Isolate equipment before cleaning.									
	2.2	Remove dust and feed residues from equipment									
	2.3	Clean machine surfaces using approved cleaning materials.									
	2.4	Carryout dry cleaning efficiently.									
	2.5	Carryout wet cleaning efficiently									
	2.6	Clean hoppers, conveyors and mixers thoroughly									
	2.7	Carryout flushing procedures between feed batches									
	2.8	Dispose waste safely.									
LO3: Perform routine preventive maintenance.	3.1	Lubricate moving machine parts according to maintenance schedules.									
	3.2	Tighten loose bolts, nuts and fittings.									
	3.3	Replace worn belts and minor consumable parts where authorized.									
	3.4	Check machine alignment.									
	3.5	Carry out equipment calibration									
	3.6	Inspect electrical cables and connections.									
	3.7	Verify machine operational readiness.									
	3.8	Troubleshoot common equipment faults and recommend corrective measures.									
	3.9	Complete routine maintenance activities according to SOPs.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO4: Operate maintenance tools and equipment.	4.1	Identify common wear parts		
	4.2	Select appropriate maintenance tools.		
	4.3	Use hand tools safely during maintenance.		
	4.4	Use cleaning equipment safely.		
	4.5	Maintain maintenance tools after use.		
	4.6	Store maintenance tools appropriately.		
	4.7	Report damaged tools for replacement or repair.		
LO5: Restore equipment to operational condition.	5.1	Reassemble equipment correctly after maintenance.		
	5.2	Remove maintenance tools from the work area.		
	5.3	Conduct post-maintenance safety checks.		
	5.4	Perform trial operation of equipment.		
	5.5	Verify equipment operating performance.		
	5.6	Release equipment for production.		
	5.7	Maintain equipment according to manufacturer's recommendations.		
LO6: Keep maintenance records.	6.1	Record maintenance activities accurately.		
	6.2	Record replaced parts and consumables.		
	6.3	Update equipment maintenance logs.		
	6.4	Update equipment spare part inventory record		
	6.5	Record machine downtime.		
	6.6	Document maintenance observations.		
	6.7	File maintenance records according to workplace procedures.		
	6.8	Keep maintenance documentation for future reference.		
LO7: Demonstrate competency in equipment cleaning and maintenance.	7.1	Inspect feed production equipment safely.		
	7.2	Clean feed production equipment according to SOPs.		
	7.3	Perform routine preventive maintenance efficiently.		
	7.4	Operate maintenance tools safely and effectively.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
	7.5	Restore equipment to operational condition.									
	7.6	Complete maintenance documentation accurately.									
	7.7	Perform equipment cleaning in compliance with occupational health, safety and environmental requirements.									
Learners Signature:			Date:								
Assessors Signature:			Date:								
IQA Signature (if sampled)			Date:								
EQA Signature (if sampled)			Date:								



UNIT 011: PRODUCTION RECORDS

Unit Reference Number: AGR/FPD/011/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

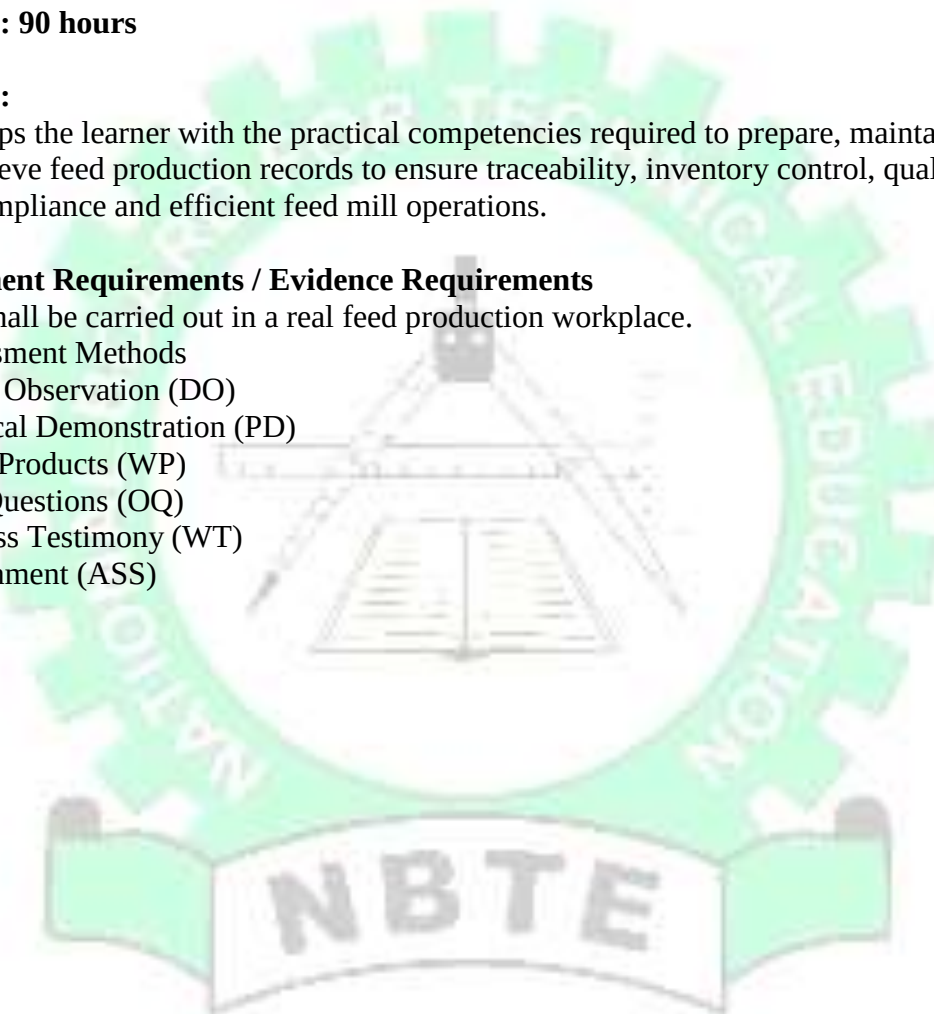
Unit Purpose:

This unit equips the learner with the practical competencies required to prepare, maintain, verify, store and retrieve feed production records to ensure traceability, inventory control, quality assurance, regulatory compliance and efficient feed mill operations.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

1. Assessment Methods
2. Direct Observation (DO)
3. Practical Demonstration (PD)
4. Work Products (WP)
5. Oral Questions (OQ)
6. Witness Testimony (WT)
7. Assignment (ASS)

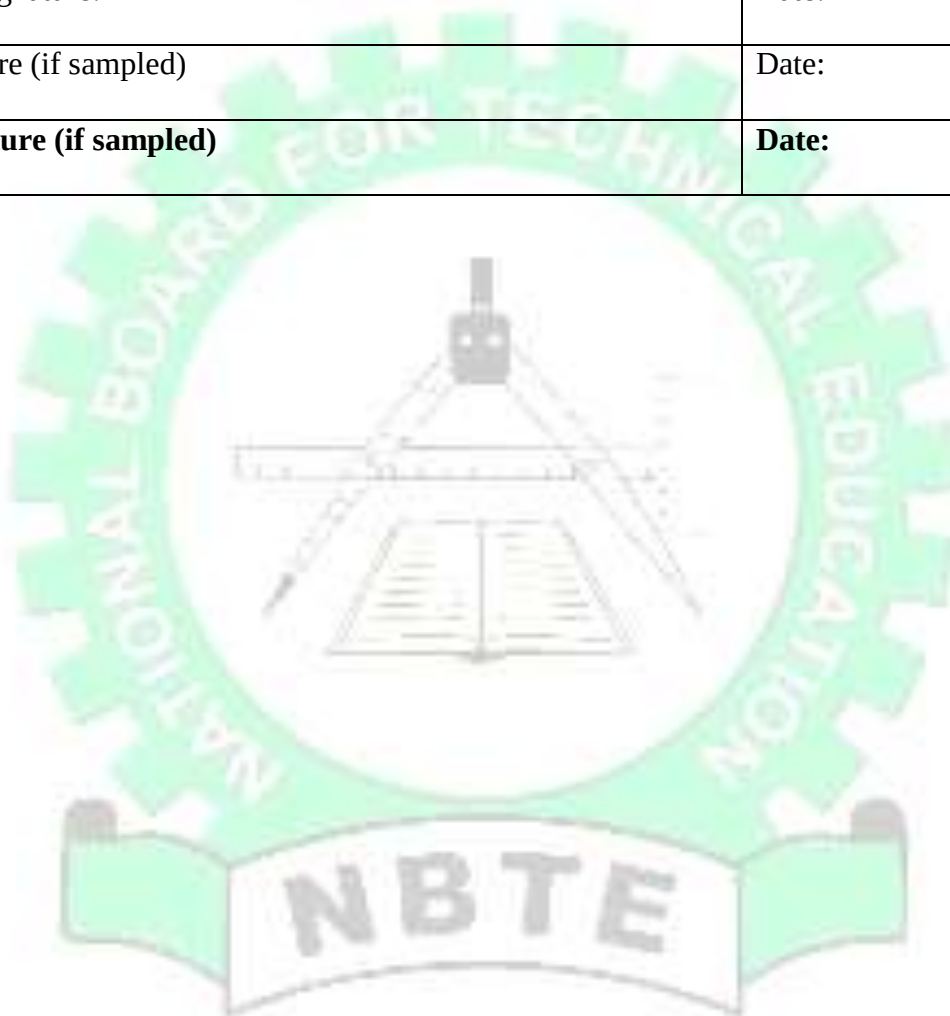


Unit 011: Production Records

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type				Evidence Ref. Page No.			
The learner will:		The learner can:								
LO1: Prepare feed production records.	1.1	Obtain approved production record forms.								
	1.2	Record production batch numbers accurately.								
	1.3	Record production dates and times.								
	1.4	Record feed formulation references.								
	1.5	Record production operators' details.								
	1.6	Verify production information before submission.								
	1.7	Submit completed production records according to workplace procedures.								
LO2: Record raw material utilization.	2.1	Record quantities of feed ingredients received.								
	2.2	Record ingredient quantities issued for production.								
	2.3	Record ingredient batch numbers.								
	2.4	Record ingredient losses during production.								
	2.5	Verify ingredient consumption records.								
	2.6	Update raw material inventory records.								
	2.7	Maintain raw material traceability records.								
LO3: Record feed production activities.	3.1	Record production start and completion times.								
	3.2	Record equipment used during production.								
	3.3	Record quantities of finished feed produced.								
	3.4	Record rejected or reprocessed feed products.								
	3.5	Record equipment downtime during production.								
	3.6	Record production interruptions and corrective actions.								
	3.7	Verify production activity records for accuracy.								
LO4: Maintain	4.1	Record feed quality inspection results.								

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
quality assurance records.	4.2	Record laboratory sample identification numbers.		
	4.3	Record quality test results.		
	4.4	Record non-conforming products.		
	4.5	Record corrective actions taken.		
	4.6	Update quality assurance documentation.		
	4.7	Maintain complete product traceability records.		
LO5: Maintain equipment and maintenance records.	5.1	Record equipment inspection activities.		
	5.2	Record equipment cleaning schedules.		
	5.3	Record preventive maintenance activities.		
	5.4	Record equipment faults and repairs.		
	5.5	Record equipment downtime.		
	5.6	Verify maintenance records.		
	5.7	Maintain equipment history files.		
LO6: Store and retrieve production records.	6.1	Organize production records sequentially.		
	6.2	Store production records securely.		
	6.3	Retrieve production records when required.		
	6.4	Protect confidential production information.		
	6.5	Maintain electronic and manual filing systems		
	6.6	Archive completed production records.		
	6.7	Dispose of obsolete records according to workplace procedures.		
LO7: Demonstrate competency in production record management.	7.1	Complete production documentation accurately.		
	7.2	Maintain accurate inventory records.		
	7.3	Maintain complete quality assurance records.		
	7.4	Keep equipment maintenance records.		
	7.5	Demonstrate traceability of raw materials and finished feed.		
	7.6	Retrieve production information efficiently.		
	7.7	Maintain production records in		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.				
The learner will:		The learner can:										
		compliance with feed mill quality management systems and regulatory requirements.										
Learners Signature:							Date:					
Assessors Signature:							Date:					
IQA Signature (if sampled)							Date:					
EQA Signature (if sampled)							Date:					



UNIT 012: FEED INGREDIENT SAMPLING (OPTIONAL)

Unit Reference Number: AGR/FPD/012/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose

This unit equips the learner with the practical competencies required to prepare, collect, label, preserve, transport and document representative feed ingredient samples for quality evaluation in accordance with feed mill quality assurance systems, laboratory procedures and standard operating procedures (SOPs).

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 012: Feed Ingredients Sampling

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Collect representative feed samples	1.1	Use clean sampling tools.		
	1.2	Collect from multiple points.		
	1.3	Avoid contamination.		
	1.4	Mix samples uniformly.		
	1.5	Store samples in clean containers.		
	1.6	Label samples correctly.		
	1.7	Record sampling details.		
LO2: Handle samples safely	2.1	Wash hands before sampling.		
	2.2	Wear protective clothing.		
	2.3	Avoid spillage.		
	2.4	Prevent cross-contamination.		
	2.5	Seal containers properly.		
	2.6	Store samples in safe areas.		
	2.7	Report unsafe handling.		
LO3: Label and identify samples	3.1	Write sample names clearly.		
	3.2	Attach labels securely.		
	3.3	Record source and date.		
	3.4	Use batch numbers.		
	3.5	Maintain legible handwriting.		
	3.6	Replace damaged labels.		
	3.7	Report missing labels.		
LO4: Store samples appropriately	4.1	Keep samples dry.		
	4.2	Store in ventilated areas.		
	4.3	Avoid direct sunlight.		
	4.4	Prevent pest entry.		
	4.5	Store containers properly.		
	4.6	Monitor storage conditions.		
	4.7	Report storage issues.		
LO5: Transport samples safely	5.1	Use sealed containers.		
	5.2	Prevent spillage during transport.		
	5.3	Label containers clearly.		
	5.4	Avoid contamination.		
	5.5	Record transport details.		
	5.6	Deliver samples promptly.		
	5.7	Report transport issues.		
LO6: Document sampling activities	6.1	Record sampling date.		
	6.2	Note batch numbers.		
	6.3	Record source details.		
	6.4	Maintain record books sequentially.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	6.5	Submit records to supervisors.		
	6.6	Keep records safe.		
	6.7	Review records regularly.		
LO7: Report sampling outcomes	7.1	Summarize sampling activities.		
	7.2	Report findings to supervisors.		
	7.3	Suggest corrections if errors occur.		
	7.4	Record report date.		
	7.5	Maintain confidentiality		
	7.6	File reports properly.		
	7.7	Follow up on feedback.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 013: WASTE MANAGEMENT (OPTIONAL)

Unit Reference Number: AGR/FPD/013/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose:

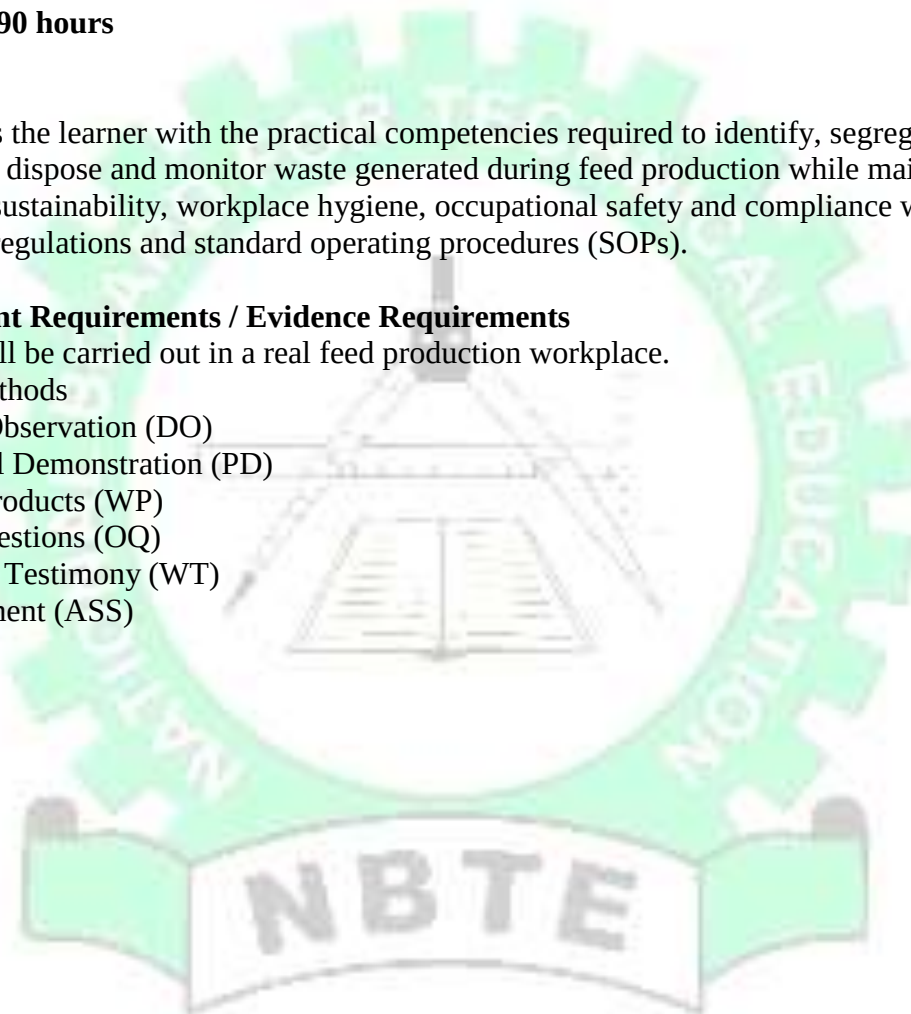
This unit equips the learner with the practical competencies required to identify, segregate, collect, handle, recycle, dispose and monitor waste generated during feed production while maintaining environmental sustainability, workplace hygiene, occupational safety and compliance with environmental regulations and standard operating procedures (SOPs).

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 013: Feed waste management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Identify types of feed waste	1.1	Recognize spoilt feed.		
	1.2	Identify contaminated feed.		
	1.3	Record types of waste.		
	1.4	Report waste categories.		
	1.5	Segregate waste accordingly.		
	1.6	Follow supervisor's instructions.		
LO2: Handle feed waste safely	2.1	Wear protective clothing when handling waste.		
	2.2	Use clean tools for waste collection.		
	2.3	Avoid direct contact with spoiled feed.		
	2.4	Prevent spillage during handling.		
	2.5	Seal waste containers properly.		
	2.6	Wash hands after handling waste.		
	2.7	Report unsafe handling practices.		
LO3: Segregate feed waste appropriately	3.1	Separate contaminated feed from safe feed.		
	3.2	Distinguish biodegradable vs non-biodegradable waste.		
	3.3	Use designated waste bins.		
	3.4	Label waste containers clearly.		
	3.5	Prevent mixing of waste types.		
	3.6	Record segregation activities.		
	3.7	Report segregation outcomes.		
LO4: Dispose feed waste properly	4.1	Use designated disposal areas.		
	4.2	Dispose waste as instructed.		
	4.3	Prevent re-entry of unsafe feed.		
	4.4	Record disposal activities.		
	4.5	Report disposal completion.		
	4.6	Follow environmental guidelines.		
	4.7	Suggest improvements to disposal methods.		
LO5: Prevent waste accumulation	5.1	Dispose waste promptly.		
	5.2	Clean storage areas regularly.		
	5.3	Monitor feed usage to reduce waste.		
	5.4	Record waste prevention activities.		
	5.5	Report waste accumulation.		
	5.6	Suggest corrective actions.		
	5.7	Follow supervisor's instructions.		

LO6: Document feed waste management activities	6.1	Record waste types and quantities.												
	6.2	Note disposal methods used.												
	6.3	Maintain record books sequentially.												
	6.4	Submit records to supervisors.												
	6.5	Keep records safe.												
	6.6	Review records regularly.												
	6.7	Attach disposal reports.												
LO7: Report feed waste management outcomes	7.1	Summarize waste management activities.												
	7.2	Report disposal outcomes.												
	7.3	Suggest improvements.												
	7.4	Record report date.												
	7.5	Maintain confidentiality.												
	7.6	File reports properly.												
	7.7	Follow up on feedback.												
Learners Signature:			Date:											
Assessors Signature:			Date:											
IQA Signature (if sampled)			Date:											
EQA Signature (if sampled)			Date:											

UNIT 014: CUSTOMER SERVICE IN FEED SUPPLY (OPTIONAL)

Unit Reference Number: AGR/FPD/014/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose

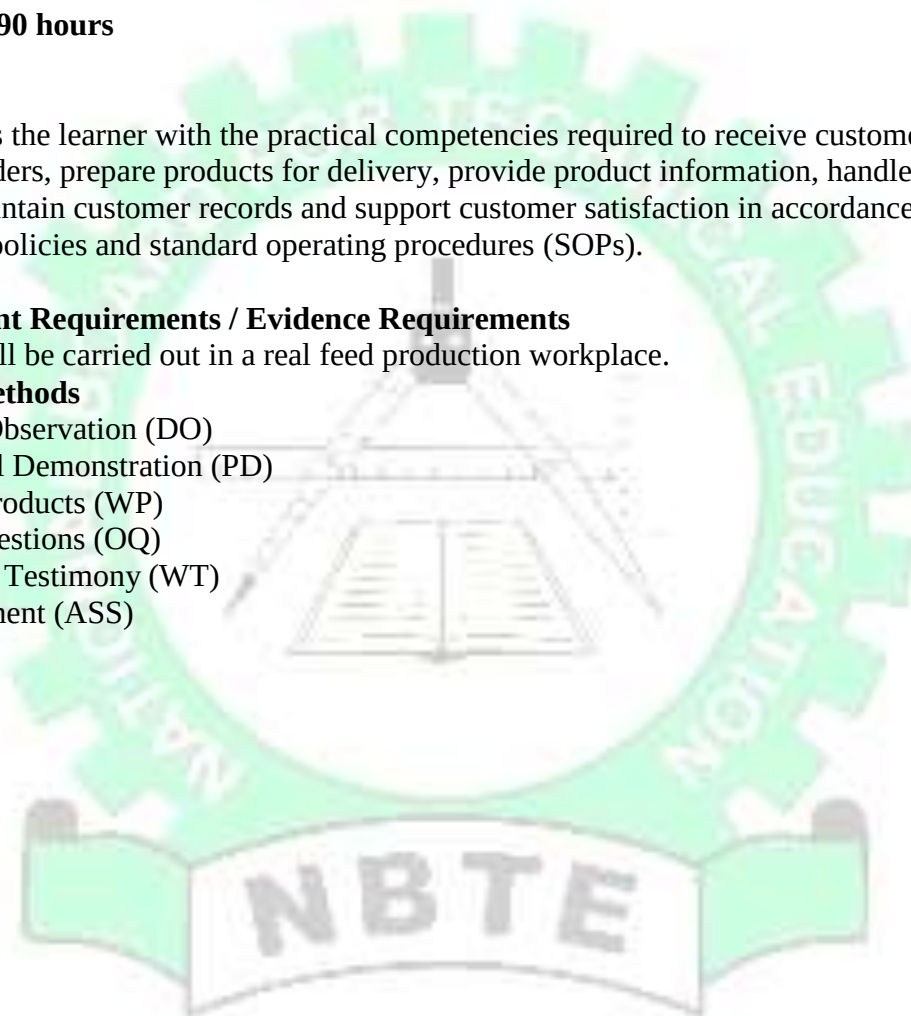
This unit equips the learner with the practical competencies required to receive customer requests, process feed orders, prepare products for delivery, provide product information, handle customer complaints, maintain customer records and support customer satisfaction in accordance with organizational policies and standard operating procedures (SOPs).

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 014: Customer Service in Feed Supply

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Receive customer enquiries and orders.	1.1	Welcome customers professionally.		
	1.2	Receive customer enquiries courteously.		
	1.3	Obtain customer order specifications accurately.		
	1.4	Confirm product availability.		
	1.5	Verify customer requirements.		
	1.6	Record customer orders accurately.		
	1.7	Forward confirmed orders for processing.		
LO2: Prepare feed products for customer supply.	2.1	Select feed products according to customer orders.		
	2.2	Verify product labels before dispatch.		
	2.3	Inspect product packaging for damage.		
	2.4	Confirm product quantities.		
	2.5	Arrange products for loading.		
	2.6	Protect products from contamination during handling.		
	2.7	Prepare products for delivery according to SOPs.		
LO3: Provide product information to customers.	3.1	Present feed products professionally.		
	3.2	Provide product usage instructions.		
	3.3	Explain feed storage requirements.		
	3.4	Inform customers of product shelf life.		
	3.5	Explain safe feed handling practices.		
	3.6	Provide information on available package sizes.		
	3.7	Verify customer understanding of product information.		
LO4: Handle customer complaints and feedback.	4.1	Receive customer complaints courteously.		
	4.2	Record customer complaints accurately.		
	4.3	Investigate routine customer complaints.		
	4.4	Refer unresolved complaints to supervisors.		
	4.5	Follow organizational complaint-		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
		handling procedures.		
	4.6	Communicate complaint resolution to customers.		
	4.7	Record customer feedback for continuous improvement.		
LO5: Maintain customer service records.	5.1	Prepare customer transaction records.		
	5.2	Update customer order records.		
	5.3	Record product deliveries.		
	5.4	Maintain customer contact information.		
	5.5	File customer service documents.		
	5.6	Protect confidential customer information.		
	5.7	Retrieve customer records when required.		
LO6: Support product delivery and customer satisfaction.	6.1	Verify delivery schedules.		
	6.2	Coordinate product loading activities.		
	6.3	Verify products before dispatch.		
	6.4	Obtain customer delivery confirmation.		
	6.5	Maintain product quality during delivery.		
	6.6	Follow up on customer satisfaction where required.		
	6.7	Report delivery issues promptly.		
LO7: Demonstrate competency in customer service.	7.1	Receive customer orders professionally.		
	7.2	Process customer requests accurately.		
	7.3	Prepare products for delivery correctly.		
	7.4	Provide accurate product information.		
	7.5	Resolve routine customer complaints appropriately.		
	7.6	Maintain complete customer service documentation.		
	7.7	Deliver customer service in compliance with organizational policies, occupational health, safety and quality assurance requirements.		
Learners Signature:			Date:	
Assessors Signature:			Date:	

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 015: DIGITAL RECORD KEEPING (OPTIONAL)

Unit Reference Number: AGR/FPD/015/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose:

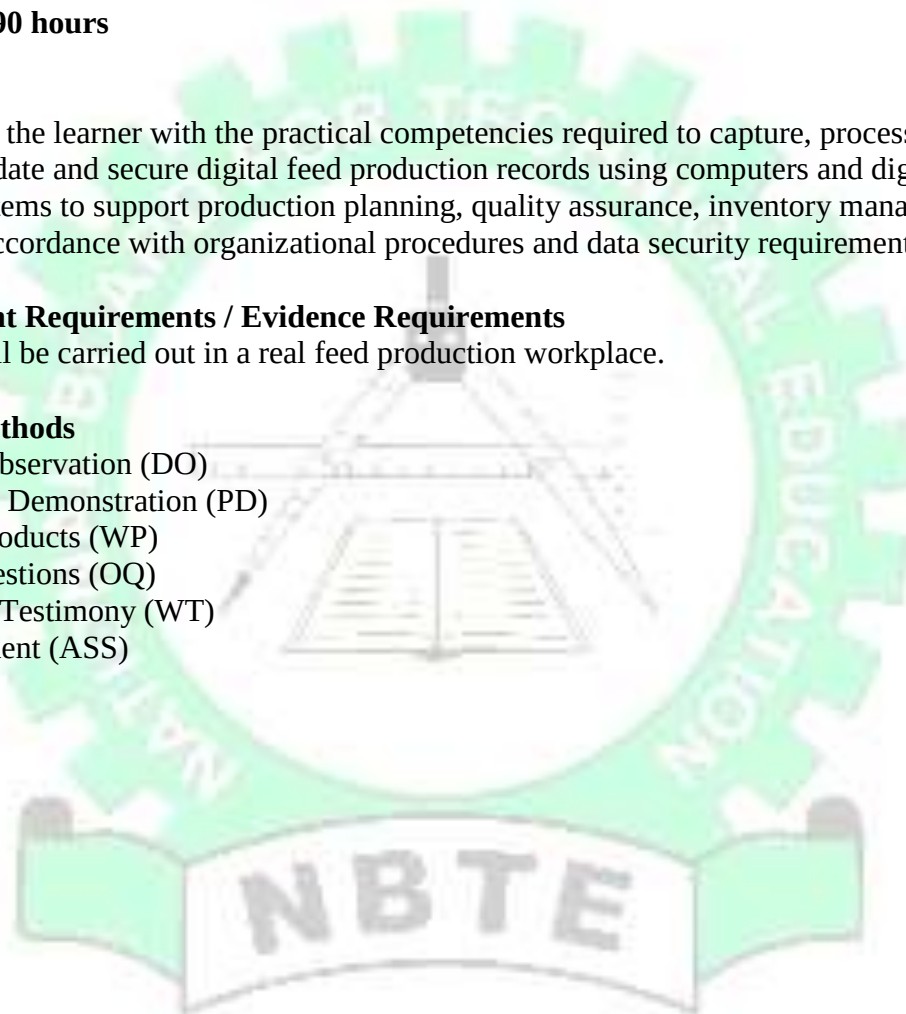
This unit equips the learner with the practical competencies required to capture, process, store, retrieve, and update and secure digital feed production records using computers and digital information systems to support production planning, quality assurance, inventory management and traceability in accordance with organizational procedures and data security requirements.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 015: Digital Record Keeping (Optional)

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type				Evidence Ref. Page No.			
The learner will:		The learner can:								
LO1: Prepare digital systems for feed production record keeping.	1.1	Start computer systems according to workplace procedures.								
	1.2	Access the feed production information system using authorized login credentials.								
	1.3	Verify the operational status of digital equipment.								
	1.4	Connect peripheral devices required for data entry.								
	1.5	Open designated digital record templates.								
	1.6	Verify system date and time settings.								
	1.7	Prepare the digital workstation for data entry.								
LO2: Capture production data electronically.	2.1	Enter raw material receipt data into the digital system.								
	2.2	Record feed formulation information electronically.								
	2.3	Record production batch information.								
	2.4	Enter production output quantities accurately.								
	2.5	Record equipment operating data.								
	2.6	Record quality inspection results electronically.								
	2.7	Verify the accuracy of all entered data before saving.								
LO3: Manage digital production records.	3.1	Save production records in designated folders or databases.								
	3.2	Update existing production records where required.								
	3.3	Organize electronic files according to workplace procedures.								
	3.4	Retrieve production records when requested.								
	3.5	Archive completed production records electronically.								
	3.6	Maintain version control of digital documents.								
	3.7	Delete duplicate or obsolete records								

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
		according to organizational procedures.		
LO4: Maintain inventory and traceability records electronically.	4.1	Update raw material inventory records electronically.		
	4.2	Update finished feed inventory records.		
	4.3	Record batch identification numbers.		
	4.4	Maintain supplier information electronically.		
	4.5	Maintain customer dispatch records electronically.		
	4.6	Retrieve traceability information when required.		
	4.7	Verify electronic inventory records against physical stock.		
LO5: Protect digital production information.	5.1	Secure user login credentials.		
	5.2	Apply password protection to digital records where required.		
	5.3	Back up production records according to workplace procedures.		
	5.4	Prevent unauthorized access to production information.		
	5.5	Report data security incidents promptly.		
	5.6	Restore backed-up production records where required.		
	5.7	Maintain confidentiality of digital production information.		
LO6: Generate digital production reports.	6.1	Generate daily production reports electronically.		
	6.2	Generate inventory reports.		
	6.3	Generate production summary reports.		
	6.4	Generate quality assurance reports.		
	6.5	Verify report accuracy before distribution.		
	6.6	Print or electronically distribute reports to authorized personnel.		
	6.7	File generated reports according to workplace procedures.		
LO7: Demonstrate competency in digital record keeping.	7.1	Operate digital record management systems efficiently.		
	7.2	Capture production data accurately.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	7.3	Maintain electronic inventory and traceability records.		
	7.4	Protect digital production information from unauthorized access.		
	7.5	Generate and retrieve electronic production reports.		
	7.6	Maintain complete electronic documentation for feed production activities.		
	7.7	Perform digital record management in compliance with organizational procedures, quality management systems and data security requirements.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



NATIONAL SKILLS QUALIFICATION (NSQ)



NATIONAL SKILLS QUALIFICATION

GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in Feed Production for the award of National Skills Qualifications (NSQ). It is aimed at producing NSQ Level 4 with the competencies in Feed Production. This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

This qualification is targeted at developing competence in Feed Production. This is focused on supervising feed production lines, manage quality assurance systems, control production efficiency, team and resource management, and ensure compliance with regulatory standards.

QUALIFICATION REQUIREMENTS

All Candidates must be:

At least Sixteen (16) years of age

Medically fit

Mentally fit (Mental alertness)

Achieved NSQ level 2 in Feed Production

Nigerian

Other nationals (should in addition present international passport and residence permit)

QUALIFICATION OBJECTIVES

To achieve this qualification, the learner should be able to:

- i. Comply with occupational health, safety and environmental requirements in feed production
- ii. Communicate effectively with supervisors, colleagues, customers and other stakeholders in feed production
- iii. Work effectively as a member of a team to achieve feed production objectives
- iv. Plan and coordinate the procurement of feed ingredients, verify supplier compliance, and supervise safe handling and labeling.
- v. Plan, formulate, supervise, verify and optimize balanced livestock feeds using approved formulation methods and feed ingredients while ensuring nutritional adequacy, cost-effectiveness, feed safety and compliance with feed manufacturing standards.
- vi. Supervise, monitor and optimize feed production operations to ensure efficient utilization of resources, consistent product quality, achievement of production targets and compliance with feed safety, occupational health and safety, and quality management systems to plan, coordinate, supervise and evaluate feed quality control activities throughout the production process to ensure that raw materials, in-process products and finished feeds comply with established quality standards, feed safety requirements, regulatory specifications and organizational quality management systems.
- vii. Monitor feed safety and biosecurity programmes to prevent contamination, control biological, chemical and physical hazards, maintain feed integrity and ensure compliance with feed safety regulations, quality management systems and standard operating procedures (SOPs).
- viii. Supervise feed production and equipment maintenance

- ix. Carryout feed packaging and distribution
- x. Coordinate, monitor and control feed production schedules, raw material inventories, finished product inventories and production resources to ensure uninterrupted production, efficient resource utilization and compliance with organizational production objectives.
- xi. Carryout feed marketing utilize alternative feed resources. It promotes cost-effective, sustainable, and safe feed production for animal nutrition.
- xii. Carryout waste management coordinate digital production management systems, supervise electronic data capture, monitor production performance, manage digital records, generate operational reports and maintain secure production information to improve efficiency, traceability and decision-making in feed production operations.



NATIONAL SKILLS QUALIFICATION TABLE LEVEL 4

Unit	Reference No.	Unit Title	Credit Value	Guided Learning Hours	Practice Hours	Remark
001	AGR/FPD/001/L4	Health and Safety	3	30	90	Mandatory
002	AGR/FPD/002/L4	Communication in Feed Production	4	40	120	Mandatory
003	AGR/FPD/003/L4	Teamwork and Leadership	4	40	120	Mandatory
004	AGR/FPD/004/L4	Feed Ingredients Procurement and Storage	4	40	120	Mandatory
005	AGR/FPD/005/L4	Feed Formulation	6	60	180	Mandatory
006	AGR/FPD/006/L4	Feed Production Operations	6	60	180	Mandatory
007	AGR/FPD/007/L4	Feed Quality Control	6	60	180	Mandatory
008	AGR/FPD/008/L4	Feed Safety and Biosecurity	4	40	120	Mandatory
009	AGR/FPD/009/L4	Feed Production Equipment Maintenance	3	30	90	Mandatory
010	AGR/FPD/010/L4	Feed Packaging and Distribution	4	40	120	Mandatory
011	AGR/FPD/011/L4	Production Documentation and Inventory Control	3	30	90	Mandatory
TOTAL			47	470	1,410	

OPTIONAL UNITS

Unit	Reference No.	Unit Title	Credit Value	Guided Learning Hours	Practice Hours
012	AGR/FPD/012/L4	Feed Marketing	3	30	90
013	AGR/FPD/013/L4	Alternative Feed Resources	3	30	90
014	AGR/FPD/014/L4	Environmental and Waste Management	3	30	90
015	AGR/FPD/015/L4	Digital Production Management	3	30	90
TOTAL			12	120	360

QUALIFICATION STRUCTURE

This qualification comprises a total of eleven (15) Mandatory and Optional Units, with a credit value of 12 and 120 Guided Learning Hours (GLH) across the full qualification. One (1) credit is equivalent to ten (10) GLH. Guided Learning Hours are the time a learner spends in the classroom, workshop and laboratory of the Skills Training Centre (STC), being taught, instructed, supervised or assessed by a qualified trainer, facilitator or assessor.

In addition to the GLH, the qualification requires at least twice or thrice the GLH as practice time. Practice time is the time a learner is expected to spend applying the skills of each unit in a real workplace environment, carrying out the same tasks repeatedly until performance becomes consistent, accurate and habitual to the standard the qualification demands. It is undertaken under the guidance of a workplace supervisor, recorded in the learner's logbook and duly endorsed. Practice time is the principal setting where core assessment is conducted. It is through repeated performance in the workplace that a learner's achievement of the Learning Outcomes and Performance Criteria is judged and evidenced. Practice time is an additional requirement to GLH and does not replace them.

To achieve this qualification, the learner must complete all mandatory units, undertake the prescribed practice time, and accumulate the minimum credit value approved by NBTE. Credit is awarded only when a learner has been assessed as competent against all Learning Outcomes and Performance Criteria of a unit.

GENERAL GUIDE

Unit title	Provides a clear explanation of the content of the unit.
Unit number	The unique number assigned to the unit.
Unit reference	The unique reference number given to each unit at qualification approval by NBTE.
Unit level	Denotes the level of the unit within the National Skills Qualification Framework (NSQF).
Unit credit value	The value that has been given to the unit based on the expected learning time for an average learner. 1 credit = 10 learning hours.
Unit aim	Provides a brief outline of the unit content.
Learning outcome	A statement of what a learner will know, understand or be able to do as a result of a process of learning.
Assessment criteria	A description of the requirements a learner must achieve to demonstrate that a learning outcome has been met.
Unit assessment guidance	Any additional guidance provided to support the assessment of the unit.
Unit guided learning hours	The average number of hours of supervised or directed study time or assessment required to achieve a qualification or unit of

	a qualification.
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UNIT 001: HEALTH AND SAFETY

Unit reference number: AGR/FPD/001/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

Unit Purpose:

This unit equips the learner with the applied competencies required to conduct structured hazard inspections, enforce safe work practices, supervise the use of personal protective equipment (PPE), manage hazardous materials, respond effectively to workplace emergencies, and maintain a hygienic production environment. Learners will also monitor compliance with occupational health and safety procedures, document safety activities systematically, and support continuous improvement of workplace safety standards within feed production operations.

Unit Assessment /Evidence Requirements:

Assessment must be carried out in real workplace environment in which learning and human development training is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Assignment (ASS)

Unit 001: Health and Safety

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.			
<i>LO1: Inspect workplace hazards in feed production</i>	1.1 1.1	Conduct structured hazard inspections using checklists before operations.									
	1.2 1.2	Identify physical hazards across multiple production zones.									
	1.3 1.3	Detect chemical hazards in feed additives and cleaning agents.									
	1.4 1.4	Recognize biological hazards in raw materials and storage areas.									
	1.5 1.5	Assess mechanical hazards in processing equipment during operations.									
	1.6 1.6	Report hazards using approved workplace channels and escalate serious risks.									
	1.7 1.7	Document hazards systematically in official reporting formats for review.									
<i>LO2: Apply safe work practices during feed production</i>	2.1	Select and wear appropriate PPE for specific tasks.									
	2.2	Supervise housekeeping practices to maintain a safe environment.									
	2.3	Follow and enforce standard operating procedures during production.									
	2.4	Operate equipment safely under supervision and monitor others.									
	2.5	Handle feed ingredients using safe techniques to prevent contamination.									
	2.6	Maintain safe movement and traffic flow in production areas.									
	2.7	Demonstrate and train others in safe manual handling techniques.									
<i>LO3: Handle hazardous</i>	3.1	Identify hazardous chemicals and materials in production areas.									
	3.2	Interpret chemical safety labels,									

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
<i>materials safely</i>		symbols, and data sheets.			
	3.3	Store hazardous materials in designated secured areas.			
	3.4	Handle chemicals according to workplace safety procedures.			
	3.5	Supervise safe disposal of hazardous waste.			
	3.6	Contain accidental spills using approved containment methods.			
	3.7	Document and report hazardous material handling activities.			
LO4: Respond to workplace emergencies	4.1	Identify and classify emergency situations promptly.			
	4.2	Activate alarms and emergency systems correctly.			
	4.3	Direct personnel evacuation using designated escape routes.			
	4.4	Operate fire extinguishers and emergency equipment effectively.			
	4.5	Administer basic first aid within assigned responsibilities.			
	4.6	Report emergencies immediately to supervisors and authorities.			
	4.7	Participate actively in emergency drills and evaluate outcomes.			
LO5: Maintain a safe and hygienic workplace	5.1	Supervise cleaning of workstations before and after production.			
	5.2	Ensure equipment is cleaned and sanitized after use.			
	5.3	Oversee proper disposal of production waste.			
	5.4	Implement dust control measures during feed processing.			
	5.5	Monitor pest control measures within the facility.			
	5.6	Maintain sanitation facilities for workers.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	5.7	Verify workplace cleanliness before closing operations daily.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO6: Monitor compliance with health and safety procedures	1.1	Inspect PPE compliance among workers regularly.			
	1.2	Verify adherence to safety procedures during operations.			
	1.3	Monitor machine guards and safety devices during use.			
	1.4	Check visibility and accuracy of safety signs and notices.			
	1.5	Identify unsafe acts and conditions proactively.			
	1.6	Report non-compliance through official channels.			
	1.7	Maintain and review health and safety compliance records.			
LO 7: Demonstrate occupational health and safety standards	2.1	Conduct routine workplace safety inspections independently.			
	2.2	Demonstrate correct lifting and handling techniques to peers.			
	2.3	Operate feed production equipment safely.			
	2.4	Demonstrate proper use of emergency equipment in drills.			
	2.5	Apply hygiene protocols consistently during production.			
	2.6	Coordinate teamwork during emergency response activities.			
	2.7	Complete workplace safety documentation accurately and on time.			
Learners Signature:			Date:		

LEARNING OUTCOME (LO) The learner will:	PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
Assessors Signature:		Date:	
IQA Signature (if sampled)		Date:	
EQA Signature (if sampled)		Date:	



UNIT 002: COMMUNICATION IN FEED PRODUCTION

Unit reference number: AGR/FPD/002/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

Unit Purpose:

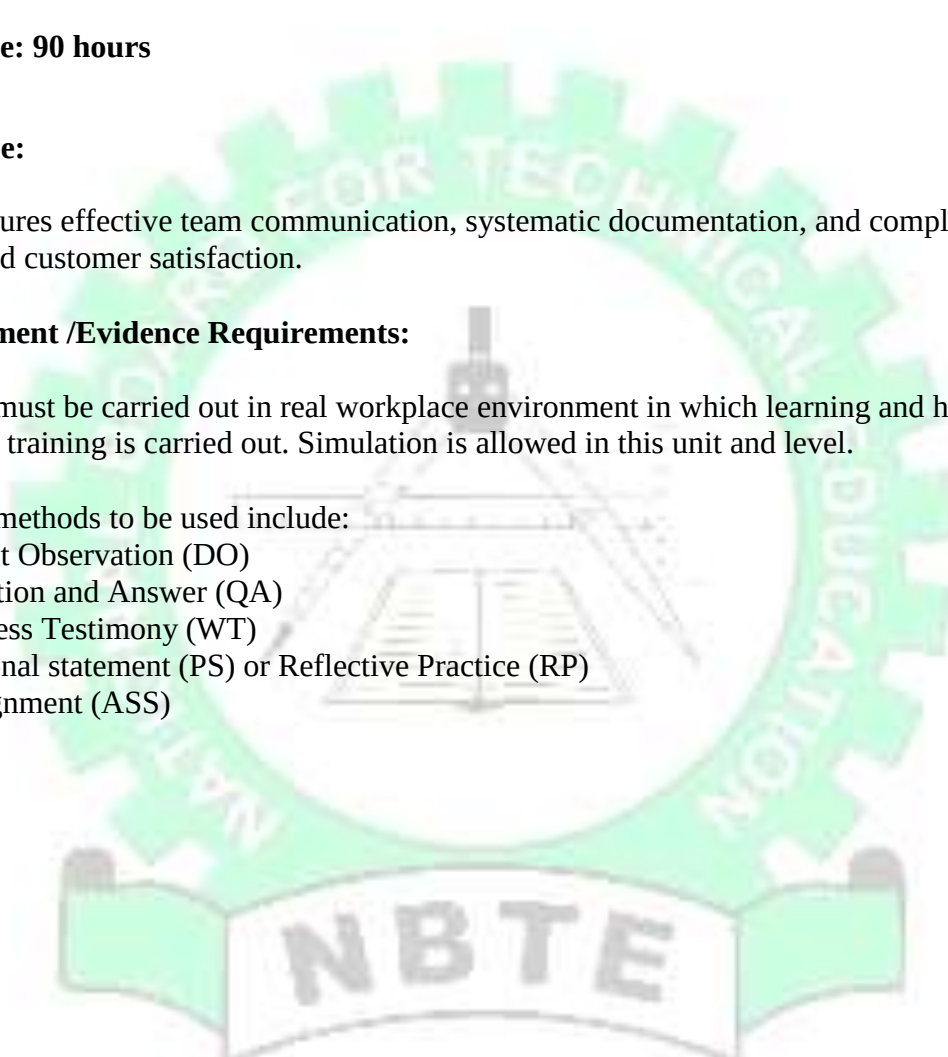
This unit ensures effective team communication, systematic documentation, and compliance for efficiency and customer satisfaction.

Unit Assessment /Evidence Requirements:

Assessment must be carried out in real workplace environment in which learning and human development training is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Assignment (ASS)



Unit 002: Communication in Feed Production

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Communicate effectively during feed production activities	1.1 1.1	Receive and interpret production instructions accurately using checklists.			
	1.2 1.2	Relay production information clearly to team members and monitor understanding.			
	1.3 1.3	Apply appropriate technical terms consistently during operations.			
	1.4 1.4	Respond promptly and correctly to workplace instructions.			
	1.5 1.5	Seek clarification proactively when instructions are unclear.			
	1.6 1.6	Report production progress systematically to supervisors.			
	1.7 1.7	Confirm completion of assigned tasks with documented evidence.			
LO2: Prepare workplace records and reports	2.1	Complete production record sheets with accuracy and consistency.			
	2.2	Record feed ingredient usage with batch numbers.			
	2.3	Document equipment operating data systematically.			
	2.4	Prepare daily production reports in approved formats.			
	2.5	Record equipment faults and breakdowns promptly.			
	2.6	Document workplace incidents according to procedures.			
	2.7	Submit completed reports within required timelines.			
LO3: Use communication equipment and digital tools	3.1	Operate telephones and intercom systems professionally.			
	3.2	Use computers for accurate production data entry.			
	3.3	Operate handheld digital devices for production monitoring.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	3.4	Send production information electronically using approved platforms.			
	3.5	Retrieve digital production records correctly.			
	3.6	Protect confidential production information in digital systems.			
	3.7	Maintain communication equipment through routine checks.			
LO4: Communicate with suppliers and customers	4.1	Receive feed ingredient delivery information professionally.			
	4.2	Verify delivery documents against supplier records.			
	4.3	Respond to customer enquiries courteously and accurately.			
	4.4	Provide clear and correct product information.			
	4.5	Direct customer complaints to appropriate personnel promptly.			
	4.6	Maintain professional workplace ethics during interactions.			
	4.7	Record customer feedback systematically for review.			
LO5: Interpret workplace information	5.1	Read and interpret production schedules accurately.			
	5.2	Interpret feed formulation sheets correctly.			
	5.3	Read and apply equipment operating manuals.			
	5.4	Interpret safety signs and symbols consistently.			
	5.5	Read feed product labels correctly.			
	5.6	Follow written SOPs without deviation.			
	5.7	Apply instructions from workplace documents effectively.			
	6.1	Participate actively in toolbox			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.			
		meetings.									
	6.2	Contribute to production briefings with relevant input.									
	6.3	Share production information clearly with team members.									
	6.4	Communicate workplace hazards promptly to supervisors.									
	6.5	Report production delays immediately with reasons.									
	6.6	Maintain effective communication throughout production operations.									
	6.7	Demonstrate professional workplace behavior consistently.									
	7.1	Communicate clearly during machine operation.									
	7.2	Coordinate activities effectively with co-workers.									
	7.3	Apply standard workplace communication procedures.									
	7.4	Maintain accurate production documentation.									
	7.5	Present production information clearly to supervisors.									
	7.6	Demonstrate effective listening skills during production activities.									
	7.7	Complete communication tasks according to organizational procedures.									
Learners Signature:			Date:								
Assessors Signature:			Date:								
IQA Signature (if sampled)			Date:								
EQA Signature (if sampled)			Date:								

UNIT 003: TEAMWORK AND LEADERSHIP

Unit reference number: AGR/FPD/003/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

Unit Purpose:

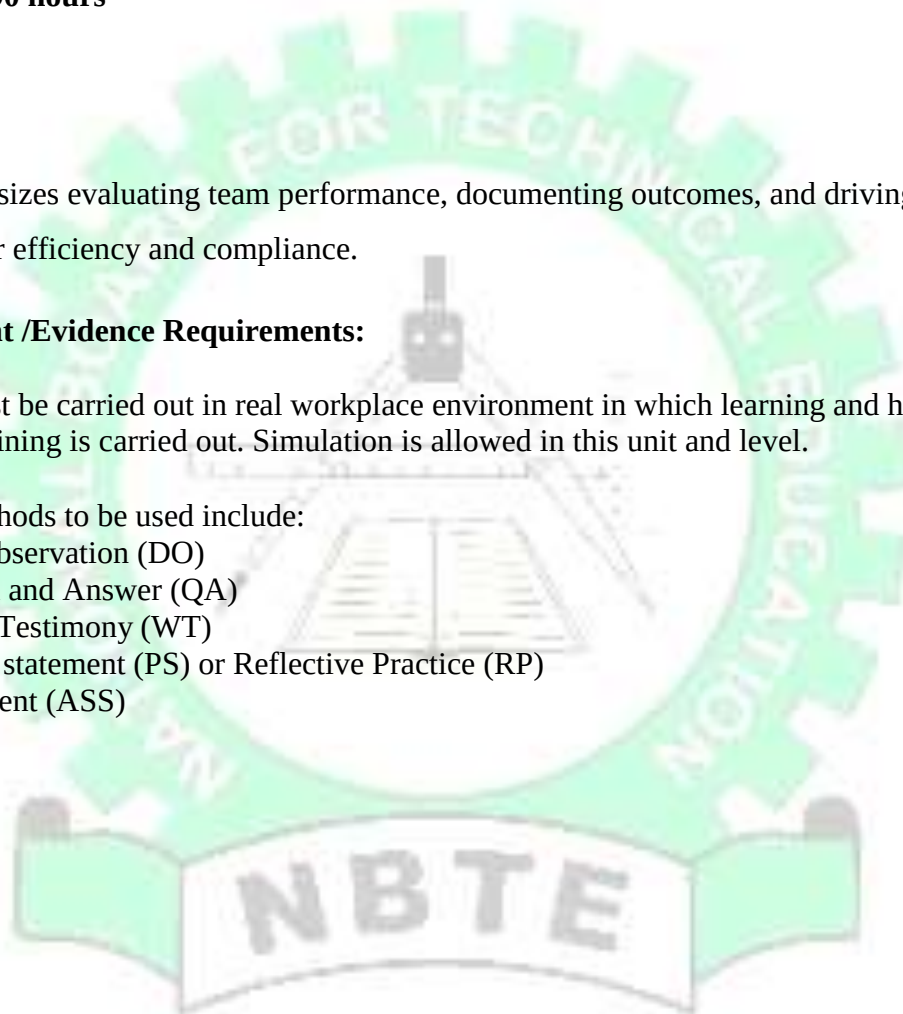
This unit emphasizes evaluating team performance, documenting outcomes, and driving continuous improvement for efficiency and compliance.

Unit Assessment /Evidence Requirements:

Assessment must be carried out in real workplace environment in which learning and human development training is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Assignment (ASS)



Unit 003: Teamwork and Leadership

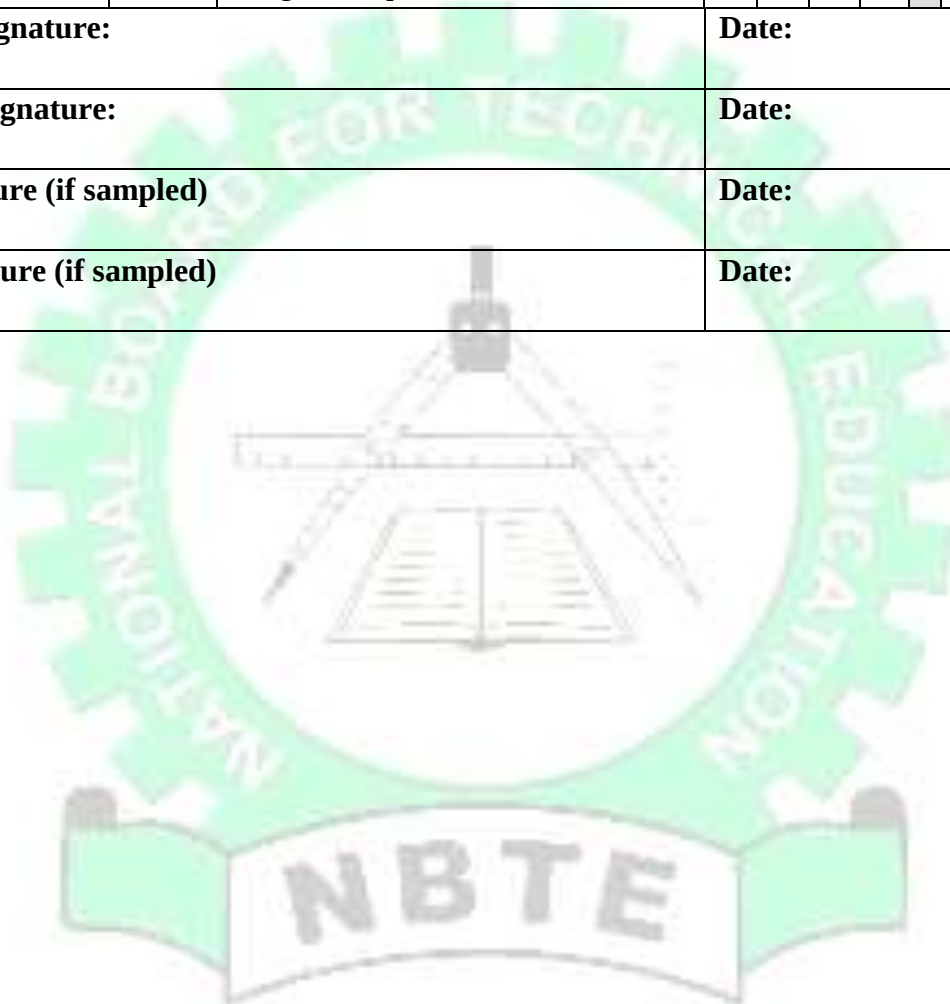
LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Participate in feed production team activities	1.1 1.1	Report to assigned workstations punctually and verify readiness.			
	1.2 1.2	Perform assigned production tasks collaboratively with accuracy.			
	1.3 1.3	Provide assistance to team members during complex operations.			
	1.4 1.4	Share production information clearly and confirm understanding.			
	1.5 1.5	Support team members in achieving production targets consistently.			
	1.6 1.6	Demonstrate cooperation and adaptability during production operations.			
	1.7 1.7	Complete assigned duties within specified timelines and document completion.			
LO2: Maintain effective working relationships	2.1	Demonstrate respect and professionalism toward supervisors and colleagues.			
	2.2	Apply workplace communication protocols consistently.			
	2.3	Maintain positive interpersonal relationships across shifts.			
	2.4	Respond appropriately and promptly to supervisory instructions.			
	2.5	Mentor and support newly assigned team members during operations.			
	2.6	Uphold professional conduct during workplace interactions.			
	2.7	Promote teamwork and collaboration throughout production activities.			
LO3: Coordinate	3.1	Coordinate raw material handling			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
<i>routine production activities with team members</i>		activities efficiently.			
	3.2	Supervise equipment operation in collaboration with team members.			
	3.3	Coordinate feed packaging operations to meet schedules.			
	3.4	Organize workplace cleaning activities with the team.			
	3.5	Support equipment maintenance activities collaboratively.			
	3.6	Manage production shift handovers effectively.			
	3.7	Ensure completion of production schedules through coordinated teamwork.			
<i>LO4: Resolve workplace challenges within assigned responsibilities</i>	4.1	Identify factors affecting teamwork and productivity.			
	4.2	Report workplace conflicts promptly to supervisors.			
	4.3	Apply approved conflict resolution procedures.			
	4.4	Cooperate with supervisors during resolution processes.			
	4.5	Assist in resolving routine production challenges.			
	4.6	Maintain professional conduct during disagreements.			
	4.7	Restore effective teamwork after conflict resolution and document outcomes.			
<i>LO5: Maintain productivity within the production team</i>	5.1	Perform duties according to production schedules consistently.			
	5.2	Minimize unnecessary production delays through proactive action.			
	5.3	Support continuous workflow during production operations.			
	5.4	Maintain quality standards while working collaboratively.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	5.5	Assist in achieving daily production targets.			
	5.6	Promote efficient utilization of production resources.			
	5.7	Uphold discipline and accountability throughout production activities			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO6: Participate in workplace health, safety, and environmental activities	1.1	Participate actively in workplace safety meetings.			
	1.2	Assist in maintaining workplace cleanliness and hygiene.			
	1.3	Support emergency response activities as part of the team.			
	1.4	Report unsafe acts and conditions promptly.			
	1.5	Participate in waste management and segregation activities.			
	1.6	Promote safe work practices among team members.			
	1.7	Maintain compliance with workplace health, safety, and environmental requirements.			
LO7: Demonstrate teamwork competencies in feed production operations	2.1	Demonstrate collaboration during feed ingredient receiving.			
	2.2	Work effectively with team members during feed mixing operations.			
	2.3	Coordinate teamwork during pelleting and processing activities.			
	2.4	Collaborate during packaging operations to meet targets.			
	2.5	Support teamwork during equipment cleaning tasks.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type				Evidence Ref. Page No.			
	2.6	Demonstrate teamwork during stock handling and inventory activities.								
	2.7	Evaluate team performance and recommend improvements within assigned responsibilities.								
Learners Signature:			Date:							
Assessors Signature:			Date:							
IQA Signature (if sampled)			Date:							
EQA Signature (if sampled)			Date:							



UNIT 004: FEED INGREDIENTS PROCUREMENT AND STORAGE

Unit reference number: AGR/FPD/004/L4

NSQ level: 4

Credit value: 4

Guided learning hours: 40

Practice time: 120 hours

Unit Purpose:

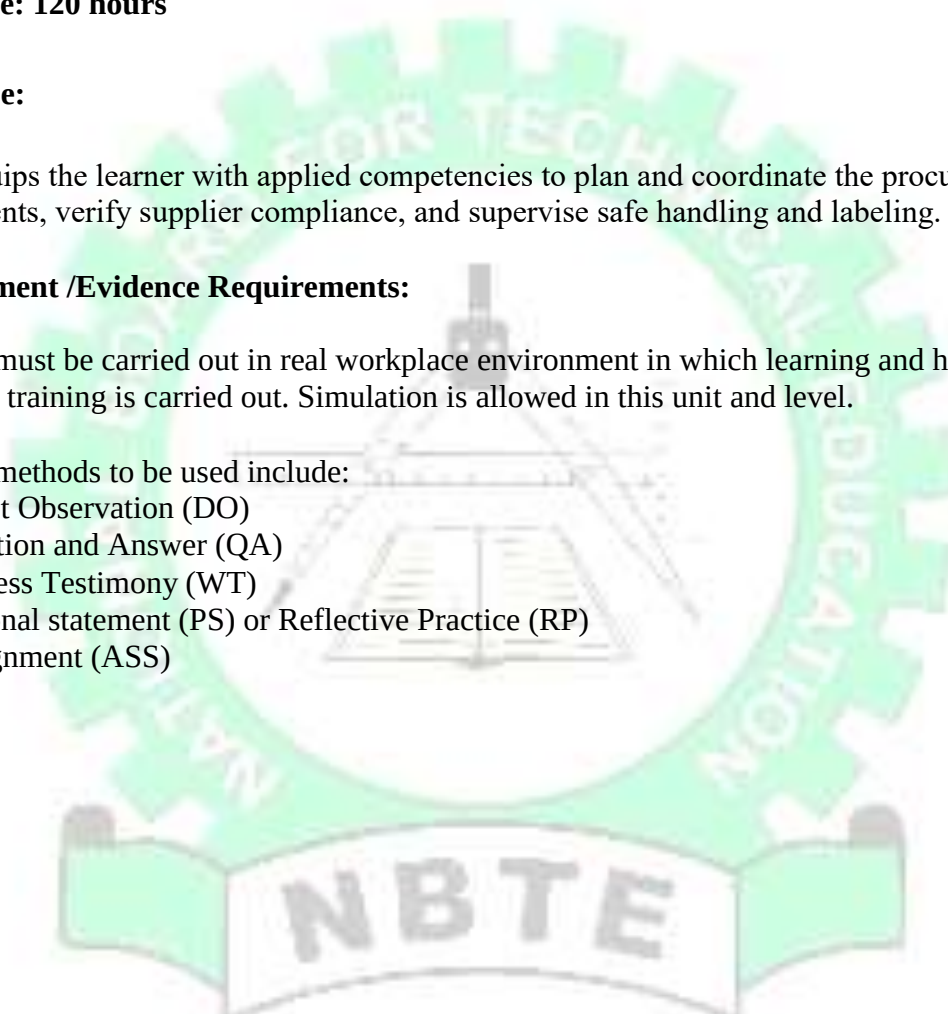
This unit equips the learner with applied competencies to plan and coordinate the procurement of feed ingredients, verify supplier compliance, and supervise safe handling and labeling.

Unit Assessment /Evidence Requirements:

Assessment must be carried out in real workplace environment in which learning and human development training is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Assignment (ASS)



Unit 004: Feed Ingredients Procurement and Storage

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
<i>LO1: Plan feed ingredient procurement activities.</i>	1.1 1.1	Prepare feed ingredient procurement schedules.			
	1.2 1.2	Determine feed ingredient requirements based on production plans.			
	1.3 1.3	Verify stock levels before procurement.			
	1.4 1.4	Prepare purchase requisitions according to organizational procedures.			
	1.5 1.5	Coordinate procurement activities with the purchasing unit.			
	1.6 1.6	Monitor procurement timelines.			
	1.7 1.7	Maintain procurement planning records.			
<i>LO2: Supervise receipt of feed ingredients.</i>	2.1	Verify supplier delivery documents.			
	2.2	Supervise unloading of feed ingredients.			
	2.3	Confirm delivered quantities on local purchase orders (LPO).			
	2.4	Inspect packaging integrity upon delivery.			
	2.5	Reject damaged or contaminated deliveries according to organizational procedures.			
	2.6	Approve receipt of compliant feed ingredients.			
	2.7	Complete receiving documentation accurately.			
<i>LO3: Supervise feed ingredient quality inspection.</i>	3.1	Coordinate inspection of incoming feed ingredients.			
	3.2	Cross check ingredient identity before acceptance.			
	3.3	Supervise sampling of received ingredients.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	3.4	Identify contaminated or substandard ingredients.			
	3.5	Isolate and reject non-conforming ingredients.			
	3.6	Authorize acceptance of compliant materials.			
	3.7	Maintain ingredient inspection records.			
LO4: Coordinate feed ingredient storage operations.	4.1	Allocate storage locations according to ingredient categories.			
	4.2	Supervise stacking of feed ingredients according to storage standards.			
	4.3	Monitor warehouse temperature and ventilation.			
	4.4	Protect ingredients from moisture, pests and contamination.			
	4.5	Verify storage hygiene and sanitation.			
	4.6	Monitor compliance with storage procedures.			
	4.7	Maintain storage condition records			
LO5: Supervise inventory management.	5.1	Monitor inventory levels regularly.			
	5.2	Implement First-In, First-Out (FIFO) inventory management.			
	5.3	Implement First-Expired, First-Out (FEFO) where applicable.			
	5.4	Conduct routine stock verification exercises.			
	5.5	Investigate stock discrepancies.			
	5.6	Authorize inventory adjustments according to organizational procedures.			
	5.7	Maintain inventory control records.			
LO6: Coordinate	6.1	Supervise pest control			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
<i>feed ingredient safety and preservation.</i>		programmes in storage facilities.			
	6.2	Monitor ingredient preservation practices.			
	6.3	Prevent cross-contamination during storage.			
	6.4	Supervise safe handling of feed additives and premixes.			
	6.5	Coordinate disposal of deteriorated ingredients.			
	6.6	Monitor compliance with feed safety requirements.			
	6.7	Maintain ingredient preservation records.			
<i>LO7: Demonstrate competency in feed ingredient procurement and storage.</i>	7.1	Plan feed ingredient procurement activities efficiently.			
	7.2	Supervise receipt and inspection of feed ingredients.			
	7.3	Coordinate safe storage operations.			
	7.4	Maintain inventory accuracy and traceability.			
	7.5	Enforce feed safety and quality assurance requirements.			
	7.6	Prepare procurement and inventory reports.			
	7.7	Perform procurement and storage activities in compliance with organizational policies, quality management systems and occupational health and safety requirements.			
Learners Signature:			Date:		
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		

UNIT 005: FEED FORMULATION

Unit reference number: AGR/FPD/005/L4

NSQ level: 4

Credit value: 4

Guided learning hours: 40

Practice time: 120 hours

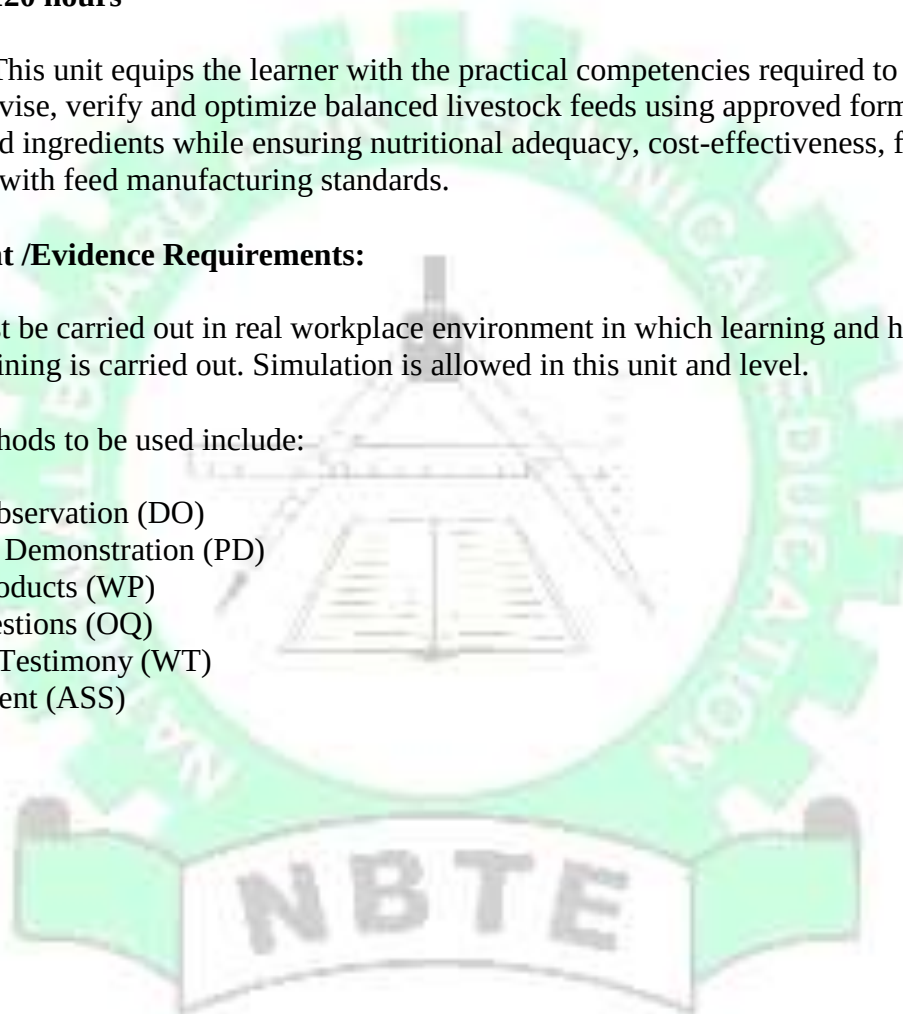
Unit Purpose: This unit equips the learner with the practical competencies required to plan, formulate, supervise, verify and optimize balanced livestock feeds using approved formulation methods and feed ingredients while ensuring nutritional adequacy, cost-effectiveness, feed safety and compliance with feed manufacturing standards.

Unit Assessment /Evidence Requirements:

Assessment must be carried out in real workplace environment in which learning and human development training is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 005: Feed Formulation

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Plan feed formulation activities.	1.1 1.1	Prepare feed formulation schedules according to production plans.			
	1.2 1.2	Select feed formulations for different livestock species and production stages.			
	1.3 1.3	Confirm availability of feed ingredients before formulation.			
	1.4 1.4	Confirm ingredient quality prior to formulation.			
	1.5 1.5	Determine production batch sizes.			
	1.6 1.6	Assign formulation tasks to production personnel.			
	1.7 1.7	Prepare formulation documentation according to organizational procedures.			
LO2: Supervise feed ingredient preparation.	2.1	Verify feed ingredient identification before weighing.			
	2.2	Supervise weighing of feed ingredients according to formulation sheets.			
	2.3	Verify weighing accuracy using calibrated equipment.			
	2.4	Monitor preparation of premixes and additives.			
	2.5	Prevent ingredient contamination during preparation.			
	2.6	Approve prepared ingredients for mixing.			
	2.7	Maintain ingredient preparation records.			
LO3: Supervise feed formulation and mixing operations.	3.1	Verify formulation sheets before production.			
	3.2	Supervise loading sequence of feed ingredients.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	3.3	Monitor feed mixing operations.			
	3.4	Verify mixing duration according to production specifications.			
	3.5	Monitor uniform distribution of ingredients.			
	3.6	Approve completion of formulation batches.			
	3.7	Maintain formulation batch records.			
LO4: Verify formulated feed quality.	4.1	Inspect formulated feed for uniformity.			
	4.2	Collect representative samples for quality evaluation.			
	4.3	Verify compliance with formulation specifications.			
	4.4	Identify formulation deviations.			
	4.5	Isolate non-conforming feed batches.			
	4.6	Recommend corrective actions against formulation errors.			
	4.7	Document quality verification results.			
LO5: Supervise inventory management.	5.1	Review formulation performance based on production outcomes from farm feedback			
	5.2	Monitor ingredient utilization efficiency.			
	5.3	Adjust formulations according to ingredient availability and approved specifications.			
	5.4	Improve formulation workflow for production efficiency.			
	5.5	Recommend process improvements to management.			
	5.6	Maintain formulation improvement records.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO6: Maintain formulation records and traceability.	6.1	Record formulation batch numbers accurately.			
	6.2	Maintain ingredient usage records.			
	6.3	Record production dates and operator details.			
	6.4	Maintain batch traceability records.			
	6.5	Verify formulation documentation for completeness.			
	6.6	Archive formulation records according to organizational procedures.			
	6.7	Protect formulation records from unauthorized access.			
LO7: Demonstrate competency in feed formulation.	7.1	Plan feed formulation activities efficiently.			
	7.2	Supervise ingredient preparation and weighing.			
	7.3	Coordinate feed mixing operations.			
	7.4	Verify formulation quality against production specifications.			
	7.5	Maintain complete formulation documentation and traceability.			
	7.6	Recommend improvements to formulation processes.			
	7.7	Perform feed formulation activities in compliance with feed safety, quality management systems, occupational health safety requirements, and organizational policies.			
Learners Signature:			Date:		
Assessors Signature:			Date:		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		



UNIT 006: FEED PRODUCTION OPERATIONS

Unit reference number: AGR/FPD/006/L4

NSQ level: 4

Credit value: 4

Guided learning hours: 40

Practice time: 120 hours

Unit Purpose: This unit equips the learner with the practical competencies required to plan, coordinate, supervise, monitor and optimize feed production operations to ensure efficient utilization of resources, consistent product quality, achievement of production targets and compliance with feed safety, occupational health and safety, and quality management systems.

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace:

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 006: Feed Production Operations

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Plan feed production operations.	1.1 1.1	Prepare feed production plan based on daily specified feed production target			
	1.2 1.2	Assign production personnel to operational task as required.			
	1.3 1.3	Allocate production equipment and resources to meet production needs.			
	1.4 1.4	Verify availability of raw materials before production.			
	1.5 1.5	Coordinate production sequence according to work plans.			
	1.6 1.6	Communicate production schedules to production teams.			
	1.7 1.7	Maintain production planning records.			
LO2: Coordinate feed production processes	2.1	Describe workflow of feed manufacturing process			
	2.2	Coordinate ingredient receiving and preparation activities.			
	2.3	Coordinate grinding and mixing operations.			
	2.4	Coordinate pelleting or crumbling operations where applicable.			
	2.5	Coordinate packaging and storage activities			
	2.6	Synchronize workflow between production sections.			
	2.7	Verify completion of scheduled production activities.			
LO3: Coordinate production performance.	3.1	Monitor production output against production targets.			
	3.2	Monitor equipment utilization during production.			
	3.3	Verify compliance with production schedules.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	3.4	Monitor staff productivity during operations.			
	3.5	Identify production delays and bottlenecks.			
	3.6	Implement corrective measures to restore workflow.			
	3.7	Prepare production performance reports.			
	3.8	Measure production efficiency using key performance indicators			
LO4: Ensure feed quality throughout production.	4.1	Monitor feed ingredient quality before production			
	4.2	Verify compliance with approved feed formulations.			
	4.3	Monitor ingredient weighing accuracy.			
	4.4	Supervise in-process quality inspections during grinding, mixing and pelleting			
	4.5	Verify finished feed quality before packaging.			
	4.6	Isolate non-conforming products.			
	4.7	Coordinate implementation of corrective actions.			
	4.8	Maintain production quality records.			
LO5: Optimize feed production efficiency.	5.1	Monitor production efficiency indicators.			
	5.2	Minimize raw material losses during production.			
	5.3	Reduce equipment downtime.			
	5.4	Improve workflow efficiency.			
	5.5	Optimize utilization of labour and equipment.			
	5.6	Analyze production data			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	5.7	Recommend process improvement measures.			
	5.8	Evaluate the effectiveness of implemented improvements.			
LO6: Monitor compliance with operational procedures.	6.1	Explain standard operating procedures (SOPs) used in feed mill			
	6.2	6.2 Monitor occupational health and safety practices during production.			
	6.3	6.3 Verify sanitation and hygiene requirements.			
	6.4	6.4 Monitor environmental protection measures.			
	6.5	6.5 Ensure compliance with quality management systems.			
	6.6	6.6 Conduct routine operational inspections.			
	6.7	6.7 Document operational compliance findings.			
LO7: Demonstrate competency in feed production operations.	7.1	Plan and coordinate feed production activities efficiently.			
	7.2	Monitor production personnel effectively.			
	7.3	Achieve scheduled production targets.			
	7.4	Maintain feed quality throughout production.			
	7.5	Optimize production resources and operational efficiency.			
	7.6	Prepare comprehensive production reports.			
	7.7	Perform supervisory responsibilities in compliance with feed safety regulations, quality management systems, occupational health and safety requirements, and			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
		organizational policies.			
Learners Signature:			Date:		
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		



UNIT 007: FEED QUALITY CONTROL

Unit reference number: AGR/FPD/007/L4

NSQ level: 4

Credit value: 4

Guided learning hours: 40

Practice time: 120 hours

Unit Purpose: This unit equips the learner with the practical competencies required to plan, coordinate, supervise and evaluate feed quality control activities throughout the production process to ensure that raw materials, in-process products and finished feeds comply with established quality standards, feed safety requirements, regulatory specifications and organizational quality management systems.

Unit Assessment /Evidence Requirements:

Assessment must be carried out in real workplace environment in which learning and human development training is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

Unit 007: Feed Quality Control

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Identify feed quality parameters.	1.1	Recognize color variations indicating spoilage.			
	1.2	Detect unusual odor in feed.			
	1.3	Assess texture (powdery, clumpy, fibrous).			
	1.4	Identify presence of foreign particles.			
	1.5	Distinguish between fresh and moldy feed.			
	1.6	Compare feed samples against standard reference.			
	1.7	Explain Feed toxins and Anti-Nutritional Factors (ANFs).			
LO2: Apply sampling techniques	2.1	Use clean tools for sampling.			
	2.2	Collect samples from multiple points in a batch.			
	2.3	Avoid contamination during sampling.			
	2.4	Label samples correctly with date and source.			
	2.5	Store samples in airtight containers.			
	2.6	Transport samples safely to testing area.			
	2.7	Follow supervisor's instructions for sample handling.			
LO3: Conduct physical inspection	3.1	Check feed bags for tears or leaks.			
	3.2	Inspect storage area for pests.			
	3.3	Verify feed packaging labels.			
	3.4	Examine feed for moisture damage.			
	3.5	Identify insect infestation signs.			
	3.6	Confirm feed is within expiry date.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	3.7	Report inspection findings immediately.			
LO4: Perform basic laboratory tests	4.1	Measure feed moisture using simple kits.			
	4.2	Estimate basic nutritional composition [crude protein, crude fibre, ether extract].			
	4.3	Test feed pH levels.			
	4.4	Use calibrated equipment correctly.			
	4.5	Record test results accurately.			
	4.6	Compare results with standard values.			
	4.7	Clean lab tools after use.			
LO5: Maintain feed storage standards	5.1	Keep storage area dry and ventilated.			
	5.2	Stack feed bags off the ground.			
	5.3	Rotate stock using FIFO (first in, first out) method.			
	5.4	Prevent exposure to direct sunlight.			
	5.5	Seal opened bags properly.			
	5.6	Monitor temperature and humidity.			
	5.7	Maintain cleanliness of storage area.			
	5.8	Keep storage area dry and ventilated.			
LO6: Document feed quality results.	6.1	Enter inspection data in logbooks.			
	6.2	Use clear handwriting or digital input.			
	6.3	Record date and time of inspection.			
	6.4	Note batch numbers and sources.			
	6.5	Attach test results to records.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	6.6	File documents systematically.			
	6.7	Submit reports to supervisor.			
LO7: Report deviations in feed quality	7.1	Identify deviations from standards.			
	7.2	Notify supervisor immediately.			
	7.3	Provide written report of findings.			
	7.4	Suggest corrective actions.			
	7.5	Escalate serious issues to management.			
	7.6	Maintain confidentiality of reports.			
	7.7	Follow up on corrective measures.			
Learners Signature:			Date:		
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		

UNIT 008: FEED SAFETY AND BIOSECURITY

Unit reference number: AGR/FPD/008/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

Unit Purpose: This unit equips the learner with the practical competencies required to plan, implement, supervise and monitor feed safety and biosecurity programmes to prevent contamination, control biological, chemical and physical hazards, maintain feed integrity and ensure compliance with feed safety regulations, quality management systems and standard operating procedures (SOPs).

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

Unit 008: Feed Safety and Biosecurity

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: <i>Plan feed safety and biosecurity programmes.</i>	1.1 1.1	Prepare feed safety implementation plans.			
	1.2 1.2	Identify feed safety hazards within production facilities.			
	1.3 1.3	Establish biosecurity control points.			
	1.4 1.4	Allocate feed safety responsibilities to personnel.			
	1.5 1.5	Prepare feed safety inspection schedules.			
	1.6 1.6	Coordinate feed safety activities across production sections.			
	1.7 1.7	Maintain feed safety planning records.			
LO2: <i>Recognize feed safety hazards</i>	2.1	Identify chemical contamination signs.			
	2.2	Detect biological hazards (mold, bacteria etc.).			
	2.3	Recognize physical hazards (stones, plastics etc.).			
	2.4	Distinguish safe vs unsafe feed.			
	2.5	Report hazards promptly.			
	2.6	Record hazard details in logbook.			
	2.7	Suggest preventive measures.			
LO3: <i>Apply hygiene protocols</i>	3.1	Wash hands before handling feed.			
	3.2	Clean tools before and after use.			
	3.3	Wear protective clothing, gears and mask.			
	3.4	Disinfect storage surfaces regularly to avoid build up of microbes.			
	3.5	Avoid cross-contamination.			
	3.6	Dispose off waste properly.			
	3.7	Follow workplace hygiene rules.			
LO4: <i>Implement pest control measures</i>	4.1	Identify pest activity signs.			
	4.2	Place traps in storage areas.			
	4.3	Apply approved pesticides safely.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	4.4	Detect and Seal entry points for rodents.			
	4.5	Monitor pest control effectiveness.			
	4.6	Record pest control activities.			
	4.7	Report persistent infestations.			
LO5: <i>Manage feed safety incidents.</i>	5.1	Detect feed safety incidents promptly.			
	5.2	Isolate affected production batches.			
	5.3	Investigate causes of feed contamination.			
	5.4	Coordinate corrective actions.			
	5.5	Verify effectiveness of corrective measures.			
	5.6	Notify relevant personnel according to organizational procedures.			
	5.7	Complete feed safety incident reports.			
LO6: <i>Maintain feed safety and biosecurity documentation.</i>	6.1	Maintain feed safety inspection records.			
	6.2	Update sanitation records.			
	6.3	Maintain pest control records.			
	6.4	Update feed traceability records.			
	6.5	Prepare feed safety performance reports.			
	6.6	Archive feed safety documentation correctly.			
	6.7	Maintain document control according to quality management procedures.			
LO7: <i>Monitor compliance with safety standards.</i>	7.1	Check adherence to hygiene rules.			
	7.2	Inspect pest control measures.			
	7.3	Verify labeling accuracy.			
	7.4	Audit disposal records.			
	7.5	Report non-compliance.			
	7.6	Suggest improvements.			
	7.7	Follow up on corrective actions.			
Learners Signature:			Date:		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		



UNIT 009: FEED PRODUCTION EQUIPMENT MAINTENANCE

Unit reference number: AGR/FPD/009/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

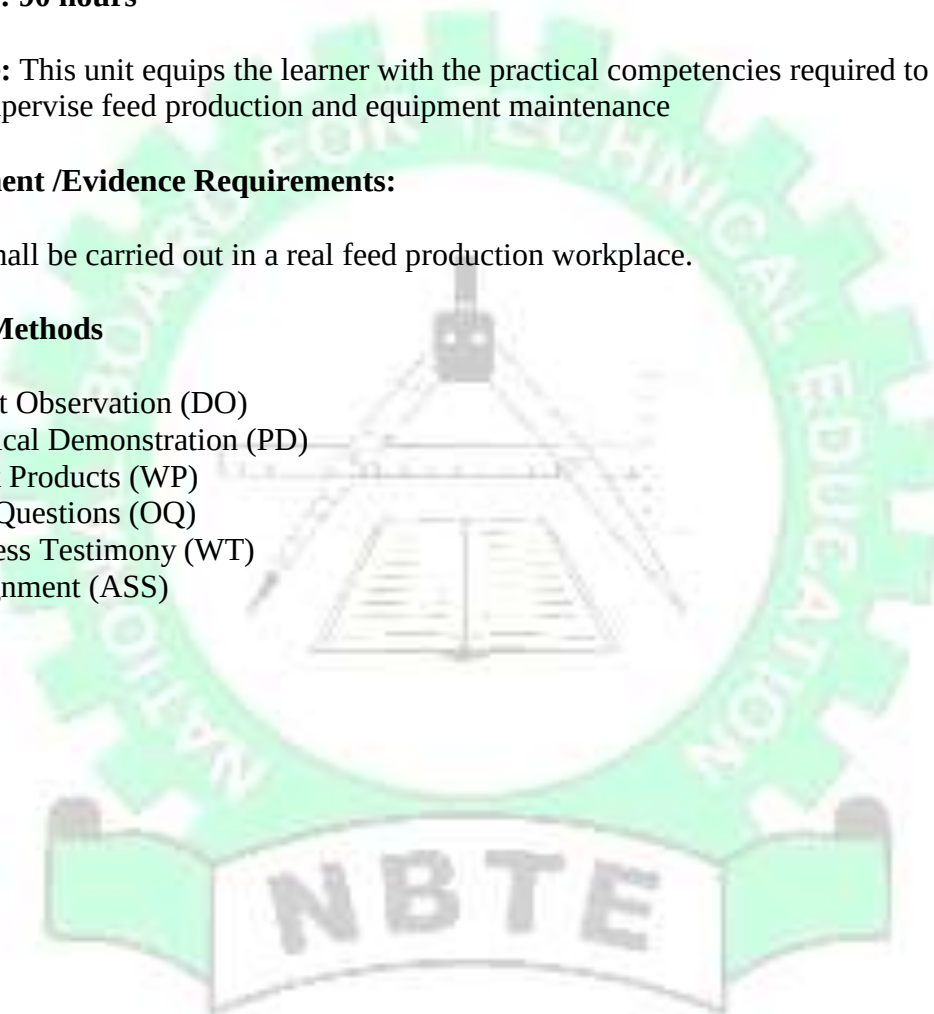
Unit Purpose: This unit equips the learner with the practical competencies required to plan, implement, supervise feed production and equipment maintenance

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 009: Feed Production Equipment Maintenance

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Plan equipment maintenance activities.	1.1 1.1	Prepare preventive maintenance schedules.			
	1.2 1.2	Prioritize maintenance activities according to production requirements.			
	1.3 1.3	Perform maintenance responsibilities.			
	1.4 1.4	Schedule equipment shutdowns for maintenance.			
	1.5 1.5	Verify availability of maintenance tools and spare parts.			
	1.6 1.6	Coordinate maintenance activities with production schedules.			
	1.7 1.7	Ensure maintenance planning schedules.			
LO2: Supervise routine equipment inspection.	2.1	Conduct routine inspections of feed production equipment.			
	2.2	Verify operational condition of machines.			
	2.3	Identify worn, damaged or defective components.			
	2.4	Assess equipment performance during operation.			
	2.5	Verify effectiveness of safety devices and guards.			
	2.6	Report equipment defects requiring maintenance.			
	2.7	Maintain equipment inspection records.			
LO3: Coordinate preventive maintenance operations.	3.1	Supervise equipment cleaning before maintenance.			
	3.2	Coordinate lubrication of moving parts.			
	3.3	Supervise adjustment of belts,			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
		chains and bearings.			
	3.4	Verify replacement of worn components.			
	3.5	Ensure maintenance activities comply with manufacturers' specifications.			
	3.6	Conduct post-maintenance operational checks.			
	3.7	Document preventive maintenance activities.			
LO4: Supervise corrective maintenance activities.	4.1	Verify reported equipment faults.			
	4.2	Isolate faulty equipment before repair.			
	4.3	Coordinate repair of defective equipment.			
	4.4	Verify replacement of defective parts.			
	4.5	Conduct operational testing after repairs.			
	4.6	Authorize return of repaired equipment to production.			
	4.7	Ensure corrective maintenance schedules.			
LO5: Manage maintenance resources.	5.1	Monitor availability of spare parts.			
	5.2	Verify maintenance tool inventory.			
	5.3	Control maintenance material usage.			
	5.4	Coordinate procurement of maintenance materials.			
	5.5	Inspect maintenance stores.			
	5.6	Monitor maintenance costs.			
	5.7	Prepare maintenance resource reports.			
LO6: Monitor	6.1	Monitor equipment downtime.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
equipment performance and maintenance effectiveness.	6.2	Evaluate equipment reliability after maintenance.			
	6.3	Analyse recurring equipment failures.			
	6.4	Recommend equipment performance improvements.			
	6.5	Verify implementation of maintenance recommendations.			
	6.6	Prepare equipment performance reports.			
	6.7	Keep equipment maintenance history records.			
LO7: Monitor compliance with safety standards.	7.1	Coordinate maintenance programmes effectively.			
	7.2	Supervise preventive and corrective maintenance activities.			
	7.3	Ensure equipment operates safely and efficiently.			
	7.4	Optimize equipment availability and reliability.			
	7.5	Ensure complete maintenance documentation.			
	7.6	Evaluate maintenance performance against operational targets.			
	7.7	Perform maintenance supervision in compliance with occupational health and safety requirements, manufacturers' recommendations, quality management systems and organizational policies.			
Learners Signature:			Date:		
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
EQA Signature (if sampled)			Date:	



UNIT 010: FEED PACKAGING AND DISTRIBUTION

Unit reference number: AGR/FPD/010/L4

NSQ level: 4

Credit value: 4

Guided learning hours: 40

Practice time: 120 hours

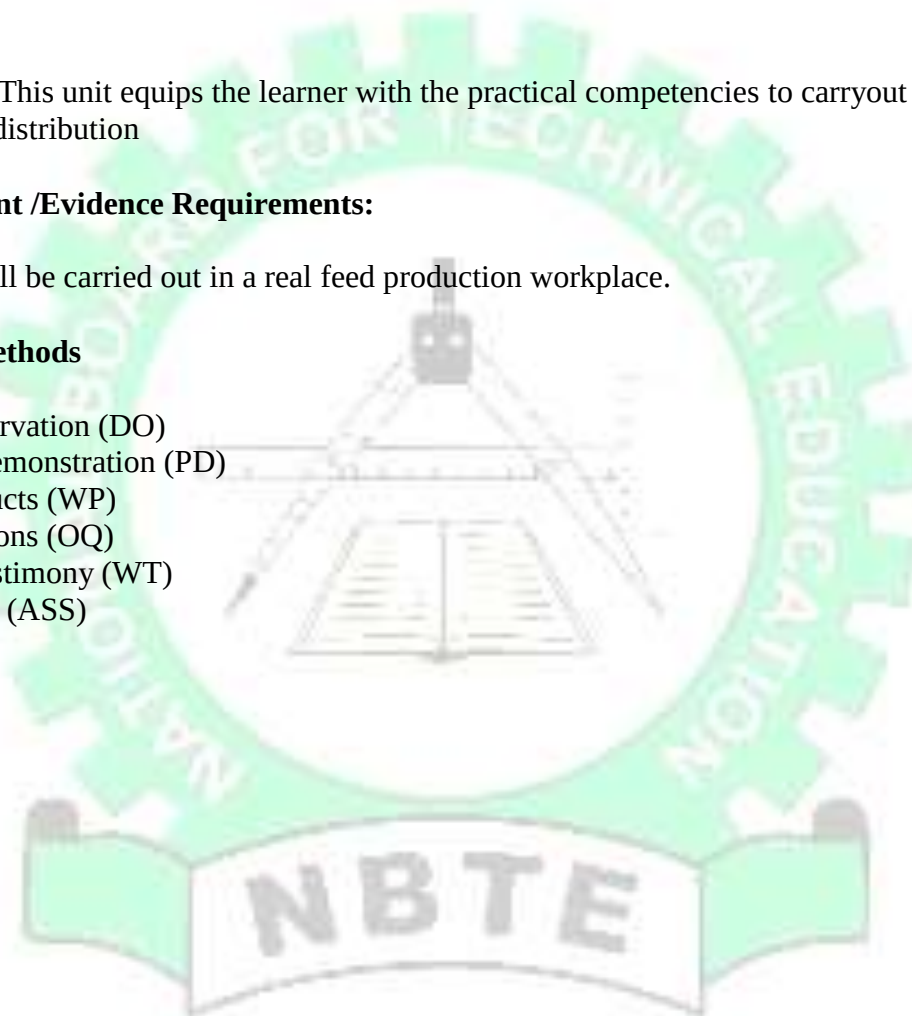
Unit Purpose: This unit equips the learner with the practical competencies to carryout feed packaging and distribution

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 010: Feed Packaging and Distribution

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Prepare feed and packaging materials for packaging operations.	1.1 1.1	Identify feed ready for packaging.			
	1.2 1.2	Select appropriate packaging materials.			
	1.3 1.3	Inspect packaging materials for quality.			
	1.4 1.4	Prepare packaging equipment for use.			
	1.5 1.5	Calibrate weighing equipment.			
	1.6 1.6	Observe hygiene requirements before packaging.			
	1.7 1.7	Wear appropriate PPE.			
LO2: Package animal feed according to standard procedures.	2.1	Weigh feed accurately.			
	2.2	Fill packages without contamination.			
	2.3	Seal packages securely.			
	2.4	Label packages correctly.			
	2.5	Verify package weight and quality.			
	2.6	Remove defective packages.			
	2.7	Arrange packaged feed for storage.			
LO3: Store packaged feed appropriately.	3.1	Stack feed correctly.			
	3.2	Maintain proper storage conditions.			
	3.3	Protect feed from moisture and pests.			
	3.4	Apply stock rotation (FIFO).			
	3.5	Monitor feed quality during storage.			
	3.6	Separate damaged packages.			
	3.7	Maintain storage cleanliness.			
LO4: Prepare packaged feed for distribution.	4.1	Verify customer orders.			
	4.2	Pick the correct feed products.			
	4.3	Inspect packages before dispatch.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	4.4	Prepare delivery documents.			
	4.5	Organize feed for loading.			
	4.6	Protect feed during handling.			
	4.7	Confirm dispatch quantities.			
LO5: Distribute packaged feed safely and efficiently.	5.1	Load feed safely onto transport vehicles.			
	5.2	Secure packages during transportation.			
	5.3	Transport feed under suitable conditions.			
	5.4	Deliver feed according to schedule.			
	5.5	Obtain proof of delivery.			
	5.6	Report damaged or missing items.			
LO6: Maintain packaging and distribution records..	6.1	Record packaged feed quantities.			
	6.2	Record batch numbers.			
	6.3	Update inventory records.			
	6.4	Complete dispatch records.			
	6.5	Maintain delivery records.			
	6.6	Prepare stock reports.			
	6.7	File records according to organizational procedures.			
LO7: Apply occupational health, safety, and environmental practices.	7.1	Use PPE correctly.			
	7.2	Follow workplace safety procedures.			
	7.3	Maintain good housekeeping.			
	7.4	Handle feed and packaging safely.			
	7.5	Dispose of packaging waste appropriately.			
	7.6	Respond to emergencies according to procedures.			
	7.7	Comply with environmental and quality standards.			
Learners Signature:			Date:		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		



UNIT 011: PRODUCTION DOCUMENTATION AND INVENTORY CONTROL

Unit reference number: AGR/FPD/011/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

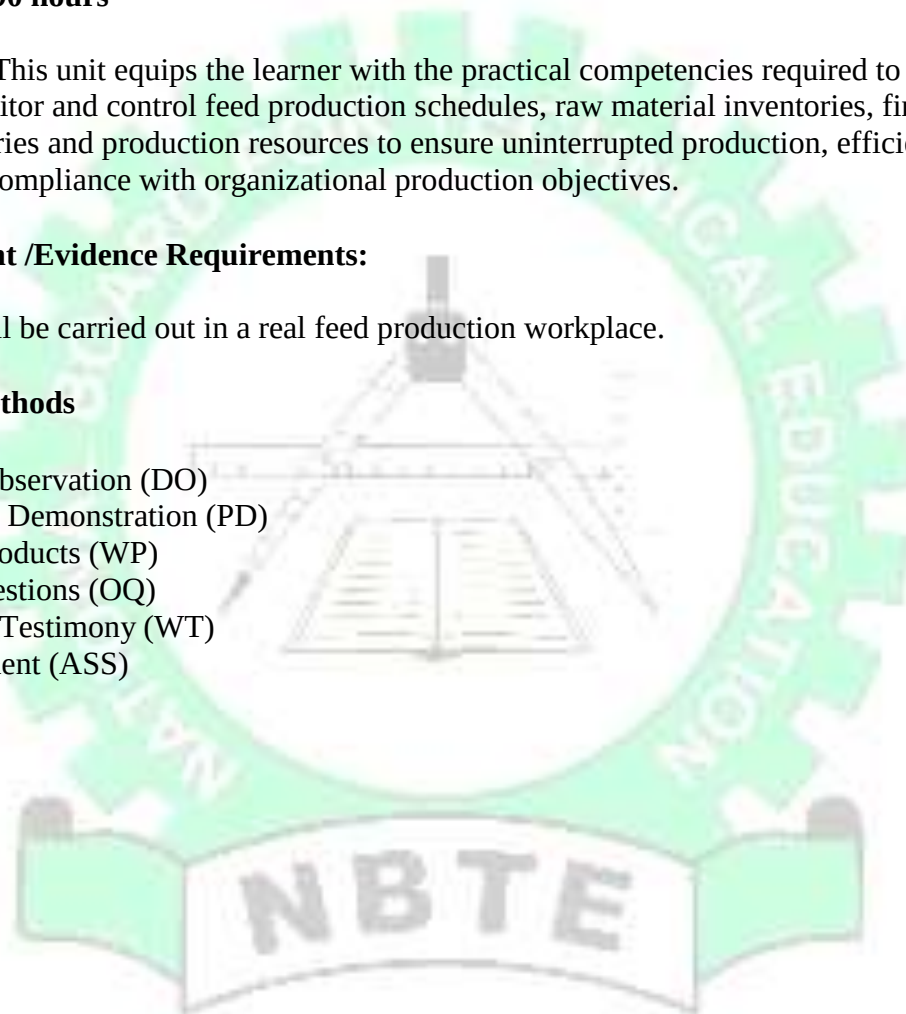
Unit Purpose: This unit equips the learner with the practical competencies required to plan, coordinate, monitor and control feed production schedules, raw material inventories, finished product inventories and production resources to ensure uninterrupted production, efficient resource utilization and compliance with organizational production objectives.

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 011: Production Documentation and Inventory Control

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Plan feed safety and biosecurity programmes.	1.1	Prepare feed safety implementation plans.			
	1.2	Identify feed safety hazards within production facilities.			
	1.3	Establish biosecurity control points.			
	1.4	Allocate feed safety responsibilities to personnel.			
	1.5	Prepare feed safety inspection schedules.			
	1.6	Coordinate feed safety activities across production sections.			
	1.7	Maintain feed safety planning records.			
LO2: Recognize feed safety hazards	2.1				
	2.2	Identify chemical contamination signs.			
	2.3	Detect biological hazards (mold, bacteria etc.).			
	2.4	Recognize physical hazards (stones, plastics etc.).			
	2.5	Distinguish safe vs unsafe feed.			
	2.6	Report hazards promptly.			
	2.7	Record hazard details in logbook.			
	2.8	Suggest preventive measures.			
LO3: Apply hygiene protocols	3.1	Wash hands before handling feed.			
	3.2	Clean tools before and after use.			
	3.3	Wear protective clothing, gears and mask.			
	3.4	Disinfect storage surfaces regularly to avoid build up of			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
		microbes.			
	3.5	Avoid cross-contamination.			
	3.6	Dispose off waste properly.			
	3.7	Follow workplace hygiene rules.			
LO4: Implement pest control measures	4.1	Identify pest activity signs.			
	4.2	Place traps in storage areas.			
	4.3	Apply approved pesticides safely.			
	4.4	Detect and Seal entry points for rodents.			
	4.5	Monitor pest control effectiveness.			
	4.6	Record pest control activities.			
	4.7	Report persistent infestations.			
LO5: Manage feed safety incidents.	5.1	Detect feed safety incidents promptly.			
	5.2	Isolate affected production batches.			
	5.3	Investigate causes of feed contamination.			
	5.4	Coordinate corrective actions.			
	5.5	Verify effectiveness of corrective measures.			
	5.6	Notify relevant personnel according to organizational procedures.			
	5.7	Complete feed safety incident reports.			
LO6: Maintain feed safety and biosecurity documentation.	6.1	Maintain feed safety inspection records.			
	6.2	Update sanitation records.			
	6.3	Maintain pest control records.			
	6.4	Update feed traceability records.			
	6.5	Prepare feed safety performance reports.			
	6.6	Archive feed safety documentation correctly.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	6.7	Maintain document control according to quality management procedures.			
LO7: Monitor compliance with safety standards.	7.1	Check adherence to hygiene rules.			
	7.2	Inspect pest control measures.			
	7.3	Verify labeling accuracy.			
	7.4	Keep Audit disposal records.			
	7.5	Report non-compliance.			
	7.6	Suggest improvements.			
	7.7	Follow up on corrective actions.			
Learners Signature:			Date:		
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		

UNIT 012: FEED MARKETING

Unit reference number: AGR/FPD/012/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

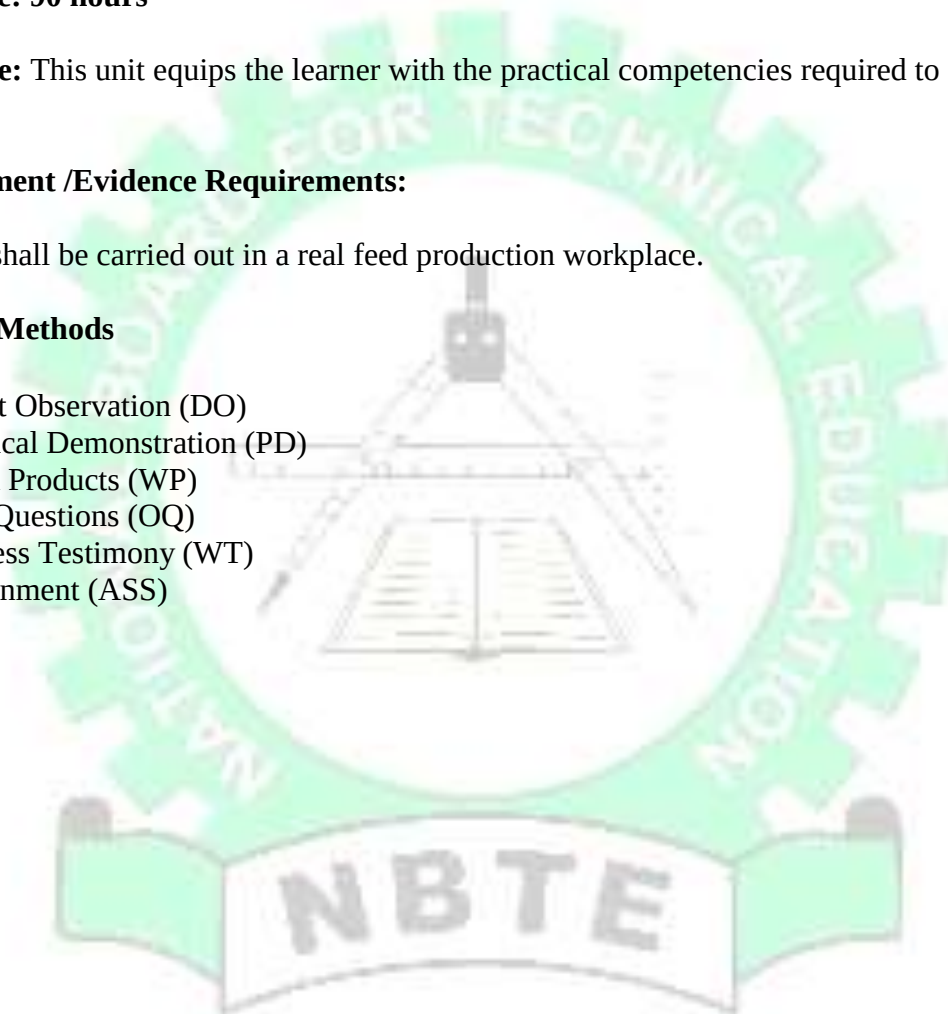
Unit Purpose: This unit equips the learner with the practical competencies required to carryout feed marketing.

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 012: Feed Marketing

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Plan feed safety and biosecurity programmes.	1.1	Recognize local livestock farmers as primary customers.			
	1.2	Identify commercial livestock producers.			
	1.3	Distinguish between small-scale and large-scale buyers.			
	1.4	Record customer categories in notebooks.			
	1.5	Report potential markets to supervisors.			
	1.6	Suggest new customer groups.			
	1.7	Follow supervisor's instructions on market focus.			
LO2: Promote feed products to customers	2.1	Present feed samples to farmers.			
	2.2	Explain basic product benefits.			
	2.3	Use posters or flyers for promotion.			
	2.4	Participate in local agricultural fairs.			
	2.5	Record promotional activities.			
	2.6	Report customer responses.			
	2.7	Suggest improvements in promotion.			
LO3: Demonstrate product knowledge during marketing	3.1	State key ingredients of feed.			
	3.2	Explain nutritional benefits simply.			
	3.3	Highlight storage and handling instructions.			
	3.4	Answer basic customer questions.			
	3.5	Record frequently asked questions.			
	3.6	Report gaps in product knowledge.			
	3.7	Suggest training needs.			
LO4: Handle	4.1	Listen attentively to customer			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
customer inquiries and feedback		concerns.			
	4.2	Record inquiries in notebooks.			
	4.3	Provide simple responses.			
	4.4	Refer complex questions to supervisors.			
	4.5	Record customer feedback.			
	4.6	Report feedback outcomes.			
	4.7	Suggest corrective actions.			
LO5: Support feed sales activities	5.1	Assist in packaging feed for customers.			
	5.2	Record sales transactions.			
	5.3	Note customer details.			
	5.4	Deliver feed to local buyers.			
	5.5	Prevent errors in sales records.			
	5.6	Report sales activities.			
	5.7	Suggest improvements in sales handling.			
LO6: Maintain marketing records	6.1	Record promotional activities.			
	6.2	Note customer inquiries.			
	6.3	Record sales transactions.			
	6.4	Maintain notebooks systematically.			
	6.5	Submit records to supervisors.			
	6.6	Keep records safe.			
	6.7	Review records regularly.			
LO7: Report marketing outcomes	7.1	Summarize promotional activities.			
	7.2	Report customer feedback.			
	7.3	Record sales outcomes.			
	7.4	Suggest improvements.			
	7.5	Maintain confidentiality.			
	7.6	File reports properly.			
	7.7	Follow up on feedback.			
Learners Signature:			Date:		
Assessors Signature:			Date:		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		



UNIT 013: ALTERNATIVE FEED RESOURCES (OPTIONAL)

Unit reference number: AGR/FPD/013/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

Unit Purpose:

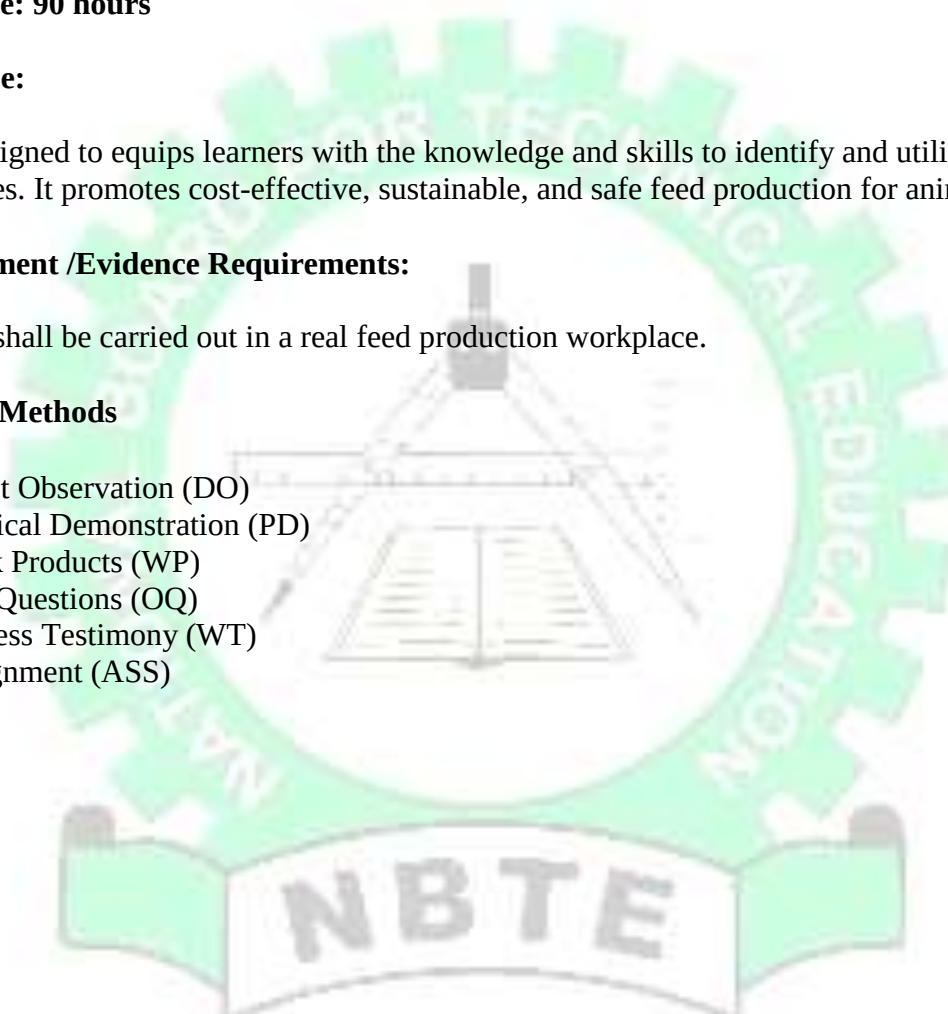
This unit designed to equip learners with the knowledge and skills to identify and utilize alternative feed resources. It promotes cost-effective, sustainable, and safe feed production for animal nutrition.

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 013: Alternative Feed Resources

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: <i>Identify local alternative feed sources</i>	1.1	List crop residues available locally for alternative feed ingredients.			
	1.2	Identify agro-industrial by-products.			
	1.3	Recognize forage plants.			
	1.4	Collect samples of alternatives.			
	1.5	Describe possible Toxins and Anti-Nutritional Factors (ANFs)			
	1.6	Distinguish edible vs non-edible materials.			
	1.7	Report findings to supervisor.			
LO2: <i>Process alternative feed materials</i>	2.1	Grind crop residues.			
	2.2	Dry materials properly.			
	2.3	Ferment feed where applicable.			
	2.4	Mix ingredients uniformly.			
	2.5	Store processed feed safely.			
	2.6	Prevent contamination during processing.			
	2.7	Record processing steps.			
LO3: <i>Test palatability with livestock</i>	3.1	Prepare feed samples for trial.			
	3.2	Offer feed to small groups of animals.			
	3.3	Observe feeding behavior.			
	3.4	Record acceptance rates.			
	3.5	Compare with conventional feed intake.			
	3.6	Adjust processing for better palatability.			
	3.7	Report trial results.			
LO4: <i>Ensure cost-effectiveness</i>	4.1	Calculate cost per kilogram.			
	4.2	Compare with market feed prices.			
	4.3	Identify cheaper alternatives.			
	4.4	Record cost analysis.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	4.5	Suggest cost-saving options.			
	4.6	Monitor feed expenses.			
	4.7	Report financial benefits.			
LO5: Apply safe preparation methods	5.1	Wash tools before preparation.			
	5.2	Dry materials to safe moisture levels.			
	5.3	Avoid harmful additives.			
	5.4	Store prepared feed in clean containers.			
	5.5	Prevent pest contamination.			
	5.6	Label prepared feed correctly.			
	5.7	Record preparation activities.			
LO6: Promote sustainable feed practices	6.1	Encourage use of local resources.			
	6.2	Reduce reliance on imported feed.			
	6.3	Share findings with peers.			
	6.4	Apply eco-friendly processing methods.			
	6.5	Minimize waste during preparation.			
	6.6	Record sustainability practices.			
	6.7	Report benefits to management.			
LO7: Evaluate nutritional value	7.1 7.1	Measure crude protein content.			
	7.2 7.2	Assess fiber levels.			
	7.3 7.3	Estimate energy value.			
	7.4 7.4	Measure fat content			
	7.5 7.5	Compare with conventional feed.			
	7.6 7.6	Record nutritional data.			
	7.7 7.7	Identify deficiencies.			
	7.8 7.8	Suggest supplementation needs.			
Learners Signature:			Date:		
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
EQA Signature (if sampled)			Date:	



Unit 014: Environmental and Waste Management (Optional)

Unit reference number: AGR/FPD/014/L4

NSQ level: 4

Credit value: 3

Guided learning hours: 30

Practice time: 90 hours

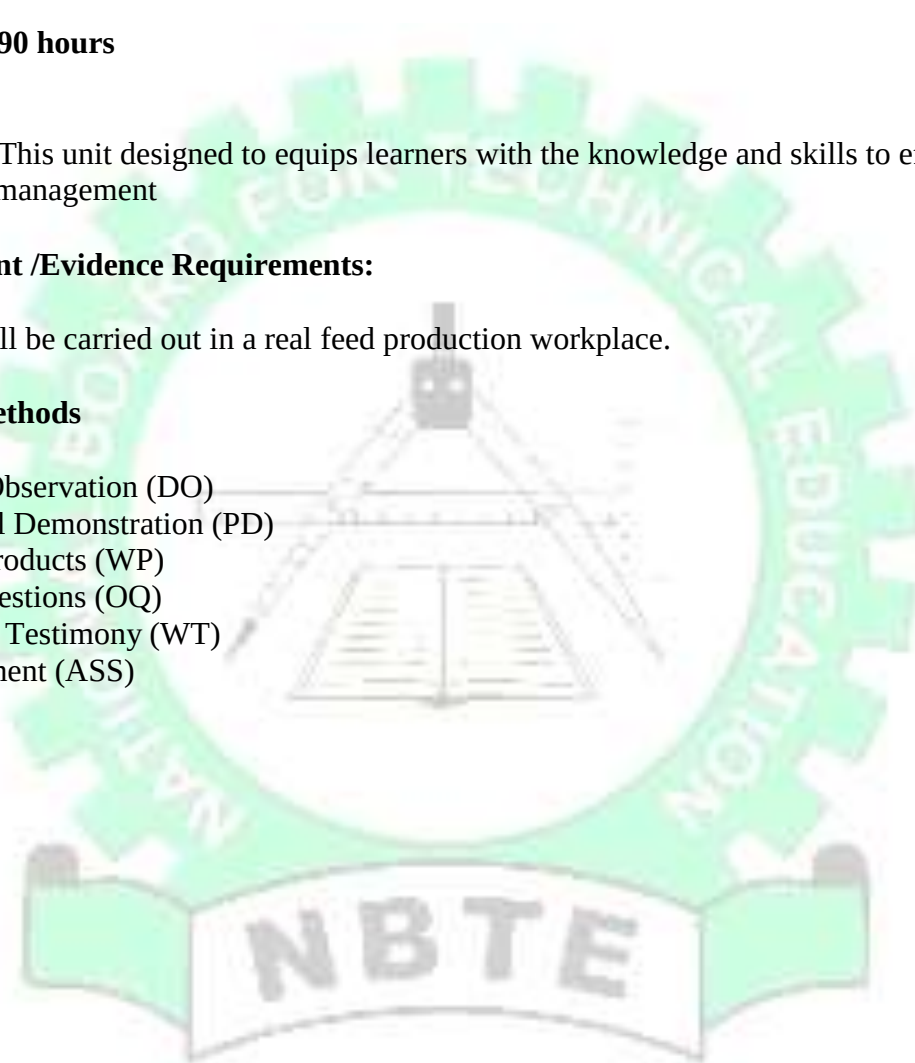
Unit Purpose: This unit designed to equips learners with the knowledge and skills to effectively carryout waste management

Unit Assessment /Evidence Requirements:

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 014: Environmental and Waste Management (Optional)

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
LO1: Plan environmental and waste management activities.	1.1	Prepare environmental management schedules.			
	1.2	Identify waste generation points within the feed mill.			
	1.3	Develop waste segregation plans.			
	1.4	Allocate waste management responsibilities to personnel.			
	1.5	Schedule routine environmental inspections.			
	1.6	Coordinate environmental management activities across production sections.			
	1.7	Maintain environmental planning records.			
LO2: Monitor waste segregation and handling.	2.1	Verify segregation of production waste according to waste categories.			
	2.2	Supervise collection of recyclable materials.			
	2.3	Monitor handling of hazardous waste.			
	2.4	Verify correct labelling of waste containers.			
	2.5	Supervise transportation of waste to designated holding areas.			
	2.6	Prevent environmental contamination during waste handling.			
	2.7	Maintain waste handling records.			
LO3: Coordinate waste disposal and recycling activities.	3.1	Supervise disposal of biodegradable waste.			
	3.2	Coordinate recycling of reusable materials.			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
	3.3	Verify disposal of hazardous waste according to regulatory requirements.			
	3.4	Monitor waste disposal contractors where applicable.			
	3.5	Prevent illegal waste disposal practices.			
	3.6	Evaluate waste reduction initiatives.			
	3.7	Maintain waste disposal documentation.			
LO4: Monitor corrective maintenance activities.	4.1	Monitor dust control systems during production.			
	4.2	Supervise control of air emissions from production equipment.			
	4.3	Monitor wastewater management practices.			
	4.4	Verify cleanliness of production surroundings.			
	4.5	Coordinate pollution prevention activities.			
	4.6	Monitor environmental compliance throughout operations.			
	4.7	Prepare environmental inspection reports.			
LO5: Promote efficient resource utilization.	5.1	Monitor utilization of feed ingredients to minimize waste.			
	5.2	Supervise efficient use of packaging materials.			
	5.3	Monitor water consumption during production.			
	5.4	Monitor energy utilization of production equipment.			
	5.5	Implement resource conservation measures.			
	5.6	Recommend resource efficiency			

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
		improvements.			
	5.7	Maintain resource utilization records.			
LO6: Maintain environmental management records.	6.1	Prepare waste generation reports.			
	6.2	Maintain waste disposal records.			
	6.3	Maintain environmental inspection records.			
	6.4	Update pollution control records.			
	6.5	Prepare environmental performance reports.			
	6.6	Archive environmental documentation.			
	6.7	Verify completeness of environmental records.			
LO7: Demonstrate competency in environmental and waste management.	7.1	Plan and coordinate waste management programmes effectively.			
	7.2	Supervise environmentally sustainable production practices.			
	7.3	Ensure compliance with environmental regulations.			
	7.4	Promote recycling and waste reduction initiatives.			
	7.5	Optimize utilization of production resources.			
	7.6	Prepare environmental management reports.			
	7.7	Perform environmental and waste management activities in compliance with environmental regulations, quality management systems, occupational health and safety requirements and organizational policies.			
Learners Signature:			Date:		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type		Evidence Ref. Page No.
Assessors Signature:			Date:		
IQA Signature (if sampled)			Date:		
EQA Signature (if sampled)			Date:		



UNIT 015: DIGITAL PRODUCTION MANAGEMENT (OPTIONAL)

Unit Reference Number: AGR/FPD/015/L4

NSQ Level: 4

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose:

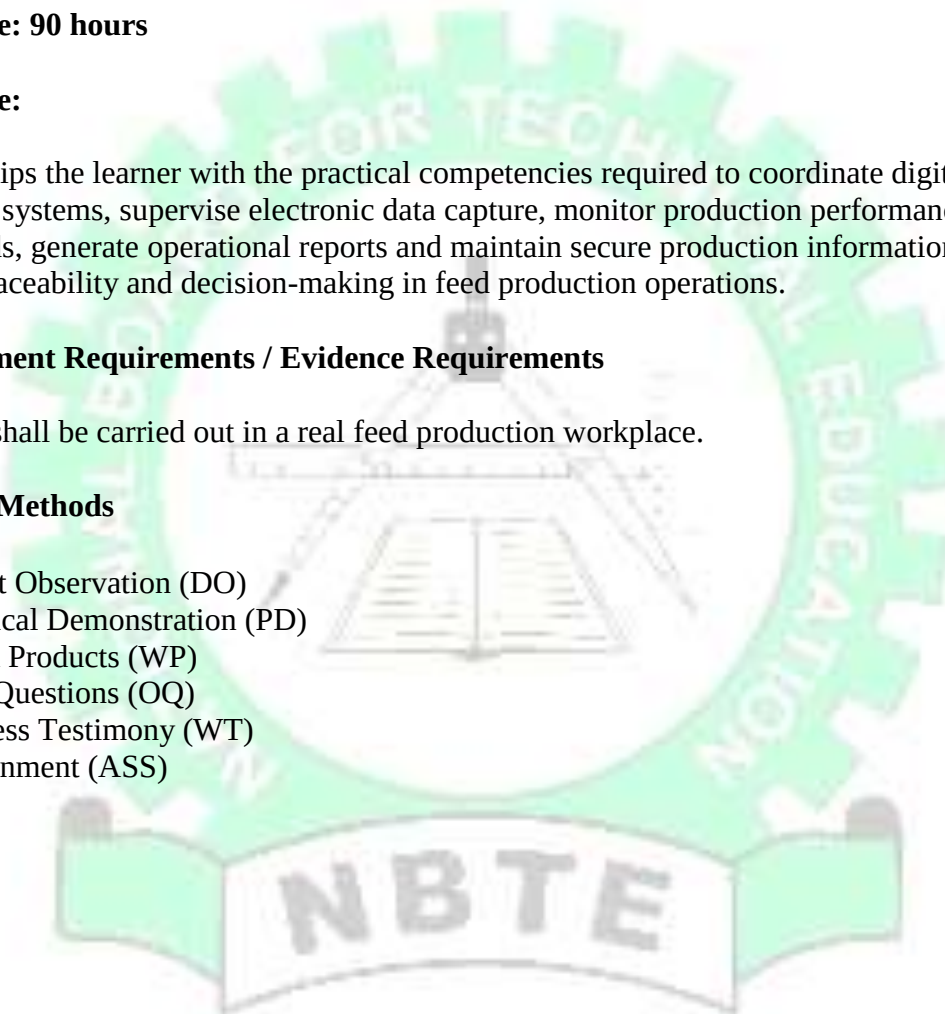
This unit equips the learner with the practical competencies required to coordinate digital production management systems, supervise electronic data capture, monitor production performance, manage digital records, generate operational reports and maintain secure production information to improve efficiency, traceability and decision-making in feed production operations.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

- Direct Observation (DO)
- Practical Demonstration (PD)
- Work Products (WP)
- Oral Questions (OQ)
- Witness Testimony (WT)
- Assignment (ASS)



Unit 015: Digital Production Management (Optional)

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Coordinate digital production systems.	1.1	Configure digital production systems for daily operations.									
	1.2	Verify user access rights before system operation.									
	1.3	Coordinate electronic production scheduling.									
	1.4	Monitor system functionality during production.									
	1.5	Coordinate digital communication among production units.									
	1.6	Resolve routine system operational issues.									
	1.7	Maintain digital production system records.									
LO2: Coordinate electronic production data capture.	2.1	Verify electronic recording of production batches.									
	2.2	Monitor digital recording of raw material consumption.									
	2.3	Verify electronic recording of finished feed output.									
	2.4	Monitor electronic recording of equipment performance.									
	2.5	Validate electronically captured production data.									
	2.6	Correct data entry errors according to organizational procedures.									
	2.7	Approve electronic production records.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO3: Monitor digital inventory and traceability systems.	3.1	Verify electronic inventory updates.		
	3.2	Monitor batch traceability using digital systems.		
	3.3	Verify electronic stock movement records.		
	3.4	Coordinate electronic tracking of finished products.		
	3.5	Reconcile digital inventory records with physical stock.		
	3.6	Correct inventory discrepancies using approved procedures.		
	3.7	Maintain digital traceability records.		
LO4: Generate digital production reports.	4.1	Generate daily production reports electronically.		
	4.2	Generate inventory status reports.		
	4.3	Generate production efficiency reports.		
	4.4	Generate equipment utilization reports.		
	4.5	Generate quality performance reports.		
	4.6	Verify report accuracy before distribution.		
	4.7	Distribute reports to authorized personnel.		
LO5: Maintain digital information security.	5.1	Monitor compliance with digital access controls.		
	5.2	Protect production data from unauthorized access.		
	5.3	Coordinate routine backup of production data.		
	5.4	Verify successful restoration of backup files where required.		
	5.5	Monitor compliance with organizational data security procedures.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
	5.6	Report digital security incidents promptly.									
	5.7	Maintain digital security records.									
LO6: Evaluate digital production performance.	6.1	Review digital production performance indicators.									
	6.2	Analyse electronic production reports.									
	6.3	Identify operational trends using digital data.									
	6.4	Recommend production improvements based on digital records.									
	6.5	Monitor implementation of approved improvements.									
	6.6	Evaluate effectiveness of digital production systems.									
	6.7	Document performance evaluation results.									
LO7: Demonstrate supervisory competency in digital production management.	7.1	Coordinate digital production management systems effectively.									
	7.2	Supervise electronic production data management.									
	7.3	Maintain digital inventory and traceability systems.									
	7.4	Generate accurate production management reports.									
	7.5	Maintain digital information security and confidentiality.									
	7.6	Evaluate digital production performance and recommend improvements.									
	7.7	Perform digital production management activities in compliance with organizational policies, quality management systems, food safety requirements and information security procedures.									
Learners Signature:						Date:					

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	





NATIONAL SKILLS QUALIFICATION (NSQ)

FEED PRODUCTION

LEVEL 5

JULY, 2026



NATIONAL SKILLS QUALIFICATION GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in Feed Production for the award of National Skills Qualifications (NSQ). It is aimed at producing NSQ Level 5 with the competencies in Feed Production. This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

This qualification is targeted at developing competence in Feed Production. This is focused on supervising feed production lines, manage quality assurance systems, control production efficiency, team and resource management, and ensure compliance with regulatory standards.

QUALIFICATION REQUIREMENTS

All Candidates must be:

At least Sixteen (16) years of age

Medically fit

Mentally fit (Mental alertness)

Achieved NSQ level 2 in Feed Production

Nigerian

Other nationals (should in addition present international passport and residence permit)

QUALIFICATION OBJECTIVES

To achieve this qualification, the learner should be able to:

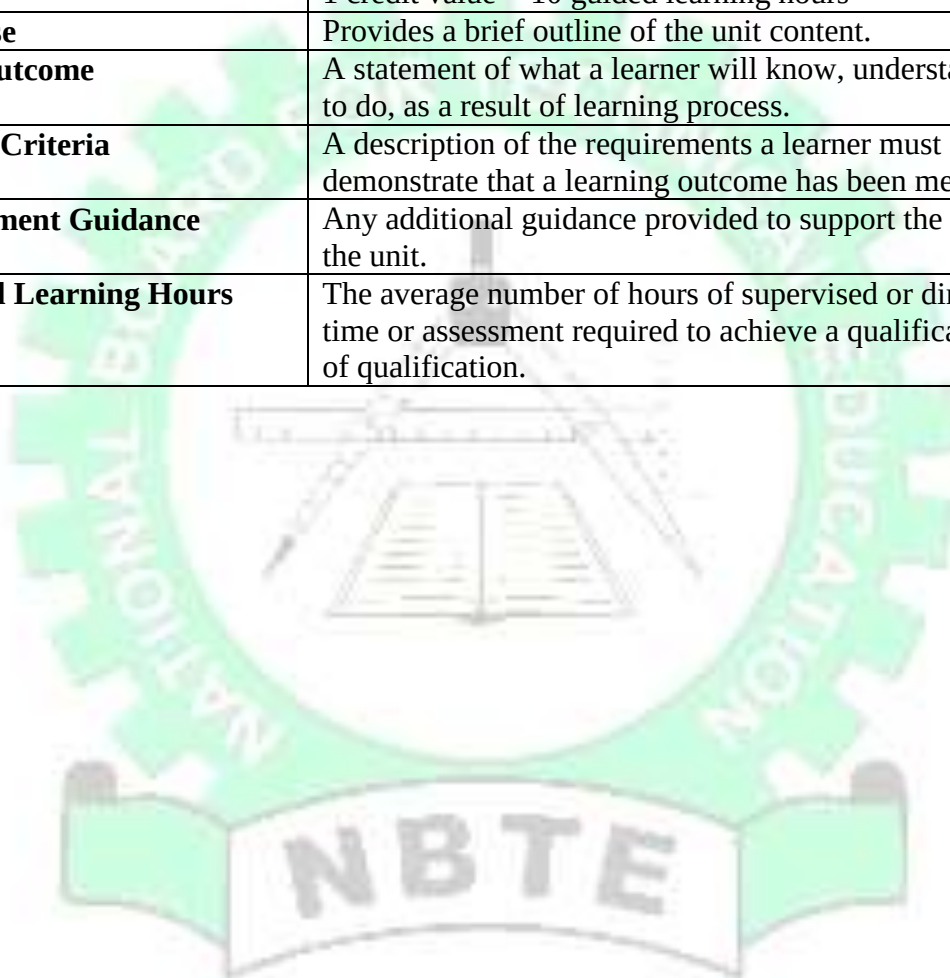
- i. Comply with occupational health, safety and environmental requirements in feed production
- ii. Communicate effectively with supervisors, colleagues, customers and other stakeholders in feed production
- iii. Work effectively as a member of a team to achieve feed production objectives
- iv. Manage feed mill production efficiently. It promotes optimal resource utilization, quality feed production, and cost-effective operations.
- v. Implement quality assurance practices in feed production. It ensures the production of safe, consistent, and high-quality animal feeds that meet industry standards.
- vi. Troubleshoot automated feed production systems and process control operations to ensure efficient production, consistent product quality, reduced downtime and compliance with operational procedures, feed safety standards and quality management systems.
- vii. Plan maintenance activities and manage feed mill assets effectively. It promotes equipment reliability, operational efficiency, and prolonged asset lifespan evaluate feed quality and meet the nutritional requirements of livestock. It supports efficient feeding practices, improved animal health, and optimal productivity.
- viii. Implement effective environmental and waste management practices in feed production. It promotes regulatory compliance, resource conservation, and sustainable industrial operations.
- ix. Assess, and manage workplace hazards and risks. It promotes a safe working environment, regulatory compliance, and the prevention of accidents and occupational illnesses.
- x. to lead teams and manage human resources effectively. It promotes workplace productivity, ethical leadership, and organizational performance. plan maintenance activities and manage

- feed mill assets effectively. It promotes equipment reliability, operational efficiency, and prolonged asset lifespan.
- xi. conduct research, foster innovation, and drive continuous improvement. It promotes evidence-based decision-making, problem-solving, and enhanced organizational performance.
 - xii. produce high-quality aquaculture feeds that meet the nutritional requirements of aquatic species. It promotes efficient feed production, sustainable aquaculture practices, and improved fish performance.
 - xiii. to produce safe, balanced, and high-quality pet feeds. It promotes compliance with quality standards, pet health, and efficient feed manufacturing practices. to ensure compliance with feed regulations and conduct effective audits. It promotes adherence to industry standards, product safety, and continuous quality improvement.
 - xiv. Develop, implement, manage, evaluate and continuously improve digital production systems and innovation initiatives to enhance operational efficiency, data-driven decision-making, traceability, automation, resource optimization and organizational competitiveness in feed production enterprises.



GENERAL GUIDE

Unit Title	Provides a clear explanation of the content of the unit.
Unit Number	The unique number assigned to the unit
Unit Reference	The unique reference number given to each unit at qualification approval by NBTE
Unit Level	Denotes the level of the unit within the National Skills Qualifications Framework NSQF.
Unit Credit Value	The value that has been given to the unit based on the expected learning time for an average learner. 1 credit value = 10 guided learning hours
Unit Purpose	Provides a brief outline of the unit content.
Learning Outcome	A statement of what a learner will know, understand or be able to do, as a result of learning process.
Assessment Criteria	A description of the requirements a learner must achieve to demonstrate that a learning outcome has been met.
Unit Assessment Guidance	Any additional guidance provided to support the assessment of the unit.
Unit Guided Learning Hours	The average number of hours of supervised or directed study time or assessment required to achieve a qualification or unit of qualification.



NATIONAL SKILLS QUALIFICATION TABLE LEVEL 5
FEED PRODUCTION SUPERVISOR I

Unit	Reference No.	Unit Title	Credit Value	Guided Learning Hours	Practice Hours	Remark
001	AGR/FPD/001/L5	Feed Formulation and Least-Cost Ration Development	6	60	360	Mandatory
002	AGR/FPD/002/L5	Feed Mill Production Planning	4	40	160	Mandatory
003	AGR/FPD/003/L5	Feed Quality Assurance	6	60	360	Mandatory
004	AGR/FPD/004/L5	Feed Mill Automation and Process Control	4	40	160	Mandatory
005	AGR/FPD/005/L5	Maintenance Planning and Asset Management	4	40	160	Mandatory
006	AGR/FPD/006/L5	Livestock Nutrition and Feed Evaluation	4	40	160	Mandatory
007	AGR/FPD/007/L5	Environmental and Waste Management	3	30	90	Mandatory
008	AGR/FPD/008/L5	Occupational Health, Safety and Risk Management	6	60	360	Mandatory
009	AGR/FPD/009/L5	Leadership and Human Resource Management	3	30	90	Mandatory
010	AGR/FPD/010/L5	Entrepreneurship and Feed Business Management	3	30	90	Mandatory
011	AGR/FPD/011/L5	Research, Innovation and Continuous Improvement	4	40	160	Mandatory
TOTAL			47	470	2,150	

OPTIONAL UNITS

Unit	Reference No.	Unit Title	Credit Value	Guided Learning Hours	Practice Hours
012	AGR/FPD/012/L5	Aquaculture Feed Production	6	60	360
013	AGR/FPD/013/L5	Pet Feed Production	6	60	360
014	AGR/FPD/014/L5	Feed Regulatory Compliance and Auditing	3	30	90
015	AGR/FPD/015/L5	Strategic Digital Production Systems and Innovation	3	30	90

		Management			
TOTAL			18	180	900

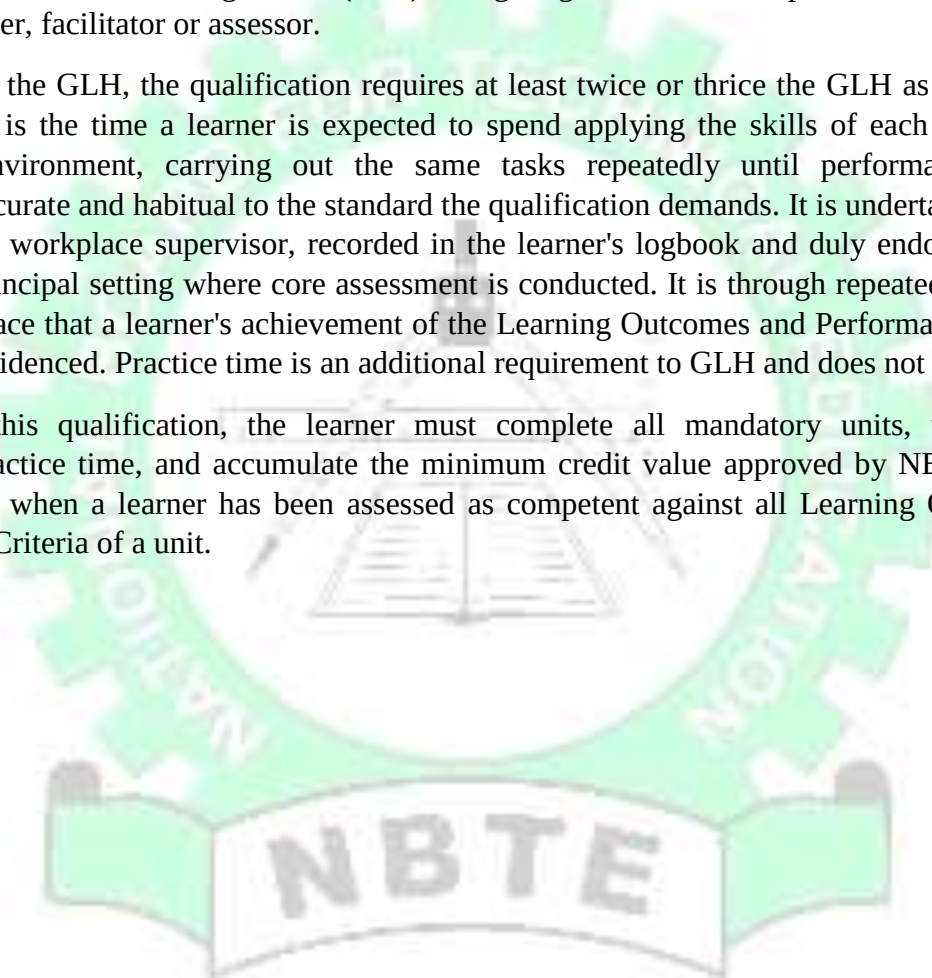
GLH = GUIDED LEARNING HOUR

QUALIFICATION STRUCTURE

This qualification comprises a total of fifteen (15) Mandatory Units, with a credit value of 18 and 180 Guided Learning Hours (GLH) across the full qualification. One (1) credit is equivalent to ten (10) GLH. Guided Learning Hours are the time a learner spends in the classroom, workshop and laboratory of the Skills Training Centre (STC), being taught, instructed, supervised or assessed by a qualified trainer, facilitator or assessor.

In addition to the GLH, the qualification requires at least twice or thrice the GLH as practice time. Practice time is the time a learner is expected to spend applying the skills of each unit in a real workplace environment, carrying out the same tasks repeatedly until performance becomes consistent, accurate and habitual to the standard the qualification demands. It is undertaken under the guidance of a workplace supervisor, recorded in the learner's logbook and duly endorsed. Practice time is the principal setting where core assessment is conducted. It is through repeated performance in the workplace that a learner's achievement of the Learning Outcomes and Performance Criteria is judged and evidenced. Practice time is an additional requirement to GLH and does not replace them.

To achieve this qualification, the learner must complete all mandatory units, undertake the prescribed practice time, and accumulate the minimum credit value approved by NBTE. Credit is awarded only when a learner has been assessed as competent against all Learning Outcomes and Performance Criteria of a unit.



UNIT 001: FEED FORMULATION AND LEAST-COST RATION DEVELOPMENT

Unit Reference Number: AGR/FPD/001/L5

NSQ Level: 5

Credit Value: 6

Guided Learning Hours: 60

Practice time: 180 hours

Unit Purpose

This unit is designed to equip learners with the knowledge and skills to formulate balanced, least-cost rations using appropriate feed ingredients. It promotes efficient feed utilization, reduced production costs, and optimal animal performance.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 001: Feed Formulation and Least-Cost Ration Development

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: <i>Prepare feed formulation requirements</i>	1.1	Identify nutrient requirements.		
	1.2	Assess available feed ingredients.		
	1.3	Determine ingredient specifications.		
	1.4	Collect feed composition data.		
	1.5	Verify ingredient quality.		
	1.6	Organize formulation resources.		
	1.7	Apply safety procedures.		
LO2: <i>Develop least-cost feed formulations</i>	2.1	Select formulation objectives.		
	2.2	Use formulation software/tools.		
	2.3	Calculate ingredient inclusion rates.		
	2.4	Optimize least-cost rations.		
	2.5	Balance nutrients.		
	2.6	Verify formulation accuracy.		
	2.7	Document formulations.		
LO3: <i>Validate feed formulations</i>	3.1	Prepare trial formulations.		
	3.2	Produce pilot batches.		
	3.3	Evaluate physical quality.		
	3.4	Assess nutrient adequacy.		
	3.5	Compare with standards.		
	3.6	Revise formulations.		
	3.7	Approve formulations.		
LO4: <i>Evaluate formulation performance</i>	4.1	Conduct feeding trials.		
	4.2	Monitor animal response.		
	4.3	Assess feed efficiency.		
	4.4	Analyze performance data.		
	4.5	Identify deficiencies.		
	4.6	Recommend improvements.		
	4.7	Document results.		
LO5: <i>Manage formulation records</i>	5.1	Record formulation data.		
	5.2	Update ingredient database.		
	5.3	Maintain formulation files.		
	5.4	Protect formulation records.		
	5.5	Retrieve records.		
	5.6	Prepare formulation reports.		
	5.7	Archive documentation.		
LO6: <i>Control formulation</i>	6.1	Verify raw materials.		
	6.2	Check calculations.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
quality	6.3	Monitor process consistency.		
	6.4	Confirm nutrient compliance.		
	6.5	Investigate deviations.		
	6.6	Implement corrective actions.		
	6.7	Review quality records.		
LO7: Apply occupational health, safety and environmental practices	7.1	Wear PPE correctly.		
	7.2	Follow workplace safety procedures.		
	7.3	Maintain hygiene.		
	7.4	Handle wastes appropriately.		
	7.5	Prevent contamination.		
	7.6	Respond to emergencies.		
	7.7	Comply with regulations.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 002: FEED MILL PRODUCTION PLANNING

Unit Reference Number: AGR/FPD/002/L5

NSQ Level: 5

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose:

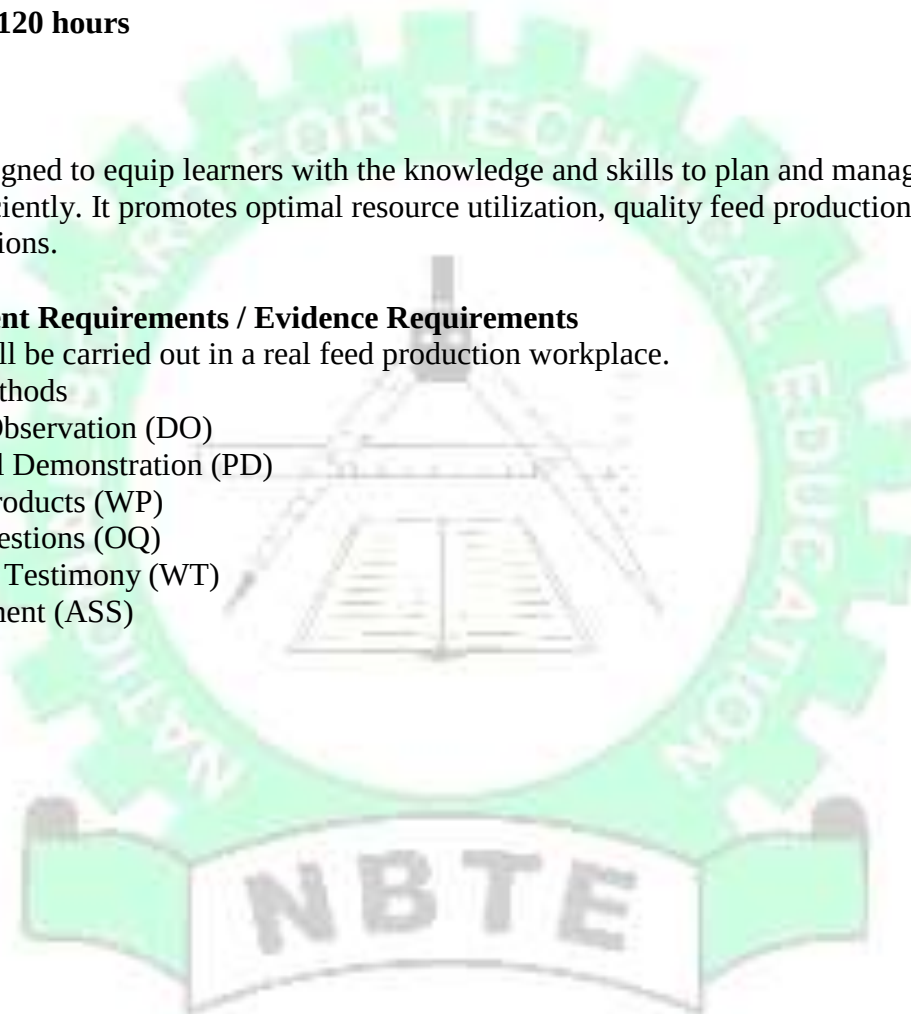
This unit is designed to equip learners with the knowledge and skills to plan and manage feed mill production efficiently. It promotes optimal resource utilization, quality feed production, and cost-effective operations.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 002: Feed Mill Production Planning

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: <i>Plan feed production activities</i>	1.1	Review production orders.		
	1.2	Estimate material requirements.		
	1.3	Schedule production.		
	1.4	Allocate resources.		
	1.5	Coordinate workforce.		
	1.6	Confirm equipment readiness.		
	1.7	Document plans.		
LO2: <i>Manage raw material supply</i>	2.1	Forecast demand.		
	2.2	Monitor inventory.		
	2.3	Verify deliveries.		
	2.4	Inspect materials.		
	2.5	Store materials.		
	2.6	Control stock rotation.		
	2.7	Maintain records.		
LO3: <i>Coordinate production operations</i>	3.1	Issue work instructions.		
	3.2	Monitor workflow.		
	3.3	Balance production lines.		
	3.4	Resolve bottlenecks.		
	3.5	Track productivity.		
	3.6	Communicate updates.		
	3.7	Record output.		
LO4: <i>Control production quality</i>	4.1	Inspect in-process products.		
	4.2	Verify specifications.		
	4.3	Collect samples.		
	4.4	Review quality results.		
	4.5	Correct deviations.		
	4.6	Approve batches.		
	4.7	Document findings.		
LO5: <i>Manage production schedules</i>	5.1	Monitor timelines.		
	5.2	Adjust schedules.		
	5.3	Coordinate maintenance.		
	5.4	Minimize downtime.		
	5.5	Optimize capacity.		
	5.6	Review performance.		
	5.7	Prepare reports.		
LO6: <i>Evaluate production</i>	6.1	Calculate productivity.		
	6.2	Assess resource utilization.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.				
The learner will:		The learner can:										
<i>efficiency</i>	6.3	Analyze production losses.										
	6.4	Recommend improvements.										
	6.5	Implement corrective actions.										
	6.6	Review Key Performance Indicators (KPIs).										
	6.7	Document outcomes.										
LO7: <i>Apply occupational health, safety and environmental practices</i>	7.1	Use PPE correctly.										
	7.2	Maintain safe operations.										
	7.3	Control hazards.										
	7.4	Manage waste.										
	7.5	Prevent pollution.										
	7.6	Respond to emergencies.										
	7.7	Comply with regulations.										
Learners Signature:		Date:										
Assessors Signature:		Date:										
IQA Signature (if sampled)		Date:										
EQA Signature (if sampled)		Date:										

UNIT 003: FEED QUALITY ASSURANCE

Unit Reference Number: AGR/FPD/003/L5

NSQ Level: 5

Credit Value: 6

Guided Learning Hours: 60

Practice time: 180 hours

Unit Purpose

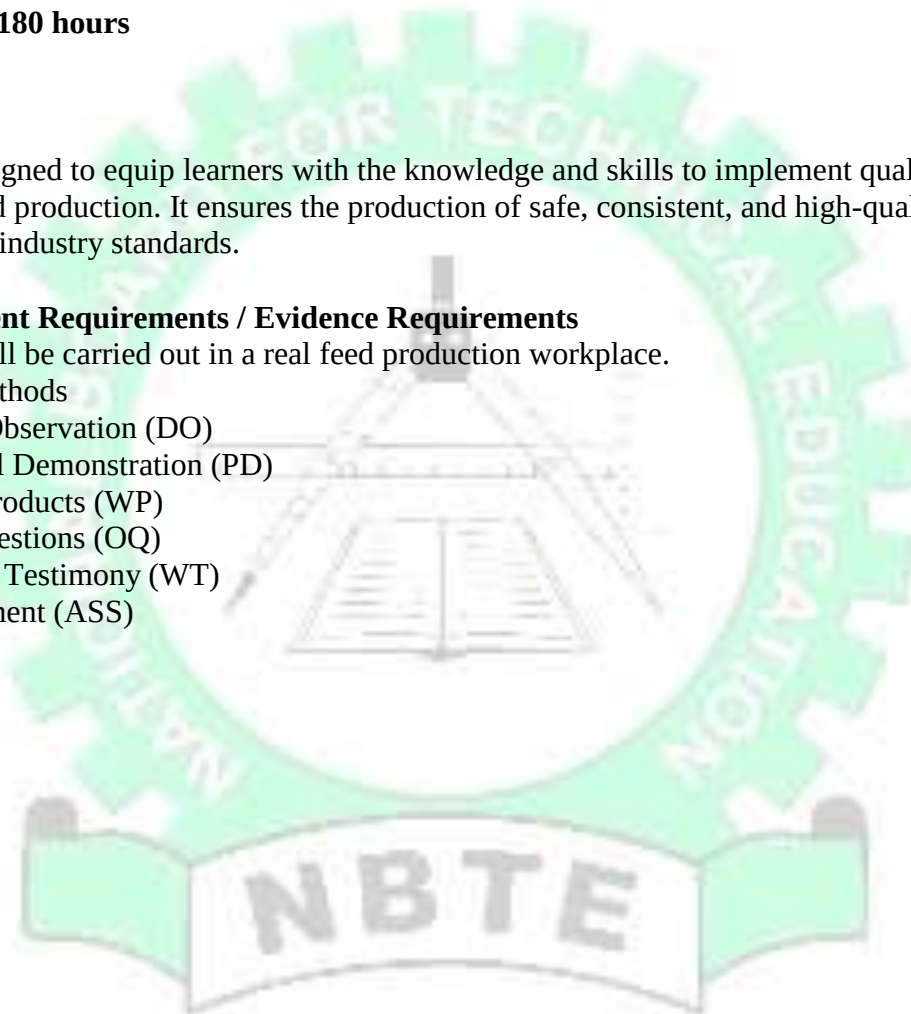
This unit is designed to equip learners with the knowledge and skills to implement quality assurance practices in feed production. It ensures the production of safe, consistent, and high-quality animal feeds that meet industry standards.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 003: Feed Quality Assurance

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Implement systematic feed quality inspection protocols	1.1	Develop inspection checklists based on standards.									
	1.2	Supervise routine visual and physical feed checks.									
	1.3	Train junior staff on inspection procedures.									
	1.4	Document inspection outcomes systematically.									
	1.5	Identify deviations from quality benchmarks.									
	1.6	Recommend corrective measures.									
	1.7	Review inspection records for consistency.									
LO2: Conduct standardized feed sampling and laboratory testing	2.1	Apply statistical sampling methods.									
	2.2	Ensure sample integrity during collection and storage.									
	2.3	Perform proximate analysis (moisture, protein, fiber, ash).									
	2.4	Conduct rapid diagnostic tests for contaminants.									
	2.5	Interpret laboratory results against regulatory standards.									
	2.6	Maintain calibration of testing equipment.									
	2.7	Prepare technical reports on findings.									
LO3: Manage feed storage and preservation systems	3.1	Design storage layouts for optimal ventilation.									
	3.2	Implement FIFO and stock rotation systems.									
	3.3	Monitor environmental conditions (temperature, humidity).									
	3.4	Apply pest prevention strategies.									
	3.5	Supervise cleaning and sanitation schedules.									
	3.6	Document storage conditions regularly.									
	3.7	Recommend improvements to storage infrastructure.									
LO4: Detect and	4.1	Identify common feed toxins (aflatoxins, ergot alkaloids).									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
manage feed toxins	4.2	Collect samples for toxin assays.		
	4.3	Conduct rapid toxin detection tests (ELISA, Lateral Flow Assays, Biosensors).		
	4.4	Interpret toxin levels against safe thresholds.		
	4.5	Segregate and dispose contaminated feed.		
	4.6	Recommend detoxification or mitigation strategies.		
	4.7	Explain the principles of confirmatory toxin assays (HPLC, Gas Chromatography, Thin Layer Chromatography, L-C/MS)		
LO5: Identify and evaluate Anti-Nutritional Factors (ANFs)	5.1	Identify ANFs in legumes, grains, oilseeds, and forages.		
	5.2	Explain ANFs detection assays.		
	5.3	Conduct qualitative assays (foam test, picrate paper, Ferric Chloride test, frothing test,etc.).		
	5.4	Perform quantitative assays (Wade reagent, Folin–Ciocalteu,etc).		
	5.5	Interpret assay results against nutritional standards.		
	5.6	Recommend processing methods to reduce ANFs.		
	5.7	Document ANF assay outcomes.		
LO6: Document and communicate feed quality assurance outcomes	6.1	Prepare structured technical reports.		
	6.2	Maintain digital and physical records.		
	6.3	Present findings to supervisors.		
	6.4	Recommend corrective actions.		
	6.5	Ensure confidentiality of records.		
	6.6	Archive reports systematically.		
	6.7	Review documentation for accuracy.		
LO7: Monitor compliance with national feed quality standards	7.1	Audit feed handling practices.		
	7.2	Verify adherence to labeling requirements.		
	7.3	Inspect storage and transport systems.		
	7.4	Compare practices with regulatory benchmarks.		
	7.5	Report non-compliance to management.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	7.6	Recommend corrective measures.	☐	☐
	7.7	Track compliance improvements.	☐	☐
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 004: FEED MILL AUTOMATION AND PROCESS CONTROL

Unit Reference Number: AGR/FPD/004/L5

NSQ Level: 5

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose

This unit equips the learner with the practical competencies required to coordinate, supervise, monitor and troubleshoot automated feed production systems and process control operations to ensure efficient production, consistent product quality, reduced downtime and compliance with operational procedures, feed safety standards and quality management systems.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace equipped with automated production systems.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 004: Feed mill Automation and Process Control

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Coordinate automated feed production systems.	1.1	Verify readiness of automated production systems before startup.									
	1.2	Coordinate startup sequences for automated production equipment.									
	1.3	Monitor automated system operations during production.									
	1.4	Verify system parameters against production specifications.									
	1.5	Coordinate automated shutdown procedures after production.									
	1.6	Resolve routine system operational issues.									
	1.7	Maintain automated system operation records.									
LO2: Supervise process control operations.	2.1	Verify process control set points before production.									
	2.2	Monitor process control parameters during production.									
	2.3	Adjust process control settings within approved ranges.									
	2.4	Verify automated batching accuracy.									
	2.5	Monitor automated weighing and mixing operations.									
	2.6	Detect process control deviations promptly.									
	2.7	Maintain process control records.									
LO3: Monitor automated production performance.	3.1	Monitor production output using automated systems.									
	3.2	Monitor ingredient consumption through automated tracking.									
	3.3	Monitor equipment performance using system diagnostics.									
	3.4	Identify production bottlenecks using system data.									
	3.5	Compare actual production against automated schedules.									
	3.6	Implement corrective actions based on system alerts.									
	3.7	Prepare automated production performance reports.									
LO4:	4.1	Verify online quality monitoring									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
Supervise automated quality control systems.		systems are operational.		
	4.2	Monitor automated sampling and analysis processes.		
	4.3	Verify compliance with quality specifications through system data.		
	4.4	Detect quality deviations using automated alerts.		
	4.5	Coordinate corrective actions for quality deviations.		
	4.6	Verify automated rejection of non-conforming batches.		
	4.7	Maintain automated quality control records.		
LO5: Coordinate automated inventory and traceability systems.	5.1	Verify automated raw material inventory updates.		
	5.2	Monitor automated finished product inventory tracking.		
	5.3	Verify automated batch traceability records.		
	5.4	Reconcile automated inventory records with physical stock.		
	5.5	Investigate inventory discrepancies using system data.		
	5.6	Authorize inventory adjustments in automated systems.		
	5.7	Maintain automated traceability documentation.		
LO6: Troubleshoot automated system issues.	6.1	Identify system alarms and error messages promptly.		
	6.2	Diagnose causes of system malfunctions.		
	6.3	Implement approved troubleshooting procedures.		
	6.4	Escalate unresolved technical issues to maintenance personnel.		
	6.5	Verify system restoration after troubleshooting.		
	6.6	Document troubleshooting actions and outcomes.		
	6.7	Recommend system improvements based on recurring issues.		
LO7:	7.1	Coordinate automated production		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.				
The learner will:		The learner can:										
Demonstrate supervisory competency in feedmill automation and process control.		operations effectively.										
	7.2	Supervise process control throughout production.										
	7.3	Monitor production performance using automated systems.										
	7.4	Maintain quality and traceability through automated controls.										
	7.5	Troubleshoot system issues effectively.										
	7.6	Prepare comprehensive automation performance reports.										
	7.7	Perform automation and process control activities in compliance with organizational policies, quality management systems, feed safety regulations, occupational health and safety requirements, and manufacturers' recommendations.										
	7.8	Coordinate automated production operations effectively.										
Learners Signature:						Date:						
Assessors Signature:						Date:						
IQA Signature (if sampled)						Date:						
EQA Signature (if sampled)						Date:						

UNIT 005: MAINTENANCE PLANNING AND ASSET MANAGEMENT

Unit Reference Number: AGR/FPD/005/L5

NSQ Level: 5

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose

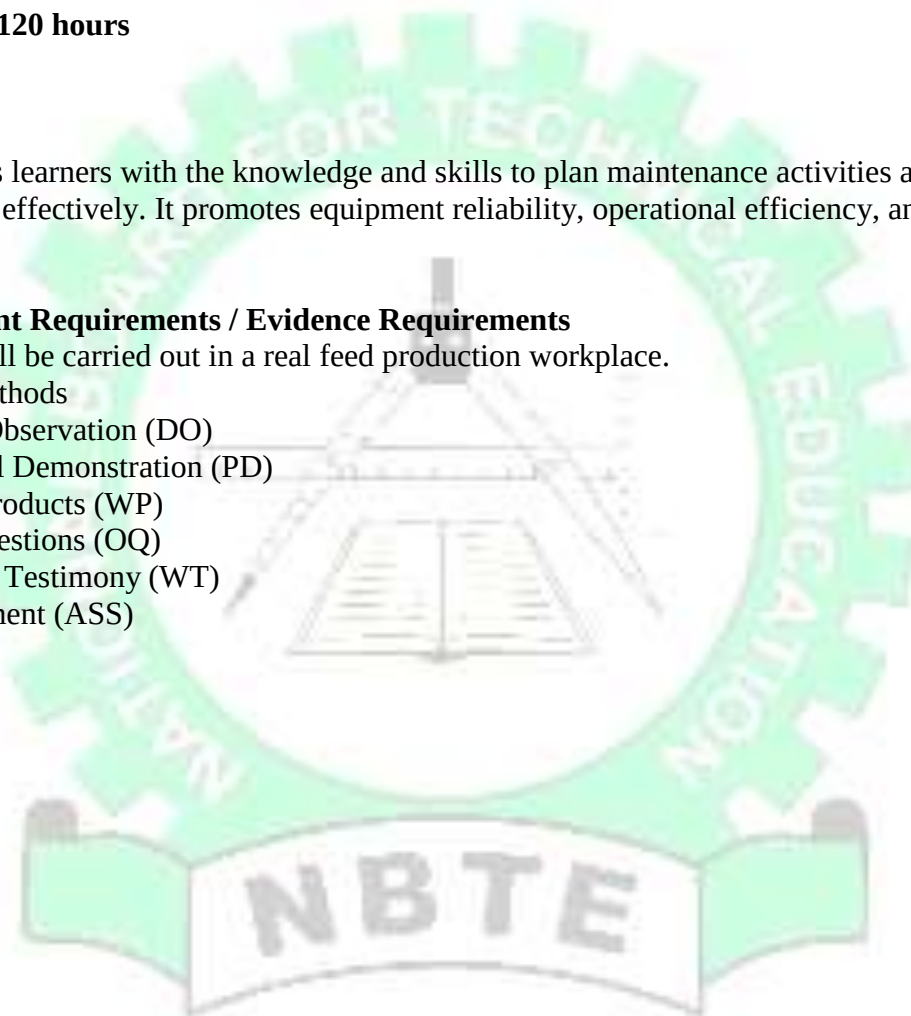
This unit equips learners with the knowledge and skills to plan maintenance activities and manage feed mill assets effectively. It promotes equipment reliability, operational efficiency, and prolonged asset lifespan.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

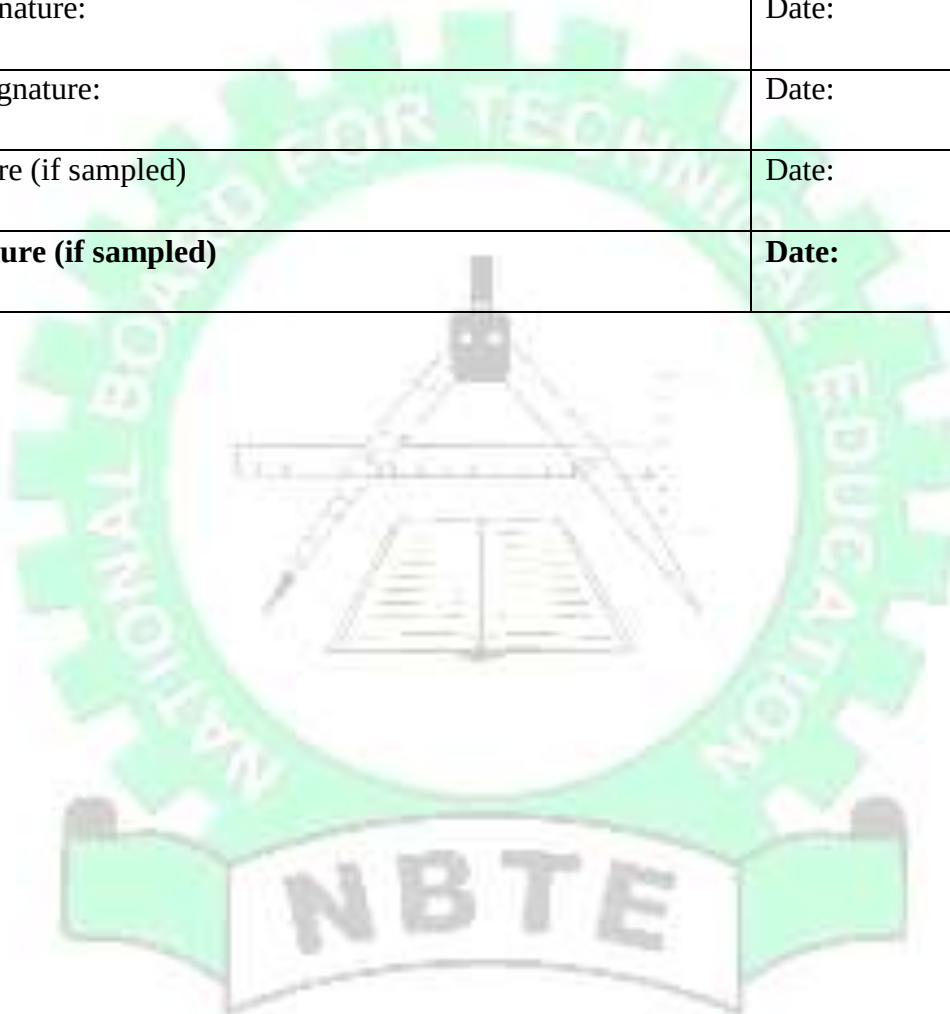
1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 005: Maintenance Planning and Asset Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: <i>Prepare operational requirements</i>	1.1	Identify operational requirements.		
	1.2	Inspect equipment and resources.		
	1.3	Verify specifications.		
	1.4	Prepare work area.		
	1.5	Calibrate equipment.		
	1.6	Confirm readiness.		
	1.7	Apply safety procedures.		
LO2: <i>Operate and manage processes</i>	2.1	Start operations correctly.		
	2.2	Monitor process parameters.		
	2.3	Adjust operating conditions.		
	2.4	Optimize performance.		
	2.5	Control process variations.		
	2.6	Verify outputs.		
	2.7	Record activities.		
LO3: <i>Monitor quality and performance</i>	3.1	Collect samples/data.		
	3.2	Evaluate quality.		
	3.3	Analyze performance.		
	3.4	Compare with standards.		
	3.5	Identify deviations.		
	3.6	Recommend improvements.		
	3.7	Document results.		
LO4: <i>Implement control measures</i>	4.1	Identify risks.		
	4.2	Apply control measures.		
	4.3	Monitor effectiveness.		
	4.4	Correct deviations.		
	4.5	Verify compliance.		
	4.6	Communicate actions.		
	4.7	Maintain records.		
LO5: <i>Maintain documentation</i>	5.1	Record operational data.		
	5.2	Update logs.		
	5.3	Prepare reports.		
	5.4	Maintain files.		
	5.5	Retrieve records.		
	5.6	Archive documents.		
	5.7	Protect information.		
LO6: <i>Evaluate system</i>	6.1	Assess efficiency.		
	6.2	Review key performance indicators (KPIs)		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
<i>effectiveness</i>	6.3	Analyze trends.	☐	☐
	6.4	Recommend improvements.	☐	☐
	6.5	Implement corrective actions.	☐	☐
	6.6	Verify outcomes.	☐	☐
	6.7	Report findings.	☐	☐
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 006: LIVESTOCK NUTRITION AND FEED EVALUATION

Unit Reference Number: AGR/FPD/006/L5

NSQ Level: 5

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose

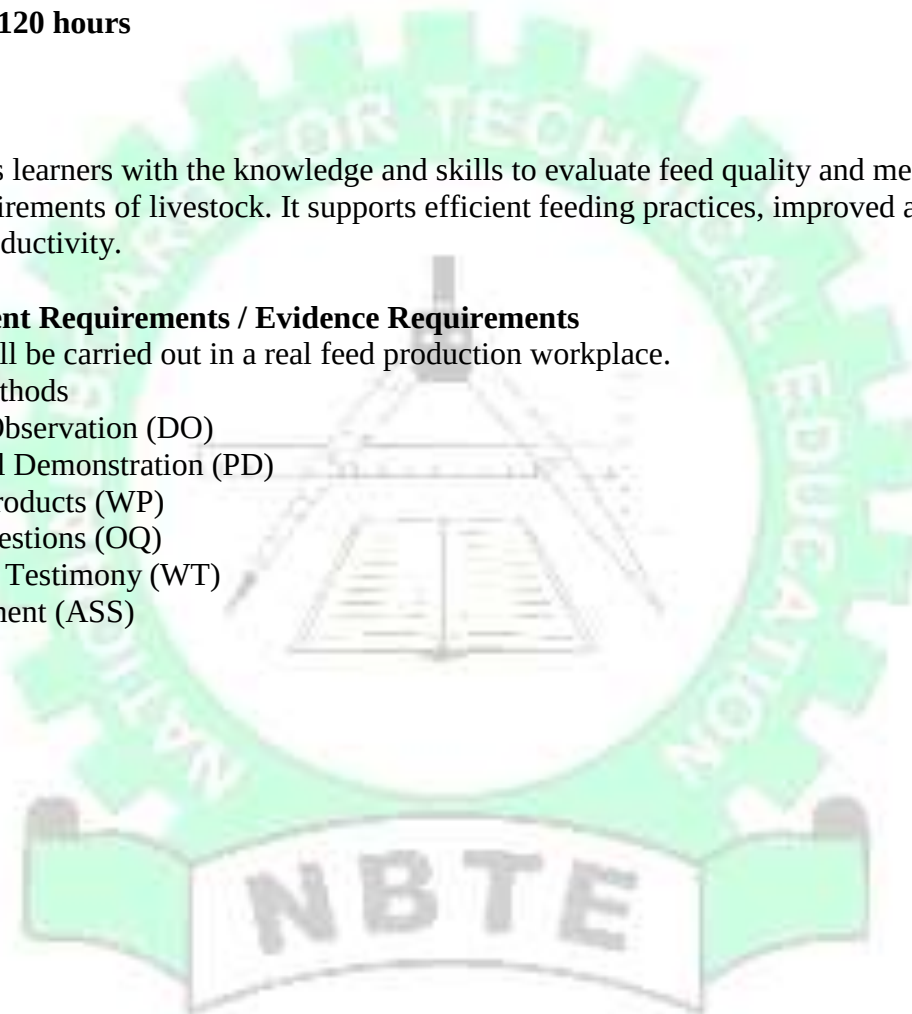
This unit equips learners with the knowledge and skills to evaluate feed quality and meet the nutritional requirements of livestock. It supports efficient feeding practices, improved animal health, and optimal productivity.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 006: Livestock Nutrition and Feed Evaluation

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: <i>Assess livestock nutrient requirements by species and stage</i>	1.1	Identify nutrient needs by age and production stage.									
	1.2	Collect feed intake data.									
	1.3	Compare nutritional requirements with feed composition.									
	1.4	Identify deficiencies or excesses.									
	1.5	Recommend supplementation strategies.									
	1.6	Document nutrient requirement assessments.									
	1.7	Train staff on nutrient evaluation.									
LO2: <i>Conduct comprehensive feed composition analysis</i>	2.1	Collect representative feed samples.									
	2.2	Perform proximate analysis for ingredients and formulated feed.									
	2.3	Conduct mineral and vitamin assays.									
	2.4	Compare results with nutrient standards.									
	2.5	Identify imbalances.									
	2.6	Document analysis outcomes.									
	2.7	Recommend corrective actions.									
LO3: <i>Design and implement feeding trials</i>	3.1	Select appropriate trial animals.									
	3.2	Prepare trial rations.									
	3.3	Monitor feed intake and performance.									
	3.4	Record trial data systematically.									
	3.5	Compare trial outcomes with control groups.									
	3.6	Interpret trial results.									
	3.7	Report findings to supervisors.									
LO4: <i>Formulate balanced rations for livestock</i>	4.1	Identify feed ingredients.									
	4.2	Calculate nutrient contributions.									
	4.3	Combine ingredients to meet requirements.									
	4.4	Test ration palatability.									
	4.5	Adjust rations based on performance.									
	4.6	Document ration formulations.									
	4.7	Train staff on ration preparation.									
LO5: <i>Evaluate alternative</i>	5.1	Identify local feed alternatives.									
	5.2	Conduct nutritional assays.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
feed resources	5.3	Compare with conventional feeds.		
	5.4	Assess cost-effectiveness.		
	5.5	Recommend suitable alternatives.		
	5.6	Document evaluation outcomes.		
	5.7	Present findings to management.		
LO6: Monitor livestock feed intake and performance	6.1	Record daily feed intake.		
	6.2	Monitor weight gain and productivity.		
	6.3	Observe animal health indicators.		
	6.4	Compare performance with targets.		
	6.5	Identify deviations.		
	6.6	Recommend corrective actions.		
	6.7	Document monitoring outcomes.		
LO7: Document and communicate nutrition evaluation results	7.1	Prepare structured nutrition reports.		
	7.2	Maintain records of trials and rations.		
	7.3	Present findings to supervisors.		
	7.4	Recommend improvements.		
	7.5	Ensure confidentiality of records.		
	7.6	Archive reports systematically.		
	7.7	Review documentation for accuracy.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 007: ENVIRONMENTAL AND WASTE MANAGEMENT II

Unit Reference Number: AGR/FPD/007/L5

NSQ Level: 5

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose

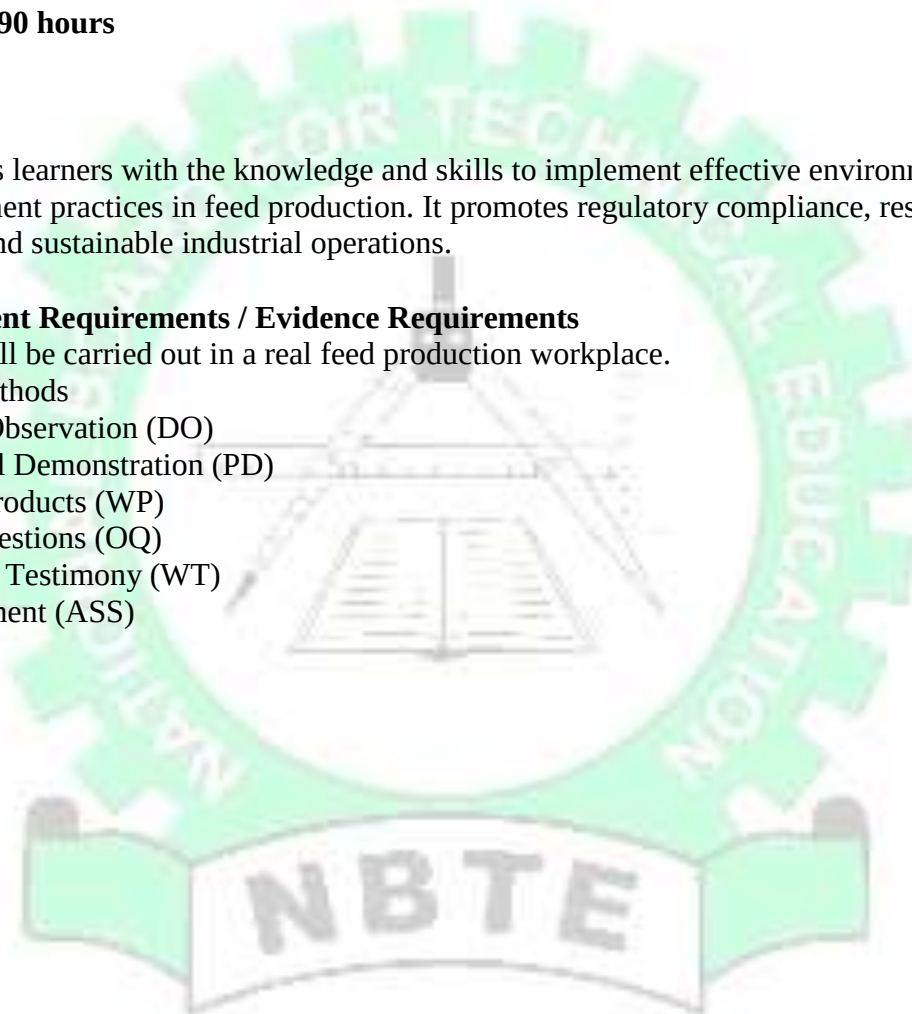
This unit equips learners with the knowledge and skills to implement effective environmental and waste management practices in feed production. It promotes regulatory compliance, resource conservation, and sustainable industrial operations.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 007: Environmental and Waste Management II

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Plan environmental management activities	1.1	Identify environmental aspects.		
	1.2	Assess environmental risks.		
	1.3	Review legal requirements.		
	1.4	Prepare management plans.		
	1.5	Allocate resources.		
	1.6	Communicate responsibilities.		
	1.7	Maintain planning records.		
LO2: Manage feed mill waste	2.1	Identify waste streams.		
	2.2	Segregate waste.		
	2.3	Handle hazardous waste safely.		
	2.4	Implement recycling practices.		
	2.5	Monitor waste disposal.		
	2.6	Maintain disposal records.		
	2.7	Comply with regulations.		
LO3: Control environmental pollution	3.1	Monitor emissions.		
	3.2	Control dust generation.		
	3.3	Manage waste-water.		
	3.4	Reduce noise pollution.		
	3.5	Prevent spillages.		
	3.6	Implement corrective actions.		
	3.7	Document monitoring results.		
LO4: Conserve resources	4.1	Monitor water usage.		
	4.2	Reduce energy consumption.		
	4.3	Optimize raw material utilization.		
	4.4	Promote resource recovery.		
	4.5	Implement conservation measures.		
	4.6	Evaluate resource efficiency.		
	4.7	Report performance.		
LO5: Monitor environmental compliance	5.1	Conduct inspections.		
	5.2	Verify permit requirements.		
	5.3	Review compliance records.		
	5.4	Identify non-conformities.		
	5.5	Recommend improvements.		
	5.6	Implement corrective actions.		
	5.7	Document compliance status.		
LO6: Evaluate environmental	6.1	Collect performance data.		
	6.2	Analyze trends.		
	6.3	Assess environmental objectives.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
performance	6.4	Review improvement plans.		
	6.5	Measure effectiveness.		
	6.6	Prepare environmental reports.		
	6.7	Archive records.		
LO7: Apply occupational health, safety and environmental practices	7.1	Wear PPE correctly.		
	7.2	Maintain work-place hygiene.		
	7.3	Handle wastes safely.		
	7.4	Prevent environmental contamination.		
	7.5	Respond to emergencies.		
	7.6	Promote environmental awareness.		
	7.7	Comply with regulations.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 008: OCCUPATIONAL HEALTH, SAFETY AND RISK MANAGEMENT

Unit Reference Number: AGR/FPD/008/L5

NSQ Level: 5

Credit Value: 6

Guided Learning Hours: 60

Practice time: 180 hours

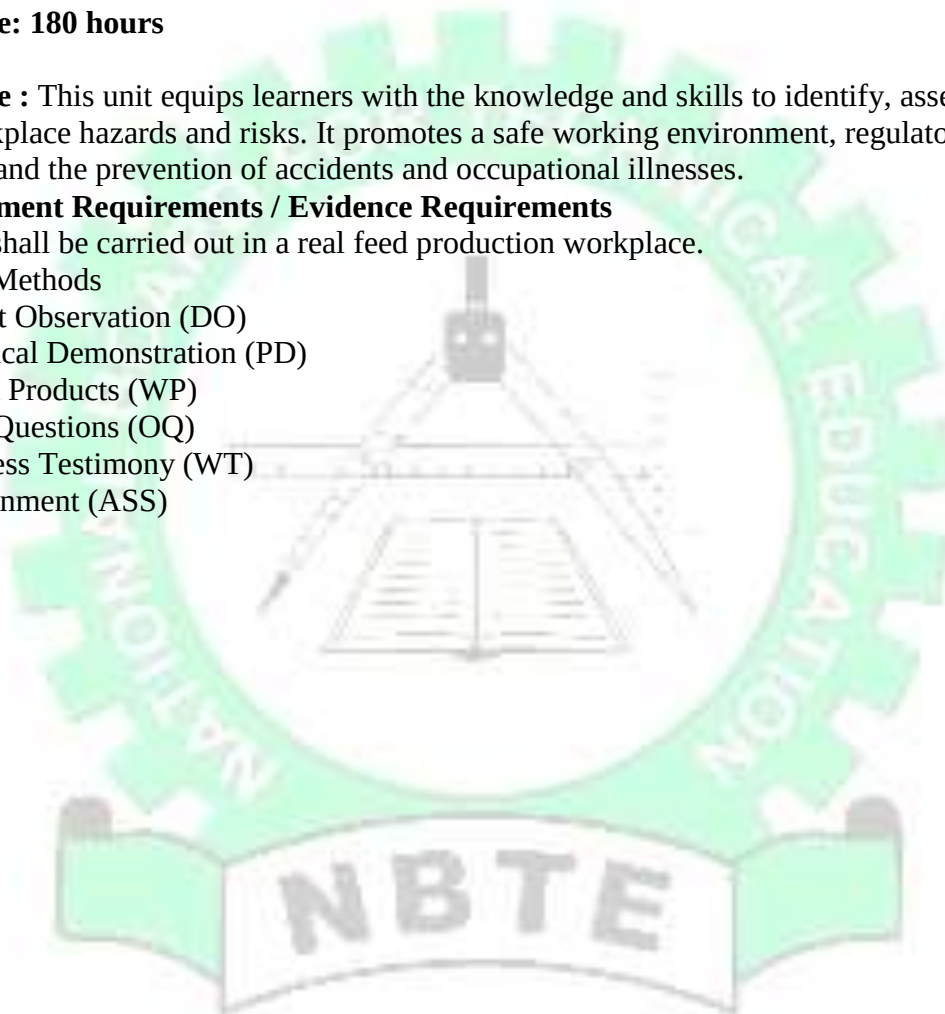
Unit Purpose : This unit equips learners with the knowledge and skills to identify, assess, and manage workplace hazards and risks. It promotes a safe working environment, regulatory compliance, and the prevention of accidents and occupational illnesses.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 008: Occupational Health, Safety and Risk Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Identify and assess workplace hazards	1.1	Recognize chemical, biological, and physical hazards.									
	1.2	Conduct hazard assessments.									
	1.3	Record hazard details.									
	1.4	Report hazards promptly.									
	1.5	Recommend preventive measures.									
	1.6	Train staff on hazard recognition.									
	1.7	Review hazard records regularly.									
LO2: Apply occupational safety protocols	2.1	Wear protective clothing.									
	2.2	Wash hands before handling feed.									
	2.3	Clean tools regularly.									
	2.4	Disinfect surfaces.									
	2.5	Dispose of waste properly.									
	2.6	Avoid cross-contamination.									
	2.7	Follow workplace guidelines.									
LO3: Implement risk management strategies	3.1	Identify potential risks.									
	3.2	Assess risk severity.									
	3.3	Record risk details.									
	3.4	Report risks.									
	3.5	Recommend mitigation measures.									
	3.6	Monitor risk management effectiveness.									
	3.7	Review risk management outcomes.									
LO4: Conduct safety training programs	4.1	Prepare training materials.									
	4.2	Conduct training sessions.									
	4.3	Demonstrate safety practices.									
	4.4	Record attendance.									
	4.5	Assess trainee understanding.									
	4.6	Report training outcomes.									
	4.7	Suggest improvements.									
LO5: Monitor compliance with occupational safety standards	5.1	Inspect adherence to protocols.									
	5.2	Verify protective gear use.									
	5.3	Audit waste disposal practices.									
	5.4	Record compliance details.									
	5.5	Report non-compliance.									
	5.6	Recommend corrective actions.									
	5.7	Track improvements.									
LO6: Respond	6.1	Identify emergency situations.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
<i>effectively to emergencies</i>	6.2	Alert supervisors.		
	6.3	Apply first aid.		
	6.4	Evacuate affected areas.		
	6.5	Record emergency details.		
	6.6	Report incidents.		
	6.7	Follow up on recovery.		
<i>LO7: Document occupational safety and risk management activities</i>	7.1	Attach training reports.		
	7.2	Note risk management actions.		
	7.3	Submit reports.		
	7.4	Maintain confidentiality.		
	7.5	Archive documents systematically.		
	7.6	Review documentation for accuracy.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 009: LEADERSHIP AND HUMAN RESOURCE MANAGEMENT

Unit Reference Number: AGR/FPD/009/L5

NSQ Level: 5

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

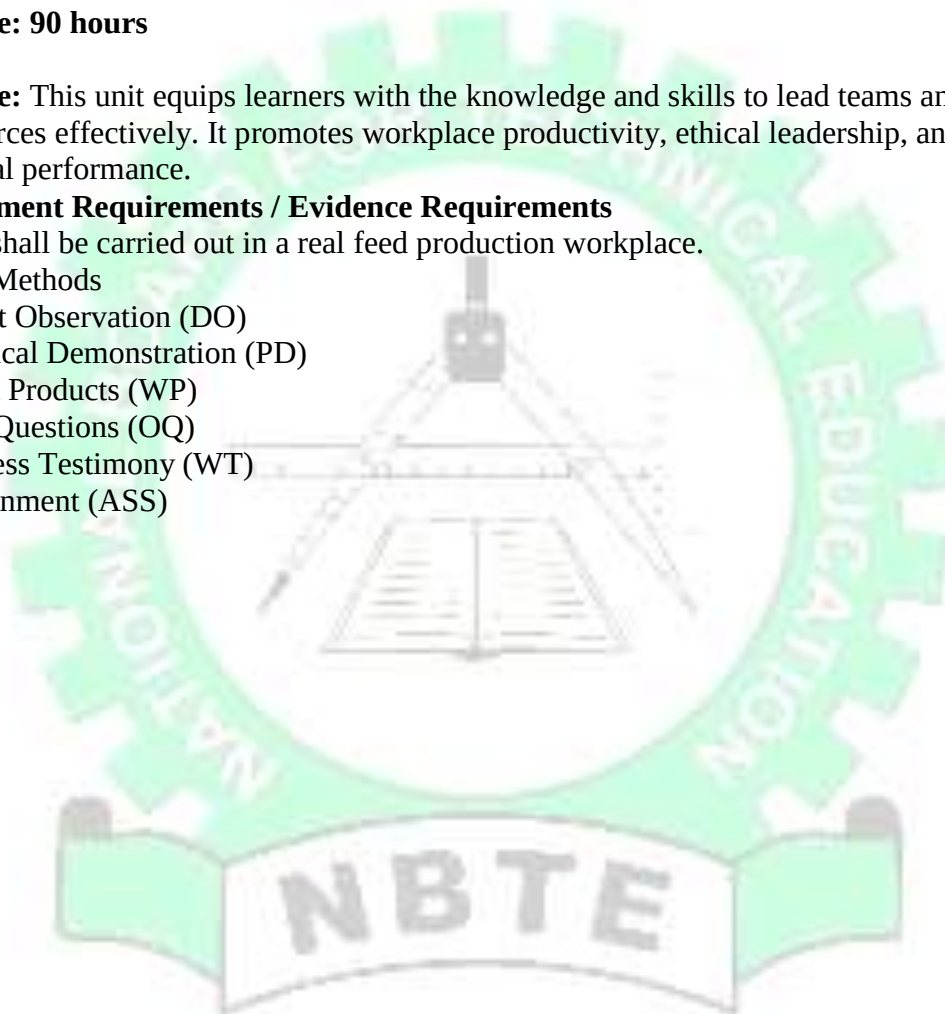
Unit Purpose: This unit equips learners with the knowledge and skills to lead teams and manage human resources effectively. It promotes workplace productivity, ethical leadership, and organizational performance.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

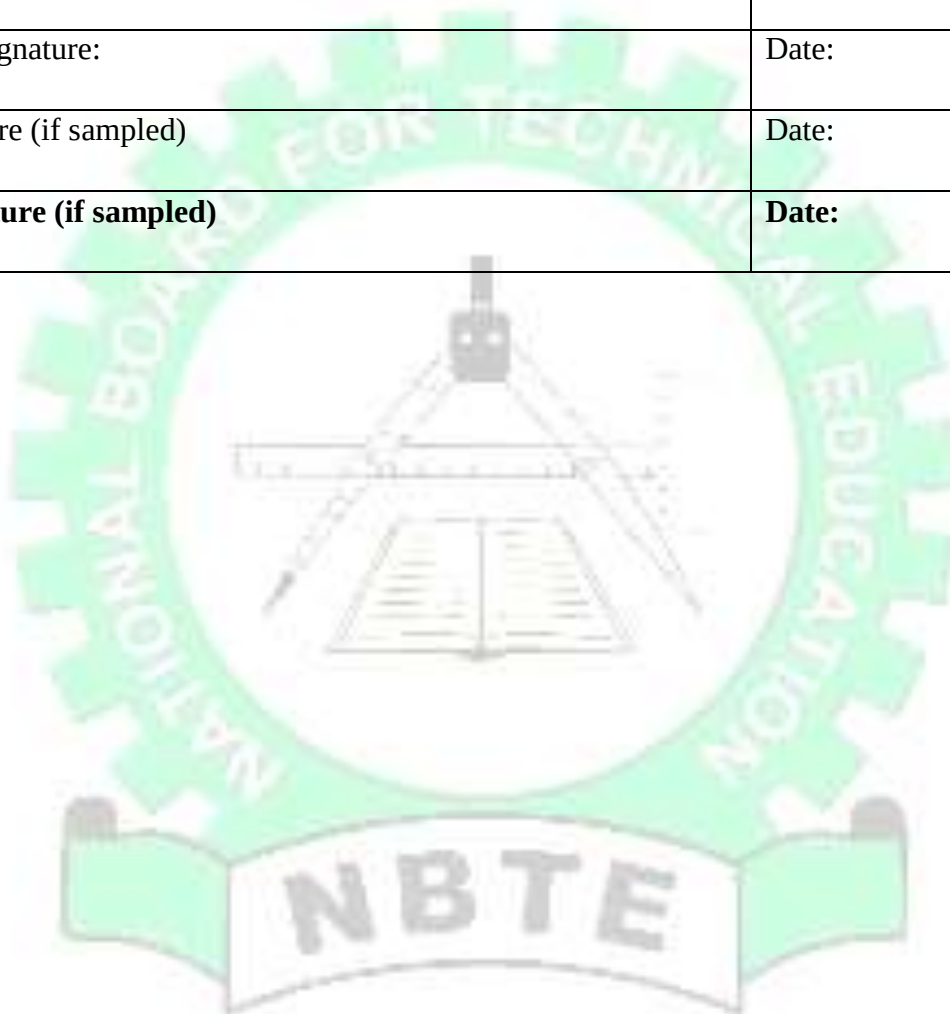
1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 009: Leadership and Human Resource Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Plan workforce requirements	1.1	Assess staffing needs.		
	1.2	Prepare workforce plans.		
	1.3	Define job roles.		
	1.4	Assign responsibilities.		
	1.5	Schedule work/activities.		
	1.6	Communicate expectations.		
	1.7	Maintain planning records.		
LO2: Supervise personnel	2.1	Assign duties.		
	2.2	Monitor performance.		
	2.3	Provide guidance.		
	2.4	Resolve conflicts.		
	2.5	Promote teamwork.		
	2.6	Evaluate staff performance.		
	2.7	Document supervision activities.		
LO3: Develop employee competence	3.1	Identify training needs.		
	3.2	Prepare training plans.		
	3.3	Conduct coaching.		
	3.4	Evaluate competence.		
	3.5	Support continuous learning.		
	3.6	Maintain training records.		
	3.7	Review development outcomes.		
LO4: Manage workplace communication	4.1	Conduct meetings.		
	4.2	Provide feedback.		
	4.3	Prepare reports.		
	4.4	Facilitate information sharing.		
	4.5	Resolve communication barriers.		
	4.6	Maintain communication records.		
	4.7	Promote collaboration.		
LO5: Manage employee performance	5.1	Set performance targets.		
	5.2	Conduct appraisals.		
	5.3	Recognize achievements.		
	5.4	Address poor performance.		
	5.5	Implement improvement plans.		
	5.6	Monitor progress.		
	5.7	Maintain appraisal records.		
LO6: Promote organizational	6.1	Support organizational goals.		
	6.2	Improve productivity.		
	6.3	Encourage innovation.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
<i>effectiveness</i>	6.4	Manage changes.	☐	☐
	6.5	Evaluate outcomes.	☐	☐
	6.6	Recommend improvements.	☐	☐
	6.7	Prepare management reports.	☐	☐
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 010: ENTREPRENEURSHIP AND FEED BUSINESS MANAGEMENT

Unit Reference Number: AGR/FPD/010/L5

NSQ Level: 5

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

Unit Purpose:

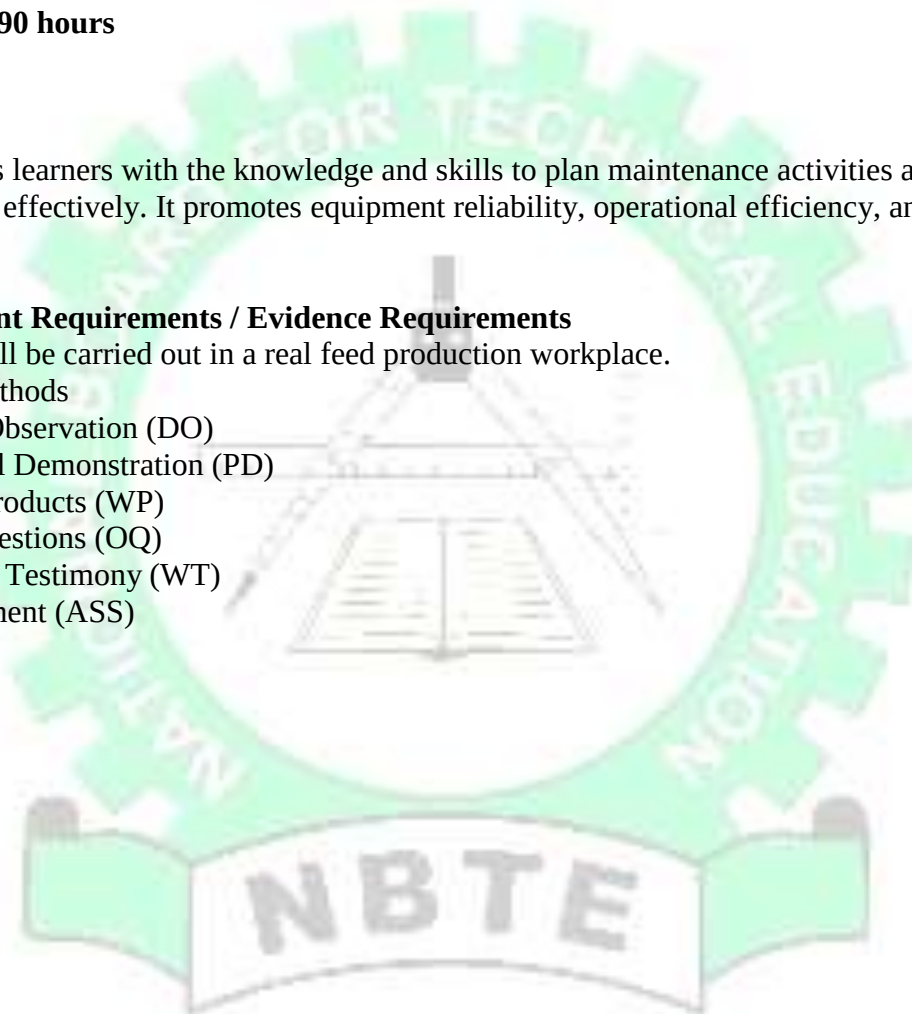
This unit equips learners with the knowledge and skills to plan maintenance activities and manage feed mill assets effectively. It promotes equipment reliability, operational efficiency, and prolonged asset lifespan.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

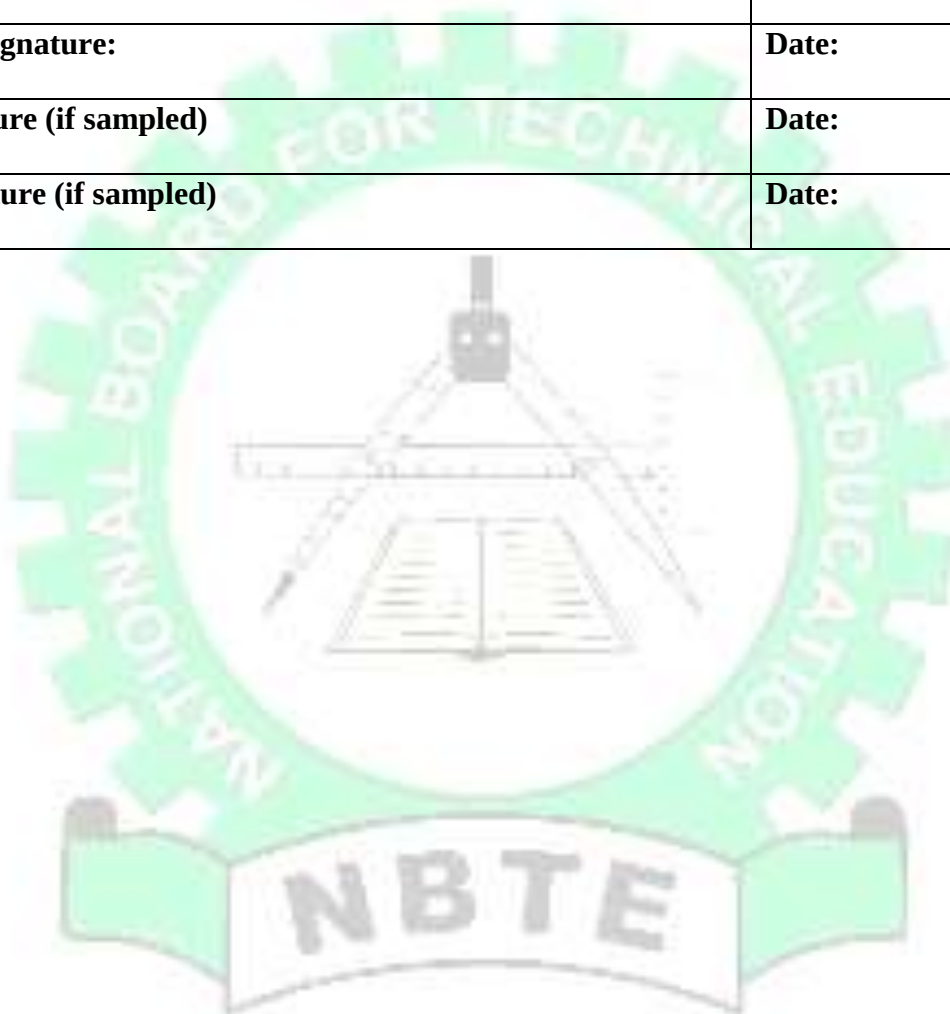
1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)



Unit 010: Entrepreneurship and Feed Business Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Develop feed business opportunities	1.1	Identify market opportunities.		
	1.2	Assess customer needs.		
	1.3	Analyze competitors.		
	1.4	Select business opportunities.		
	1.5	Evaluate feasibility.		
	1.6	Prepare opportunity reports.		
	1.7	Comply with regulations.		
LO2: Prepare business plans	2.1	Define business goals.		
	2.2	Estimate startup costs.		
	2.3	Develop marketing strategies.		
	2.4	Prepare operational plans.		
	2.5	Develop financial projections.		
	2.6	Assess business risks.		
	2.7	Finalize business plans.		
LO3: Manage feed business operations	3.1	Organize daily operations.		
	3.2	Manage procurement.		
	3.3	Supervise production.		
	3.4	Control inventory.		
	3.5	Monitor customer service.		
	3.6	Review business performance.		
	3.7	Maintain operational records.		
LO4: Manage finance and marketing	4.1	Prepare budgets.		
	4.2	Monitor cash flow.		
	4.3	Set product prices.		
	4.4	Promote feed products.		
	4.5	Manage customer relationships.		
	4.6	Evaluate marketing performance.		
	4.7	Maintain financial records.		
LO5: Ensure business compliance	5.1	Obtain licenses.		
	5.2	Maintain statutory records.		
	5.3	Comply with tax requirements.		
	5.4	Meet quality standards.		
	5.5	Implement ethical practices.		
	5.6	Review legal obligations.		
	5.7	Document compliance.		
LO6: Evaluate business	6.1	Measure profitability.		
	6.2	Analyze sales trends.		
	6.3	Assess customer satisfaction.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
<i>performance</i>	6.4	Identify improvement areas.		
	6.5	Implement business improvements.		
	6.6	Prepare performance reports.		
	6.7	Archive business records.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	



UNIT 011: RESEARCH, INNOVATION AND CONTINUOUS IMPROVEMENT

Unit Reference Number: AGR/FPD/011/L5

NSQ Level: 5

Credit Value: 4

Guided Learning Hours: 40

Practice time: 120 hours

Unit Purpose:

This unit equips learners with the knowledge and skills to conduct research, foster innovation, and drive continuous improvement. It promotes evidence-based decision-making, problem-solving, and enhanced organizational performance.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

Unit 011: Research, Innovation and Continuous Improvement

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Identify research gaps in feed and nutrition	1.1	Recognize gaps in current practices.									
	1.2	Collect data on issues.									
	1.3	Record research needs.									
	1.4	Report findings.									
	1.5	Suggest research areas.									
	1.6	Prioritize needs.									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	1.7	Follow up on approvals.		
LO2: Conduct applied research activities	2.1	Collect samples systematically.		
	2.2	Perform relevant tests.		
	2.3	Record results accurately.		
	2.4	Compare with standards.		
	2.5	Interpret findings.		
	2.6	Report outcomes.		
	2.7	Recommend improvements.		
LO3: Apply innovative feed practices	3.1	Identify new feed methods.		
	3.2	Test innovations.		
	3.3	Record outcomes.		
	3.4	Compare with conventional methods.		
	3.5	Report findings.		
	3.6	Recommend adoption.		
	3.7	Follow up on implementation.		
LO4: Evaluate continuous improvement opportunities	4.1	Identify areas for improvement.		
	4.2	Collect performance data.		
	4.3	Record improvement needs.		
	4.4	Report findings.		
	4.5	Suggest actions.		
	4.6	Monitor effectiveness.		
	4.7	Review outcomes.		
LO5: Share research and innovation findings	5.1	Prepare structured technical reports summarizing research outcomes.		
	5.2	Present findings clearly to peers and supervisors.		
	5.3	Use visual aids (charts, tables) to enhance communication.		
	5.4	Record feedback from stakeholders.		
	5.5	Incorporate feedback into revised recommendations.		
	5.6	Disseminate findings through appropriate channels (meetings, Social media, bulletins).		
	5.7	Maintain records of shared outputs for future reference.		
LO6: Monitor adoption of innovations	6.1	Track implementation of new practices in feed and nutrition.		
	6.2	Collect performance data post-adoption.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.				
The learner will:		The learner can:										
	6.3	Compare outcomes with baseline practices.										
	6.4	Record adoption rates and compliance levels.										
	6.5	Identify barriers to adoption.										
	6.6	Recommend strategies to improve uptake.										
	6.7	Report adoption progress to management.										
<i>LO7: Promote a culture of continuous improvement</i>	7.1	Enter hazard details in records.										
	7.2	Attach training reports.										
	7.3	Note risk management actions.										
	7.4	Submit reports.										
	7.5	Maintain confidentiality.										
	7.6	Archive documents systematically.										
	7.7	Review documentation for accuracy.										
Learners Signature:			Date:									
Assessors Signature:			Date:									
IQA Signature (if sampled)			Date:									
EQA Signature (if sampled)			Date:									

UNIT 012: AQUACULTURE FEED PRODUCTION (OPTIONAL)

Unit Reference Number: AGR/FPD/012/L5

NSQ Level: 5

Credit Value: 6

Guided Learning Hours: 60

Practice time: 180 hours

Unit Purpose: This unit equips learners with the knowledge and skills to produce high-quality aquaculture feeds that meet the nutritional requirements of aquatic species. It promotes efficient feed production, sustainable aquaculture practices, and improved fish performance.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

Unit 012: Aquaculture Feed Production

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Prepare raw materials for aquaculture feed production.	1.1	Identify feed ingredients.		
	1.2	Assess ingredient quality.		
	1.3	Determine ingredient specifications.		
	1.4	Weigh ingredients accurately.		
	1.5	Prepare ingredients for processing.		
	1.6	Prevent contamination during handling.		
	1.7	Apply workplace safety procedures.		
LO2: Formulate aquaculture feeds for different aquatic species.	2.1	Determine nutrient requirements.		
	2.2	Select suitable ingredients.		
	2.3	Calculate feed formulations.		
	2.4	Balance feed nutrients.		
	2.5	Adjust formulations for different growth stages.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
	2.6	Verify formulation accuracy.		
	2.7	Document feed formulations.		
LO3: Produce aquaculture feed.	3.1	Mix ingredients uniformly.		
	3.2	Operate feed production equipment.		
	3.3	Produce pellets of specified sizes.		
	3.4	Dry feed appropriately.		
	3.5	Cool finished feed.		
	3.6	Inspect feed quality.		
	3.7	Clean equipment after production.		
LO4: Evaluate aquaculture feed quality.	4.1	Collect feed samples.		
	4.2	Assess physical quality.		
	4.3	Evaluate water stability.		
	4.4	Conduct laboratory tests.		
	4.5	Compare results with standards.		
	4.6	Identify quality defects.		
	4.7	Recommend corrective actions.		
LO5: Package and store aquaculture feed.	5.1	Select packaging materials.		
	5.2	Package feed correctly.		
	5.3	Label feed packages.		
	5.4	Store feed under suitable conditions.		
	5.5	Apply stock rotation procedures.		
	5.6	Monitor storage conditions.		
	5.7	Maintain storage records.		
LO6: Maintain production records.	6.1	Record ingredient usage.		
	6.2	Record production output.		
	6.3	Maintain quality control records.		
	6.4	Record equipment maintenance.		
	6.5	Prepare production reports.		
	6.6	Maintain inventory records.		
	6.7	File production documents.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 013: PET FEED PRODUCTION (OPTIONAL)

Unit Reference Number: AGR/FPD/013/L5

NSQ Level: 5

Credit Value: 6

Guided Learning Hours: 60

Practice time: 180 hours

Unit Purpose: This unit equips learners with the knowledge and skills to produce safe, balanced, and high-quality pet feeds. It promotes compliance with quality standards, pet health, and efficient feed manufacturing practices.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

Unit 013: Pet Feed Production (Optional)

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO1: Prepare raw materials for pet feed production.	1.1	Identify ingredients.		
	1.2	Assess ingredient quality.		
	1.3	Determine ingredient specifications.		
	1.4	Weigh ingredients accurately.		
	1.5	Prepare ingredients for processing.		
	1.6	Prevent contamination.		
	1.7	Apply safety procedures.		
LO2: Formulate pet feeds.	2.1	Determine nutritional requirements.		
	2.2	Select suitable ingredients.		
	2.3	Calculate feed formulations.		
	2.4	Balance nutrients.		
	2.5	Adjust formulations for species and		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
		life stage.		
	2.6	Verify formulation accuracy.		
	2.7	Document formulations.		
LO3: Produce pet feed products.	3.1	Mix ingredients uniformly.		
	3.2	Operate processing equipment.		
	3.3	Produce feed to specification.		
	3.4	Cook feed appropriately.		
	3.5	Dry and cool finished products.		
	3.6	Inspect product quality.		
	3.7	Clean equipment after use.		
LO4: Evaluate pet feed quality.	4.1	Collect representative samples.		
	4.2	Assess physical quality.		
	4.3	Conduct laboratory analysis.		
	4.4	Compare results with standards.		
	4.5	Identify product defects.		
	4.6	Implement corrective actions.		
	4.7	Document quality results.		
LO5: Package and store pet feed.	5.1	Select appropriate packaging materials.		
	5.2	Package products correctly.		
	5.3	Label products accurately.		
	5.4	Store under suitable conditions.		
	5.5	Apply inventory control procedures.		
	5.6	Monitor storage conditions.		
	5.7	Maintain storage records.		
LO6: Maintain production documentation.	6.1	Record ingredient usage.		
	6.2	Record production output.		
	6.3	Maintain quality records.		
	6.4	Document equipment maintenance.		
	6.5	Prepare production reports.		
	6.6	Update inventory records.		
	6.7	File production documents.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

LEARNING OUTCOME (LO)		PERF ORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		



UNIT 014: FEED REGULATORY COMPLIANCE AND AUDITING (OPTIONAL)**Unit Reference Number: AGR/FPD/014/L5****NSQ Level: 5****Credit Value: 3****Guided Learning Hours: 30****Practice time: 90 hours**

Unit Purpose: This unit is designed to equip learners with the knowledge and skills to ensure compliance with feed regulations and conduct effective audits. It promotes adherence to industry standards, product safety, and continuous quality improvement.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a real feed production workplace.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Work Products (WP)
4. Oral Questions (OQ)
5. Witness Testimony (WT)
6. Assignment (ASS)

UNIT 14: FEED REGULATORY COMPLIANCE AND AUDITING

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: Interpret feed regulations and standards.	1.1	Identify applicable feed regulations.									
	1.2	Interpret regulatory requirements.									
	1.3	Explain quality standards.									
	1.4	Identify licensing requirements.									
	1.5	Interpret labeling regulations.									
	1.6	Identify documentation requirements.									
	1.7	Apply regulatory requirements during operations.									
LO2: Conduct feed compliance inspections.	2.1	Prepare inspection checklists.									
	2.2	Inspect feed production facilities.									
	2.3	Verify compliance with standards.									
	2.4	Assess production records.									
	2.5	Identify non-conformities.									
	2.6	Record inspection findings.									
	2.7	Recommend corrective actions.									
LO3: Perform feed quality audits.	3.1	Develop an audit plan.									
	3.2	Review quality management									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
		documents.		
	3.3	Conduct process audits.		
	3.4	Verify implementation of procedures.		
	3.5	Evaluate audit evidence.		
	3.6	Document audit findings.		
	3.7	Prepare audit reports.		
LO4: Manage feed traceability and documentation.	4.1	Verify batch identification.		
	4.2	Maintain traceability records.		
	4.3	Review production records.		
	4.4	Verify distribution records.		
	4.5	Secure compliance documents.		
	4.6	Retrieve records when required.		
	4.7	Maintain document control.		
LO5: Manage non-conformities and corrective actions.	5.1	Identify non-compliance issues.		
	5.2	Investigate root causes.		
	5.3	Develop corrective action plans.		
	5.4	Implement corrective actions.		
	5.5	Monitor effectiveness.		
	5.6	Document corrective actions.		
	5.7	Verify compliance restoration.		
LO6: Prepare regulatory reports.	6.1	Compile inspection data.		
	6.2	Prepare compliance reports.		
	6.3	Document audit outcomes.		
	6.4	Submit reports within required timelines.		
	6.5	Maintain reporting records.		
	6.6	Present findings to relevant stakeholders.		
	6.7	Archive reports appropriately.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

UNIT 015: STRATEGIC DIGITAL PRODUCTION SYSTEMS AND INNOVATION MANAGEMENT (OPTIONAL)

Unit Reference Number: AGR/FPD/015/L5

NSQ Level: 5

Credit Value: 3

Guided Learning Hours: 30

Practice time: 90 hours

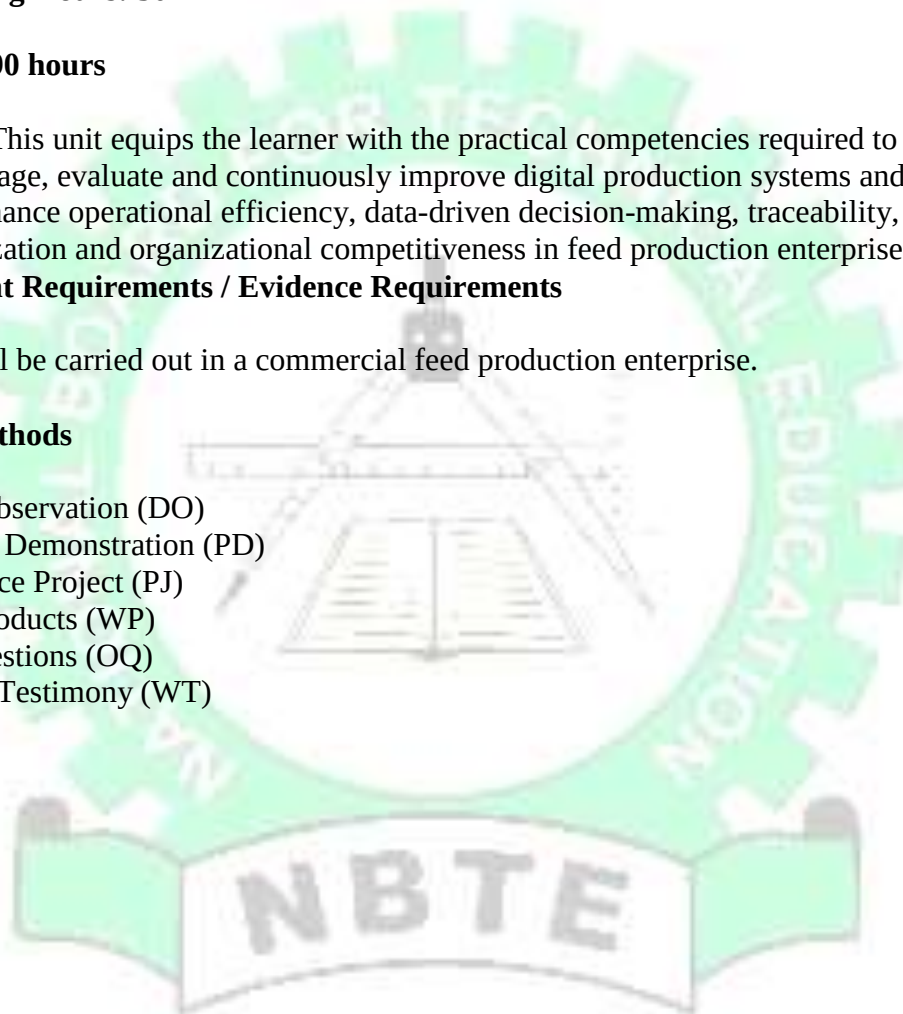
Unit Purpose: This unit equips the learner with the practical competencies required to develop, implement, manage, evaluate and continuously improve digital production systems and innovation initiatives to enhance operational efficiency, data-driven decision-making, traceability, automation, resource optimization and organizational competitiveness in feed production enterprises.

Unit Assessment Requirements / Evidence Requirements

Assessment shall be carried out in a commercial feed production enterprise.

Assessment Methods

1. Direct Observation (DO)
2. Practical Demonstration (PD)
3. Workplace Project (PJ)
4. Work Products (WP)
5. Oral Questions (OQ)
6. Witness Testimony (WT)



Unit 015: Strategic Digital Production Systems and Innovation Management (Optional)

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO1: <i>Develop digital production management strategies.</i>	1.1	Assess organizational digital production requirements.									
	1.2	Develop digital transformation plans for feed production operations.									
	1.3	Establish digital production performance objectives and KPIs.									
	1.4	Allocate responsibilities for digital system implementation.									
	1.5	Coordinate deployment of digital production technologies.									
	1.6	Review digital transformation plans periodically.									
	1.7	Maintain digital production strategy documentation.									
LO2: <i>Manage digital production information systems.</i>	2.1	Coordinate operation of digital production management systems.									
	2.2	Verify accuracy of electronically captured production data.									
	2.3	Monitor integration of production, inventory and quality databases.									
	2.4	Coordinate digital batch traceability systems.									
	2.5	Protect production data from unauthorized access.									
	2.6	Evaluate digital system reliability and performance									
	2.7	Maintain digital information management records.									
LO3:	3.1	Analyze production data using digital									

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
Optimize digital production processes.		management tools.		
	3.2	Monitor operational performance through digital dashboards.		
	3.3	Identify opportunities for process automation.		
	3.4	Coordinate implementation of digital process improvements.		
	3.5	Evaluate effectiveness of digital optimization initiatives.		
	3.6	Recommend adoption of emerging digital technologies.		
	3.7	Maintain digital process improvement records.		
LO4: Manage innovation and technology adoption.	4.1	Identify innovative technologies relevant to feed production.		
	4.2	Evaluate feasibility of new technologies.		
	4.3	Develop technology implementation plans.		
	4.4	Coordinate pilot testing of innovative technologies.		
	4.5	Monitor implementation of approved innovations.		
	4.6	Evaluate organizational benefits of adopted technologies.		
	4.7	Maintain innovation management records.		
Learners Signature:			Date:	
Assessors Signature:			Date:	
IQA Signature (if sampled)			Date:	
EQA Signature (if sampled)			Date:	

LIST OF EQUIPMENT

S/N	Tools/Equipment/Items/Resources	Quantity (30 Learners)
1.	Grain cleaner/sieve	
2.	Air compressor	
3.	Automatic bagging machine	
4.	Bag sewing/sealing machine	
5.	Bag stitching machine	
6.	Belt conveyors	
7.	Bucket elevators	
8.	Conditioner	
9.	Drying oven	
10.	Dust collection system	
11.	Dust masks/respirators	
12.	Ear protectors	
13.	Feed ingredient hoppers	
14.	Feed mixer (horizontal or vertical)	
15.	Feed sampling probe	
16.	Fire extinguishers	
17.	First aid box	
18.	Forklift	
19.	Grease gun	
20.	Hammer mill (grinder)	
21.	Hand pallet truck	
22.	Laboratory grinder	
23.	Laboratory weighing balance	
24.	Lubrication equipment	
25.	Magnetic separator	
26.	Micro-ingredient dosing system	
27.	Moisture meter	
28.	Needles (pack)	
29.	Pellet cooler	
30.	Pellet crumbler	
31.	Pellet mill	
32.	Pelletizer (optional)	
33.	Personal protective equipment (PPE)	
34.	Ph meter (where applicable)	
35.	Power generator	
36.	Protective overalls	
37.	Rapid test kits/assay tools.	
38.	Roller mill	
39.	Safety boots	
40.	Safety gloves	

41.	Safety goggles	
42.	Sample divider	
43.	Screw conveyors	
44.	Screwdriver set	
45.	Shovels	
46.	Sieve set (particle size analysis)	
47.	Spanner set	
48.	Steam boiler (for pellet production)	
49.	Storage silos or bins	
50.	Tool box	
51.	Trolleys	
52.	Vibrating screen/sifter	
53.	Water supply system	
54.	Weighing scales (platform and digital)	
55.	Welding machine	
56.	Wheelbarrows	



**LIST OF PARTICIPANTS FOR NOS FEED PRODUCTION LEVELS 3, 4 AND 5
CERTIFICATION ADDITION REVIEW OF AGRICULTURE CURRICULA IN
TERTIARY EDUCATION (ZERO DRAFT)**

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