



NATIONAL BOARD FOR TECHNICAL EDUCATION

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

IN COLLABORATION WITH



**NATIONAL OCCUPATIONAL
STANDARDS
(NOS)**

RANCHING LEVELS 1 - 3

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

NATIONAL SKILLS QUALIFICATION (NSQ)



NATIONAL SKILLS QUALIFICATION GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals interested in pursuing a career in **Ranching** for the award of National Skills Qualifications (NSQ)/National Occupational Standards (NOS). It is aimed at producing competencies necessary to support in **Ranching** at **NSQ Level 1**.

This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

The qualification is designed to produce competent entry level Ranch assistant with knowledge, skills, and attitude required to perform routine beef cattle production activities under supervision using basic precision agriculture principles and tools

QUALIFICATION REQUIREMENTS

All Candidates must:

- Be at least sixteen (16) years of age;
- Be medically fit;
- Be mentally fit (mental alertness);
- Be a Nigerian citizen;
- Other nationals should present International passport, residence permit or Parent work permit;
- Be vetted;
- Interested in agricultural production and related support operations;
- Able to carry out simple practical tasks under supervision.

QUALIFICATION OBJECTIVES

To achieve this qualification, the learner should have the following competencies:

1. Communicate effectively using simple workplace communication methods in Ranching operations.
2. Work effectively as a member of a team while maintaining positive workplace relationships in Ranching activities.
3. Apply workplace health, safety, hygiene, and sanitation practices during Ranching
4. Identify common livestock breeds and ranch facilities.
5. Carry out routine livestock handling procedures.
6. Assist in pasture establishment and maintenance.
7. Provide feed and clean drinking water to livestock.
8. Maintain cleanliness of ranch facilities and equipment.
9. Assist in record keeping.
10. Demonstrate good work ethics and teamwork.

NATIONAL SKILLS QUALIFICATION TABLE

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours	Practice (workplace) Hours	Remark
1	AGR/RAN/001/L1	Communication in the Ranching Workplace	2	20	40	Mandatory
2	AGR/RAN/002/L1	Teamwork in the Ranching Workplace	2	20	40	Mandatory
3	AGR/RAN/003/L1	Workplace Health, Safety and Hygiene	2	20	40	Mandatory
4	AGR/RAN/004/L1	Basic Principles of Ranching	3	30	60	Mandatory
5	AGR/RAN/005/L1	Basic Livestock Identification and Handling	3	30	60	Mandatory
6	AGR/RAN/006/L1	Feed Resources and Feeding Practices	4	40	80	Mandatory
7	AGR/RAN/007/L1	Ranch Sanitation and Hygiene	3	30	60	Mandatory
TOTAL			19	190	380	

QUALIFICATION STRUCTURE

This qualification comprises a total of seven (7) Mandatory Units, with a credit value of 19 and 190 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 unit's content.
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 Vocational Qualification framework, NSQF.
Unit credit value	The value assigned to the unit is 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, because 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.

UNIT 001: COMMUNICATION IN THE RANCHING WORKPLACE

Unit Reference Number: AGR/RAN/001/L1

NSQ Level: 1

Credit Value: 2

Guided Learning hours: 20

Practice Time: 40 hours

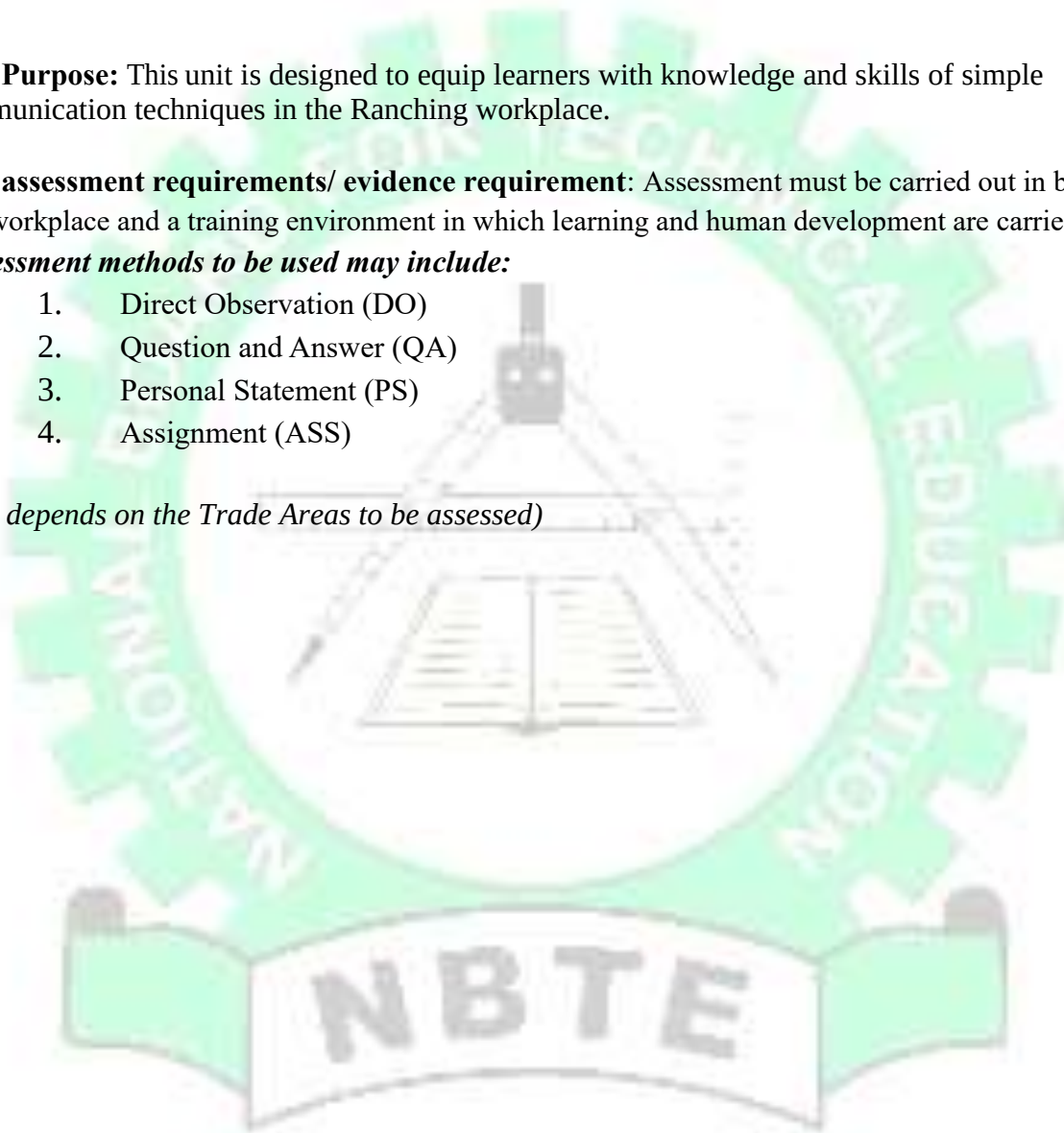
Unit Purpose: This unit is designed to equip learners with knowledge and skills of simple communication techniques in the Ranching workplace.

Unit assessment requirements/ evidence requirement: Assessment must be carried out in both a real workplace and a training environment in which learning and human development are carried out.

Assessment methods to be used may include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Personal Statement (PS)
4. Assignment (ASS)

(This depends on the Trade Areas to be assessed)



Unit 001: Communication in the Ranching Workplace

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain communication in the ranching workplace.</i>	1.1	Define communication.		
	1.2	Identify the types of communication used in ranch operations.		
	1.3	State the importance of effective communication in ranching.		
	1.4	Identify barriers to effective communication		
LO 2: <i>Demonstrate verbal and non-verbal communication skills.</i>	2.1	Follow workplace instructions correctly.		
	2.2	Communicate clearly with supervisors and co-workers.		
	2.3	Use appropriate verbal and non-verbal communication during ranch activities.		
	2.4	Respond appropriately to workplace questions and instructions.		
LO 3: <i>Use workplace communication tools.</i>	3.1	Locate the various communication tools/signs in the workplace.		
	3.2	Use the various communication tools/equipment effectively in a workplace.		
	3.3	Pass information effectively to the right personnel		
	3.4	Obey instructions in line with the ethics of the workplace.		

Learner's Signature:

Date:

Assessor's Signature:

Date:

IQA Signature (if sampled):

Date:

EQA Signature (if sampled):

Date:



UNIT 002: TEAMWORK IN THE RANCHING WORKPLACE

Unit Reference Number: AGR/RAN/002/L1

NSQ Level: 1

Credit Value: 2

Guided Learning Hours: 20

Practice Time: 40 Hours

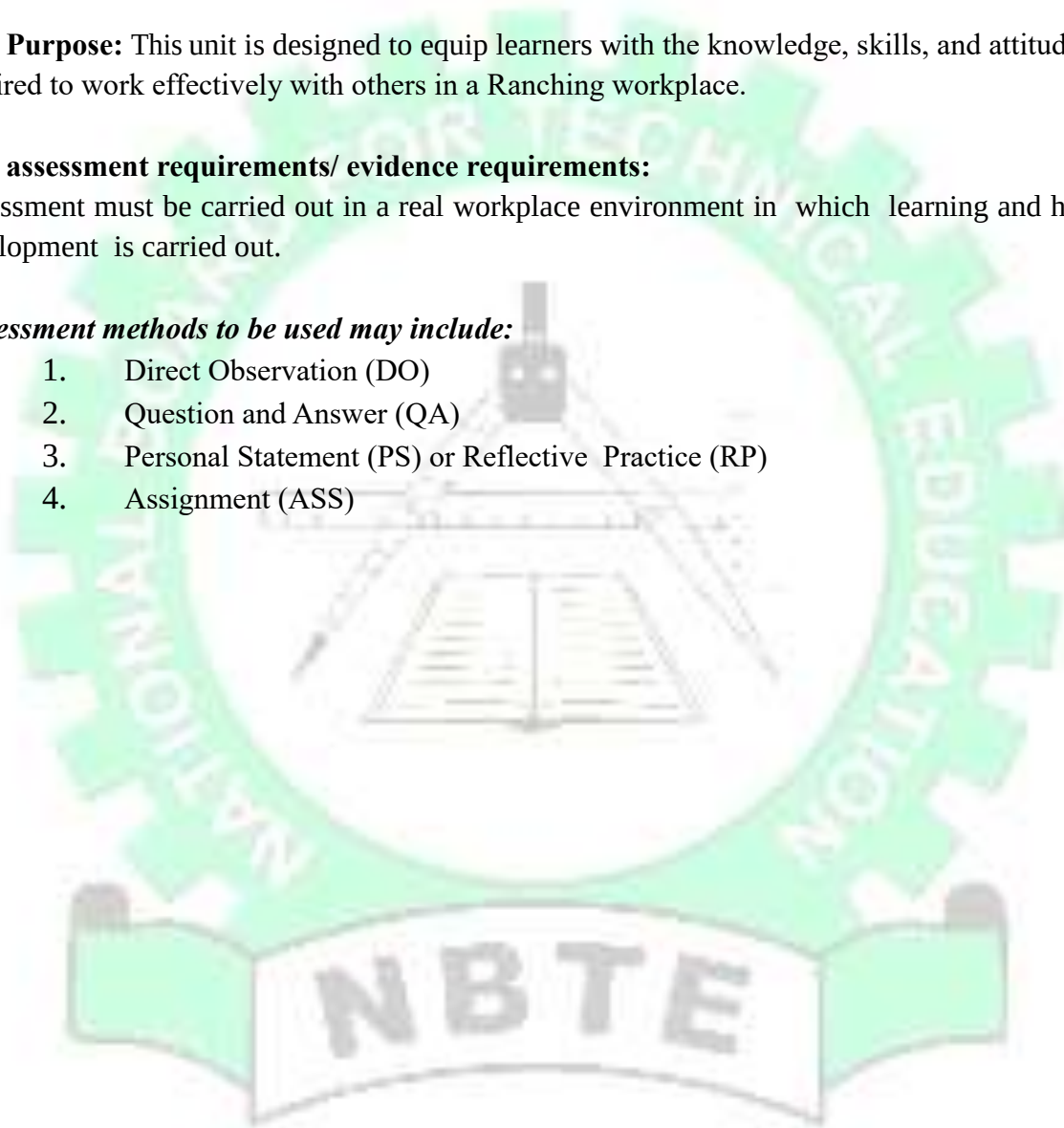
Unit Purpose: This unit is designed to equip learners with the knowledge, skills, and attitudes required to work effectively with others in a Ranching workplace.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in a real workplace environment in which learning and human development is carried out.

Assessment methods to be used may include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Personal Statement (PS) or Reflective Practice (RP)
4. Assignment (ASS)



Unit 002: Teamwork in the Ranching Workplace

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA The learner can:	Evidence Type					Evidence Ref. Page No.			
LO 1: Explain the principles of teamwork in ranching.	1.1	Define teamwork.									
	1.2	State the importance of teamwork in ranch operations.									
	1.3	Identify the roles of team members in a ranch.									
	1.4	Identify the benefits of cooperation in the workplace.									
LO 2: Work effectively as a member of a ranch team.	2.1	Carry out assigned duties as instructed.									
	2.2	Cooperate with team members during ranch activities.									
	2.3	Share tools and equipment responsibly.									
	2.4	Complete assigned tasks within the required time.									
LO 3: Demonstrate positive workplace behaviour.	3.1	Show respect to supervisors and co-workers.									
	3.2	Follow workplace rules and regulations.									
	3.3	Resolve minor disagreements through appropriate communication.									
	3.4	Maintain punctuality and regular attendance at work.									
LO 4: Support team performance during ranch operations.	4.1	Assist team members in completing assigned tasks.									
	4.2	Communicate work progress to supervisor.									
	4.3	Participate in routine team meetings and briefings.									
	4.4	Contribute to maintaining a safe and productive work environment.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 003: WORKPLACE HEALTH, SAFETY AND HYGIENE

Unit Reference Number: AGR/RAN/003/L1

NSQ Level: 1

Credit Value: 2

Guided Learning Hours: 20

Practice Time: 40hours

Unit Purpose:

This unit equips learners with the knowledge and skills to maintain a safe, healthy, and hygienic Ranching workplace.

Unit Assessment Requirements/Evidence Requirements:

Assessment must be conducted in a real workplace environment in which learning and human development are carried out.

Assessment methods to be used may include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Personal Statement (PS)
4. Assignment (ASS)



Unit 003: Workplace Health, Safety and Hygiene

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain workplace health, safety and hygiene practices in Ranch.</i>	1.1	Define workplace health, safety and hygiene.		
	1.2	Identify common hazards in ranch operations.		
	1.3	State the importance of workplace health and safety.		
	1.4	Identify appropriate Personal Protective Equipment (PPE) used in ranching.		
LO 2: <i>Apply workplace safety practices.</i>	2.1	Wear appropriate PPE before commencing work.		
	2.2	Follow safety instructions during ranch activities.		
	2.3	Use ranch tools and equipment safely.		
	2.4	Report unsafe conditions and accidents to the supervisor promptly.		
LO 3: <i>Maintain workplace hygiene.</i>	3.1	Wash hands before and after handling livestock.		
	3.2	Carry out cleaning and disinfecting of tools and equipment after use.		
	3.3	Maintain cleanliness of livestock pens and work areas.		
	3.4	Dispose of waste according to ranch procedures.		
LO 4: <i>Respond appropriately to workplace emergencies.</i>	4.1	Identify emergencies.		
	4.2	Call for emergency response.		
	4.3	Demonstrate basic emergency response procedures.		
	4.4	Assist in maintaining a safe and hygienic work environment at all times.		

Learner's Signature:

Date:

Assessor's Signature:

Date:

IQA Signature (if sampled):

Date:

EQA Signature (if sampled):

Date:



UNIT 004: BASIC PRINCIPLES OF RANCHING

Unit Reference Number: AGR/RAN/004/L1

NSQ Level: 1

Credit Value: 3

Guided Learning hours: 30

Practice Time: 60 Hours

Unit Purpose: This unit is designed to equip learners with basic knowledge and skills in Ranching

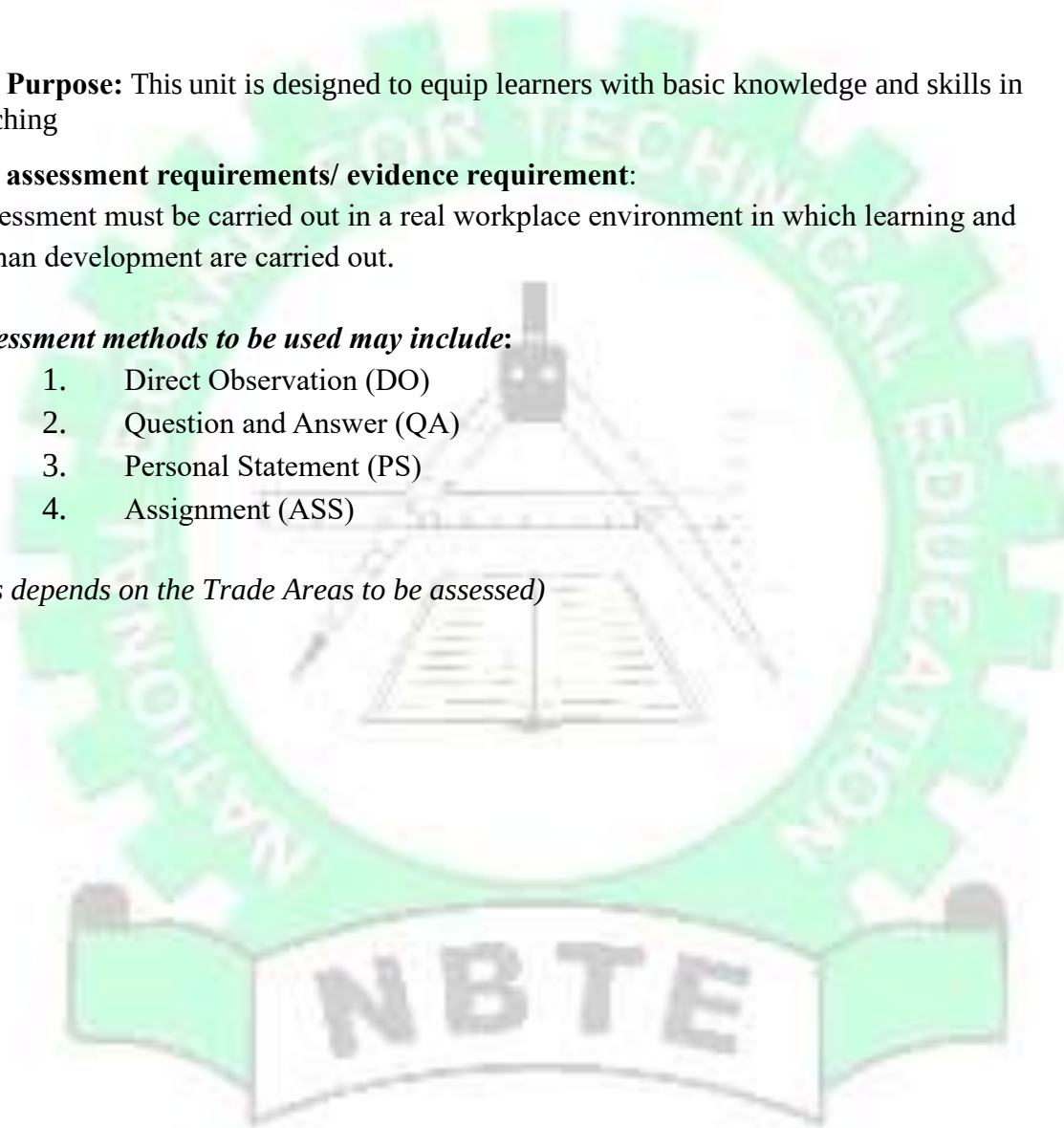
Unit assessment requirements/ evidence requirement:

Assessment must be carried out in a real workplace environment in which learning and human development are carried out.

Assessment methods to be used may include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Personal Statement (PS)
4. Assignment (ASS)

(This depends on the Trade Areas to be assessed)



Unit 004: Basic Principles of Ranching

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain the basic concepts of ranching.</i>	1.1	Define ranching.		
	1.2	State the requirements for ranch establishment.		
	1.3	State the importance of ranching.		
	1.4	Identify the types of ranches.		
LO 2: <i>Identify ranch facilities and equipment.</i>	2.1	Identify common ranch facilities.		
	2.2	Identify basic ranch tools and equipment.		
	2.3	State the uses of ranch facilities and equipment.		
	2.4	Clean and store ranch tools after use.		
LO 3: <i>Carry out routine ranch operations.</i>	3.1	Assist in feeding livestock.		
	3.2	Provide clean drinking water to livestock.		
	3.3	Clean livestock pens and ranch surroundings.		
	3.4	Observe livestock behaviour and report abnormalities.		
LO 4: <i>Demonstrate safe work practices on the ranch.</i>	4.1	Wear appropriate Personal Protective Equipment (PPE).		
	4.2	Assist in moving livestock safely.		
	4.3	Maintain personal hygiene during ranch activities.		
	4.4	Keep the work area clean after completing assigned tasks.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

UNIT 005: BASIC LIVESTOCK IDENTIFICATION AND HANDLING

Unit Reference Number: AGR/RAN/005/L1

NSQ Level: 1

Credit Value: 3

Guided Learning hours: 30

Practice Time: 60 Hours

Unit Purpose: This unit is designed to equip learners with basic knowledge and skills in livestock identification and handling

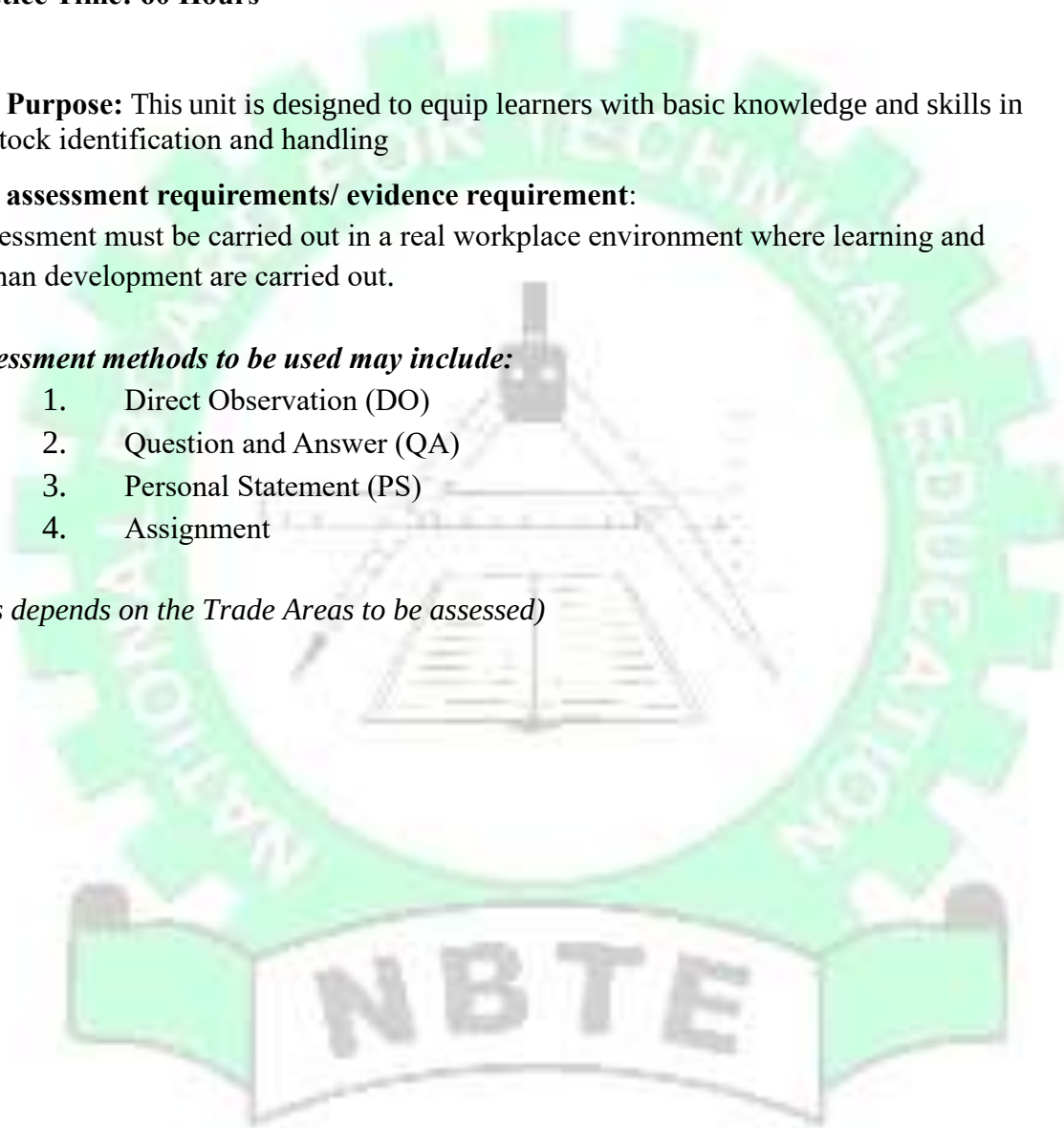
Unit assessment requirements/ evidence requirement:

Assessment must be carried out in a real workplace environment where learning and human development are carried out.

Assessment methods to be used may include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Personal Statement (PS)
4. Assignment

(This depends on the Trade Areas to be assessed)



Unit 005: Basic Livestock Identification and Handling

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain basic livestock identification</i>	1.1	Identify common livestock species kept on a ranch.		
	1.2	Identify livestock based on phenotypic characteristics.		
	1.3	State the importance of livestock identification.		
	1.4	Identify Animal products under ranch		
LO 2: <i>Identify livestock using basic identification methods.</i>	2.1	Recognize animal identification tags or marks.		
	2.2	Classify livestock according to age, breed and sex.		
	2.3	Record information on identified animals correctly.		
LO 3: <i>Carry out basic livestock handling procedures.</i>	3.1	Approach livestock calmly and safely.		
	3.2	Restrain livestock using appropriate handling techniques.		
	3.3	Move livestock safely from one location to another.		
	3.4	Release livestock without causing stress or injury.		
LO 4: <i>Apply animal welfare and safety practices during livestock handling.</i>	4.1	Wear appropriate Personal Protective Equipment (PPE) during livestock handling.		
	4.2	Apply animal welfare principles during handling.		
	4.3	Carry out cleaning of livestock handling facilities after use.		
	4.4	Report injured, sick or abnormal animals to supervisor.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

UNIT 006: FEED RESOURCES AND FEEDING PRACTICES

Unit Reference Number: AGR/RAN/006/L1

NSQ Level: 1

Credit Value: 4

Guided Learning hours: 40

Practice Time: 80 hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills in feed resources and feeding practices

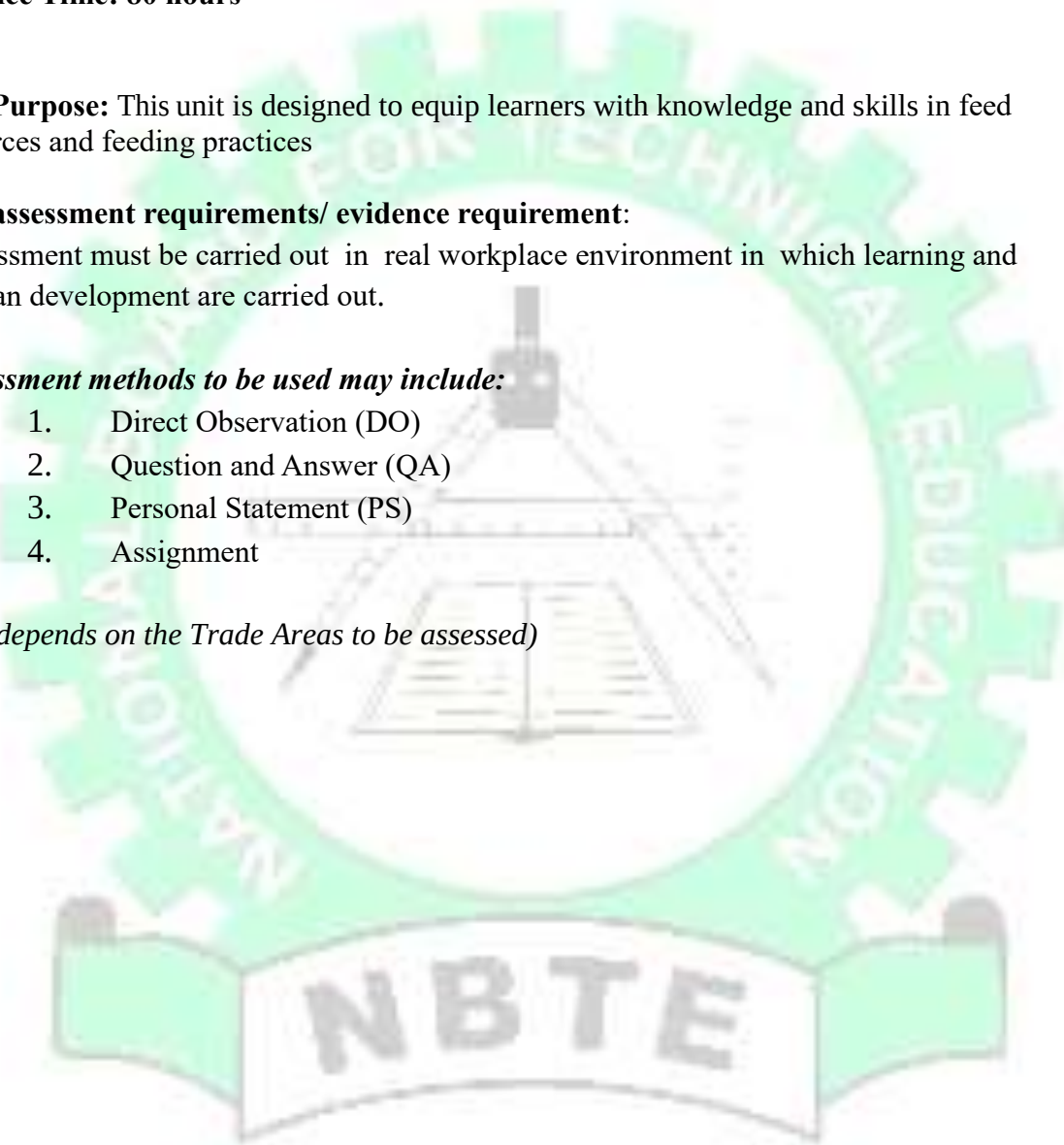
Unit assessment requirements/ evidence requirement:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Assessment methods to be used may include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Personal Statement (PS)
4. Assignment

(This depends on the Trade Areas to be assessed)



Unit 006: Feed Resources and Feeding Practices

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO 1: <i>Explain basic feed resources for livestock.</i>	1.1	Classify feed resources into roughages and concentrates.									
	1.2	Identify common forages and fodder used in ranching.									
	1.3	State the importance of good nutrition in livestock production.									
	1.4	Identify sources of clean water as essential nutrients for livestock									
LO 2: <i>Explain feed for livestock.</i>	2.1	Identify appropriate feed for different livestock species.									
	2.2	Measure feed according to the individual animal requirement as instructed by the supervisor									
	2.3	Prepare feeding equipment before feeding.									
	2.4	Carryout cleanliness of feed and feeding equipment.									
LO 3: <i>Carry out livestock feeding operations.</i>	3.1	Feed livestock according to the feeding schedule.									
	3.2	Provide adequate clean drinking water to livestock.									
	3.3	Observe livestock during feeding and report abnormalities.									
	3.4	Remove leftover or spoiled feed after feeding.									
LO 4: <i>Identify strategies for feed storage and feeding facilities.</i>	4.1	Store feed materials appropriately to prevent spoilage.									
	4.2	Clean feed stores regularly.									
	4.3	Protect feed from pests, rodents, and contamination.									
	4.4	Maintain simple records of feed usage under supervision.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 007: RANCH SANITATION AND HYGIENE

Unit Reference Number: AGR/RAN/007/L1

NSQ Level: 1

Credit Value: 3

Guided Learning hours: 30

Practice Time: 60 hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills in ranch sanitation and hygiene

Unit assessment requirements/ evidence requirement:

Assessment must be carried out in a real workplace environment where learning and human development are carried out..

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Personal Statement (PS)
4. Assignment

(This depends on the Trade Areas to be assessed)



Unit 007: Ranch Sanitation and Hygiene

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain the principles of ranch sanitation and hygiene.</i>	1.1	Define sanitation and hygiene in ranching.		
	1.2	State the importance of ranch sanitation and hygiene.		
	1.3	Determine common sources of contamination on a ranch.		
	1.4	Explain personal hygiene practices required in ranch operations.		
LO 2: <i>Maintain cleanliness of ranch facilities.</i>	2.1	Clean livestock pens and shelters.		
	2.2	Clean feeding and watering equipment.		
	2.3	Remove manure and other waste from the ranch.		
	2.4	Assist in ranch waste management according to established procedures		
LO 3: <i>Apply hygiene practices during ranch operations.</i>	3.1	Wash and disinfect hands before and after handling livestock.		
	3.2	Wear appropriate Personal Protective Equipment (PPE)		
	3.3	Clean and disinfect tools and equipment after use.		
	3.4	Maintain personal cleanliness throughout ranch activities		
LO 4: <i>Prevent disease through sanitation and biosecurity practices.</i>	4.1	Identify unhygienic conditions on the ranch.		
	4.2	Monitor ranch fence.		
	4.3	Restrict unauthorized access to livestock areas.		
	4.4	Report unhygienic conditions on the ranch.		
	4.5	Assist in implementing basic biosecurity measures under supervision.		
	4.6	Maintain a clean and safe working environment at all times.		
	4.7	Dispose dead animals appropriately		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:





NATIONAL SKILLS QUALIFICATION (NSQ)

RANCHING

LEVEL 2

JUNE, 2026



NATIONAL SKILLS QUALIFICATION GENERAL INFORMATION OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in Ranching for the award of National Skills Qualifications (NSQ)/National Occupational Standards (NOS). It is aimed at producing competencies necessary to support in **Ranching at NSQ Level 2**.

This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

This qualification is designed to produce competent entry level Ranch Assistant with knowledge, skills and attitudes required to perform routine Ranching activities under minimal supervision using basic precision agriculture principles and tools .

QUALIFICATION REQUIREMENTS

All Candidates must:

- a. Be at least eighteen (18) years of age
- b. Be medically fit
- c. Be mentally fit (Mental alertness)
- d. Be a Nigerian citizen
- e. Other nationals (International passport, residence permit)
- f. Be vetted
- g. Have completed the NSQ Level 1 qualification in Ranching, or its equivalent
- h. Hold equivalent competence recognised through Recognition of Prior Learning (RPL)

QUALIFICATION OBJECTIVES

On completion of this qualification, the learner will be able to:

1. Communicate instructions, observations and ranch information accurately, using the reporting formats and channels agreed for the ranch.
2. Work as a member of a ranch team, meeting the output targets and timeframes set for each operation and resolving routine workplace issues as they arise.
3. Apply workplace health, safety, hygiene and biosecurity procedures on every task, and record all hazards and incidents on the day they occur.
4. Prepare and deliver livestock rations to the specified feeding regime, adjusting quantities to the class and condition of the stock.
5. Establish and maintain pasture to the sward height and stocking density set for each paddock through a full grazing cycle.
6. Monitor animal health and welfare daily, administer routine preventive treatments to schedule, and report sick or injured animals without delay.
7. Operate and carry out routine maintenance on basic ranch equipment in accordance with the manufacturer's instructions and the ranch's safety procedures.

8. Identify individual animals and maintain accurate identification and production records, updating them at the interval set for the ranch.
9. Carry out breeding and reproductive management tasks, including heat detection, service and pregnancy monitoring, to the ranch breeding calendar, and record the outcome of each.

NATIONAL SKILLS QUALIFICATION UNIT TABLE

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours	Practice (workplace) Hour	Remark
1	AGR/RAN/001/L2	Communication in the Ranching Workplace	3	30	60	Mandatory
2	AGR/RAN/002/L2	Teamwork in Ranching Workplace	3	30	60	Mandatory
3	AGR/RAN/003/L2	Workplace Health, Safety and Hygiene	3	30	60	Mandatory
4	AGR/RAN/004/L2	Livestock Nutrition and Feeding	4	40	160	Mandatory
5	AGR/RAN/005/L2	Pasture Establishment and Management	4	40	160	Mandatory
6	AGR/RAN/006/L2	Animal Health and Welfare	3	30	120	Mandatory
7	AGR/RAN/007/L2	Basic Ranch Equipment Operation	2	20	40	Mandatory
8	AGR/RAN/008/L2	Livestock Identification and Record Keeping	2	20	40	Mandatory
9	AGR/RAN/009/L2	Breeding and Reproductive Management	3	30	60	Mandatory
TOTAL			27	270	760	

QUALIFICATION STRUCTURE

This qualification comprises a total of nine (9) Mandatory Units, with a credit value of 27 and 270 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.

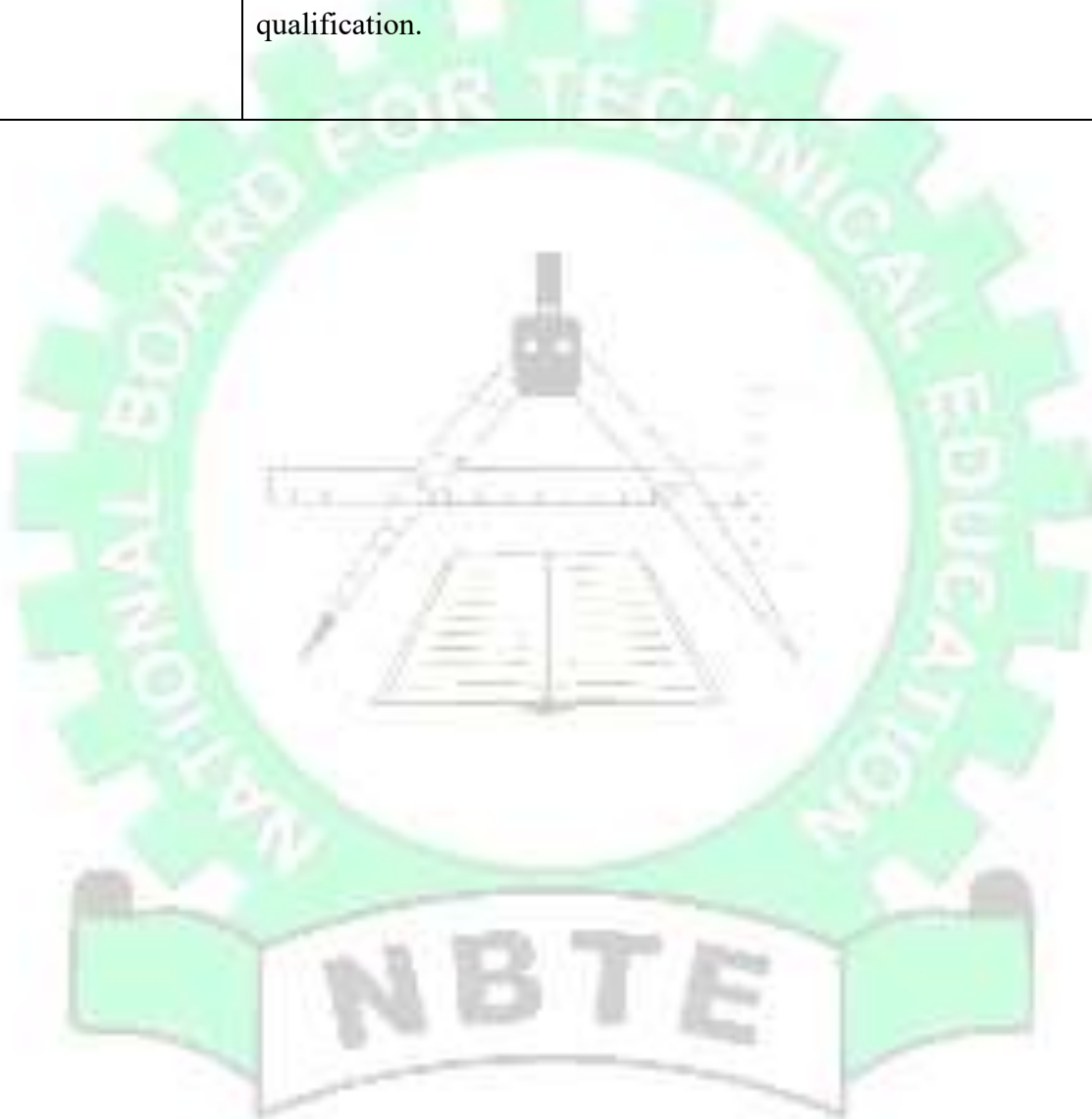
In addition to the GLH, the qualification requires at least twice or thrice the GLH as practice time. Practice time is the time a learner is expected to spend applying the skills of each unit in a real workplace environment, carrying out the same tasks repeatedly until performance becomes consistent, 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 unit's content.
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 Vocational 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.



UNIT 001: COMMUNICATION IN THE RANCHING WORKPLACE

Unit Reference Number: AGR/RAN/001/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 60 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills on effective communication in Ranching operations workplace

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used may include:

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

Unit 001: Communication in the Ranching Workplace

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO 1: <i>Explain workplace communication principles.</i>	1.1	Explain the importance of workplace communication.									
	1.2	Explain communication channels used in the workplace.									
	1.3	Discuss barriers to effective communication.									
	1.4	State methods of overcoming communication barriers.									
LO 2: <i>Communicate effectively in the workplace.</i>	2.1	Interpret work instructions accurately.									
	2.2	Communicate clearly with supervisors and co-workers.									
	2.3	Use appropriate verbal and written communication.									
	2.4	Provide feedback on assigned tasks.									
LO 3: <i>Prepare workplace documents.</i>	3.1	Complete workplace report template/forms accurately.									
	3.2	Record workplace information correctly.									
	3.3	Maintain communication records.									
	3.4	Submit reports to appropriate supervisor timely and effectively.									
LO 4: <i>Maintain professional communication.</i>	4.1	Observe workplace communication protocols.									
	4.2	Maintain confidentiality of information.									
	4.3	Resolve communication challenges appropriately.									
	4.4	Demonstrate professional workplace etiquette.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 002: TEAMWORK IN RANCHING WORKPLACE

Unit Reference Number: AGR/RAN/002/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 60 Hours

Unit Purpose: This unit is designed to equip learners with knowledge, skills and understanding required to develop team spirit and a positive working relationship with colleagues.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used may include:

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

Unit 002: Teamwork in Ranching Workplace

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain teamwork principles.</i>	1.1	Explain teamwork concepts.		
	1.2	Identify team roles and responsibilities.		
	1.3	State the benefits of teamwork.		
	1.4	Identify factors affecting team performance.		
LO 2: <i>Work effectively in a team.</i>	2.1	Perform assigned work.		
	2.2	Cooperate with team members.		
	2.3	Share information appropriately.		
	2.4	Support achievement of team goals.		
LO 3: <i>Resolve workplace issues.</i>	3.1	Identify workplace conflicts.		
	3.2	Respect individual differences.		
	3.3	Maintain positive working relationships.		
LO 4: <i>Improve team performance.</i>	4.1	Participate in team meetings.		
	4.2	Contribute ideas for improvement.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

	4.3	Cooperate with agreed team decisions.																	
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UNIT 003: WORKPLACE HEALTH, SAFETY AND HYGIENE

Unit Reference Number: AGR/RAN/003/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 60 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills required to implement workplace health, safety and hygiene procedures Ranching operations.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

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

UNIT 003: WORKPLACE HEALTH, SAFETY AND HYGIENE

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain workplace health, safety and environmental requirements.</i>	1.1	Explain workplace health and safety requirements.		
	1.2	Describe workplace hazards.		
	1.3	Explain environmental risks.		
	1.4	State emergency procedures.		
LO 2: <i>Apply workplace safety procedures.</i>	2.1	Wear appropriate PPE.		
	2.2	Follow safe work procedures.		
	2.3	Use equipment safely.		
	2.4	Report hazards promptly.		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 3: <i>Maintain workplace hygiene and environmental standards.</i>	3.1	Maintain workplace cleanliness.		
	3.2	Segregate and dispose of waste appropriately.		
	3.3	Prevent environmental pollution.		
	3.4	Maintain sanitation facilities.		
LO 4: <i>Respond to workplace emergencies.</i>	4.1	Explain how to respond to emergencies.		
	4.2	Use basic firefighting equipment safely.		
	4.3	Describe how to apply basic first aid under supervision.		
	4.4	Prevent animals from predator's attack.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

	4.5	Participate in emergency drills.																	
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UNIT 004: LIVESTOCK NUTRITION AND FEEDING

Unit Reference Number: AGR/RAN/004/L2

NSQ Level: 2

Credit Value: 4

Guided Learning Hours: 40

Practice Time: 160 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills on livestock nutrition and feeding.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

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

Unit 004: Livestock Nutrition and Feeding

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain livestock nutrition and feeding principles.</i>	1.1	List the major classes of livestock feeds.		
	1.2	Explain the functions of nutrients in livestock production.		
	1.3	State feed resources used in ranching.		
	1.4	State the importance of balanced feeding in livestock production		
LO 2: <i>Prepare livestock feed according to individual animal requirements.</i>	2.1	Select appropriate feed ingredients for different classes of livestock.		
	2.2	Measure feed quantities according to feeding guidelines.		
	2.3	Mix feed ingredients using recommended procedures.		
	2.4	Prepare feeding equipment before feeding livestock.		
LO 3: <i>Carry out livestock feeding operations.</i>	3.1	Feed livestock according to the feeding schedule.		
	3.2	Provide adequate clean drinking water to livestock.		
	3.3	Monitor feed intake and animal feeding behaviour.		
	3.4	Remove spoiled or leftover feed after feeding		
LO 4: <i>Maintain feed quality and feeding records.</i>	4.1	Store feed materials under appropriate conditions.		
	4.2	Inspect feed for spoilage, contamination and pest infestation.		
	4.3	Maintain simple feed inventory and feeding records.		
	4.4	Report feed shortages and feeding abnormalities to the supervisor.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 005: PASTURE ESTABLISHMENT AND MANAGEMENT

Unit Reference Number: AGR/RAN/005/L2

NSQ Level: 2

Credit Value: 4

Guided Learning Hours: 40

Practice Time: 160 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills for pasture establishment and management using appropriate techniques.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

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

Unit 005: Pasture Establishment and Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain forage establishment and management principles.</i>	1.1	List common forages used in ranching.		
	1.2	Explain the importance of forages in livestock production.		
	1.3	Explain the concept of forage inventory and evaluation.		
	1.4	State factors affecting forages establishment and growth.		
	1.5	State the principles of sustainable forage management.		
LO 2: <i>Establish pasture for livestock production.</i>	2.1	Prepare land for pasture establishment.		
	2.2	Select suitable pasture species according to environmental condition of the ranch.		
	2.3	Plant pasture seeds or vegetative materials using recommended methods.		
	2.4	Apply appropriate irrigation and fertilizer practices where necessary.		
LO 3: <i>Maintain pasture for optimum production.</i>	3.1	Control weeds in pasture fields using appropriate methods.		
	3.2	Monitor pasture growth and condition regularly.		
	3.3	Apply recommended pasture improvement practices.		
	3.4	Prevent overgrazing through proper pasture management.		
LO 4: <i>Implement grazing management practices.</i>	4.1	Identify grazing areas according to the grazing plan.		
	4.2	Calculate stocking rate and carrying capacity of pasture.		
	4.3	Rotate livestock between grazing paddocks.		
	4.4	Monitor pasture utilization during grazing.		

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

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

	4.5	Maintain simple pasture management records and report observations to the supervisor.																	
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UNIT 006: ANIMAL HEALTH AND WELFARE

Unit Reference Number: AGR/RAN/006/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 120 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills for maintenance of animal health and welfare.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

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

Unit 006: Animal Health and Welfare

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: <i>Explain animal health and welfare principles.</i>	1.1	Explain the concepts of animal health and animal welfare.		
	1.2	Describe common signs of healthy and unhealthy livestock.		
	1.3	List common livestock diseases and parasites.		
	1.4	State the importance of animal welfare in ranch management.		
LO 2: <i>Explain livestock health management principles.</i>	2.1	Explain the principles of livestock health management.		
	2.2	Differentiate between infectious and non-infectious diseases.		
	2.3	Explain the importance of disease prevention and biosecurity in ranch management.		
	2.4	Describe the roles of vaccination.		
	2.5	Describe the roles of parasitic control.		
	2.6	Carry out routine health monitoring in livestock production.		
LO 3: <i>Monitor livestock health status.</i>	3.1	Observe livestock for signs of illness, injury, or stress.		
	3.2	Check livestock for external parasites and abnormalities.		
	3.3	Isolate sick or injured		

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
		animals according to ranch procedures.		
	3.4	Report disease symptoms and abnormal conditions to the supervisor.		
LO 4: <i>Apply routine animal health management practices.</i>	4.1	Assist in vaccination.		
	4.2	Assist in deworming programmes.		
	4.3	Carry out basic animal health treatments under supervision.		
	4.4	Clean and disinfect animal housing and equipment.		
	4.5	Handle animal waste and dead animals according to biosecurity procedures.		
LO 5: <i>Implement animal welfare practices.</i>	5.1	Handle livestock humanely during routine operations.		
	5.2	Provide adequate feed, water, and shelter for livestock.		
	5.3	Minimize stress during handling, transportation, and restraint.		
	5.4	Maintain animal health and welfare records according to ranch procedures.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 007: BASIC RANCH EQUIPMENT OPERATION

Unit Reference Number: AGR/RAN/007/L2

NSQ Level: 2

Credit Value: 2

Guided Learning Hours: 40

Practice Time: 40 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills for basic ranch equipment operation and maintenance.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

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

Unit 007: Basic Ranch Equipment Operation

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO 1: <i>Explain the principles of ranch equipment operation.</i>	1.1	List common ranch equipment and tools.									
	1.2	State the functions of ranch equipment.									
	1.3	Explain safety precautions in equipment operation.									
	1.4	State the importance of equipment maintenance									
LO 2: <i>Operate basic ranch equipment safely.</i>	2.1	Inspect equipment before use.									
	2.2	Operate basic ranch equipment according to standard operating procedures.									
	2.3	Use appropriate Personal Protective Equipment (PPE) during equipment operation.									
	2.4	Shut down equipment safely after use.									
LO 3: <i>Perform routine maintenance on ranch equipment.</i>	3.1	Clean equipment after use.									
	3.2	Lubricate moving parts according to the manufacturer's recommendations.									
	3.3	Check equipment for wear and tear, damage, or defects.									
	3.4	Store equipment properly after use.									
LO 4: <i>Maintain equipment operation records.</i>	4.1	Record equipment usage.									
	4.2	Report equipment faults and breakdowns promptly.									
	4.3	Update routine operation records									
	4.4	Follow equipment maintenance schedules under supervision.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 008: LIVESTOCK IDENTIFICATION AND RECORD KEEPING

Unit Reference Number: AGR/RAN/008/L2

NSQ Level: 2

Credit Value: 2

Guided Learning Hours: 40

Practice Time: 40 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills for livestock identification and record keeping.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

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

Unit 008: Livestock Identification and Record Keeping

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO 1: <i>Explain livestock identification and record keeping principles.</i>	1.1	Explain the importance of livestock identification.									
	1.2	List common livestock identification methods.									
	1.3	State the importance of record keeping in ranch management.									
	1.4	State the different livestock production systems and records.									
LO 2: <i>Identify livestock using standard identification methods.</i>	2.1	Identify livestock using ear tags, brands, tattoos, or electronic identification devices and record.									
	2.2	Confirm livestock identity using ranch records.									
	2.3	Classify livestock according to species, breed, age, and sex.									
	2.4	Replace damaged or missing identification tags under supervision.									
LO 3: <i>Maintain livestock production records.</i>	3.1	Record livestock births, deaths, purchases, and sales.									
	3.2	Maintain health, vaccination, and treatment records.									
	3.3	Record feeding and breeding activities accurately.									
	3.4	Update livestock inventory records regularly.									
LO 4: <i>Manage livestock information and reports.</i>	4.1	Organize livestock records according to ranch procedures.									
	4.2	Prepare simple livestock inventory reports.									
	4.3	Report discrepancies in livestock records to the supervisor.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 009: BREEDING AND REPRODUCTIVE MANAGEMENT

Unit Reference Number: AGR/RAN/009/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 60 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills on breeding and reproductive management.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used include:

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

Unit 009: Breeding and Reproductive Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO 1: <i>Explain the principles of livestock breeding and reproduction.</i>	1.1	Explain the concept of livestock breeding									
	1.2	Explain the importance of breeding in livestock production.									
	1.3	Describe the reproductive organs of male and female livestock.									
	1.4	Describe common breeding methods used in ranching.									
	1.5	State the factors affecting reproductive performance.									
LO 2: <i>Identify breeding animals and reproductive status.</i>	2.1	Select healthy breeding stock according to established criteria.									
	2.2	Identify signs of heat (oestrus) in female livestock.									
	2.3	Separate breeding animals according to the breeding programme.									
LO 3: <i>Assist in breeding and reproductive activities.</i>	3.1	Assist in natural mating according to ranch procedures.									
	3.2	Prepare breeding facilities and equipment.									
	3.3	Assist in pregnancy detection under supervision.									
	3.4	Provide routine care for pregnant animals according to established procedures.									
LO 4: <i>Maintain breeding and reproductive records.</i>	4.1	Record mating and breeding activities accurately.									
	4.2	Maintain pregnancy and calving/kidding/lambing records.									
	4.3	Monitor reproductive performance and report abnormalities.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:





NATIONAL SKILLS QUALIFICATIONS (NSQ)

RANCHING

LEVEL 3

JUNE, 2026



GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals interested in pursuing a career in Ranching for the award of National Skills Qualifications (NSQ)/National Occupational Standards (NOS). It is aimed at producing competencies necessary to support in **Ranching at NSQ Level 3**

This qualification is subject to review as and when the need arises.

QUALIFICATION PURPOSE

This qualification is designed to produce competent Ranch Technician with knowledge, skills and attitude required to perform routine ranch operation activities using precision agriculture principles and tools.

QUALIFICATION REQUIREMENTS

All Candidates must:

- a. Be at least twenty (20) years of age
- b. Be medically fit
- c. Be mentally fit (mental alertness)
- d. Be a Nigerian citizen
- e. Other nationals (International passport, residence permit)
- f. Be vetted
- g. Have completed the NSQ Level 2 qualification in Ranching, or its equivalent

QUALIFICATION OBJECTIVES

At the end of this qualification, the learner should be able to:

1. Communicate effectively using simple workplace communication methods in Ranching operations.
2. Work effectively as a member of a team while maintaining positive workplace relationships in Ranching activities.
3. Apply workplace health, safety, hygiene, and sanitation practices during Ranching.
4. Apply Livestock Nutrition and Management.
5. Apply Pasture Management techniques and Grazing systems.
6. Apply the methods of Livestock Breeding and Reproductive Management.
7. Apply the concept of Livestock Health Management.
8. Carry out utilization and maintenance of Ranch Equipment and Infrastructure.
9. Apply the procedures for Livestock Production Records and Performance Monitoring.

10. Apply the concept of Animal Welfare and Quality Assurance.
11. Adopt the processes of Ranch Operations and Supervision



NATIONAL SKILLS QUALIFICATION (NSQ) TABLE

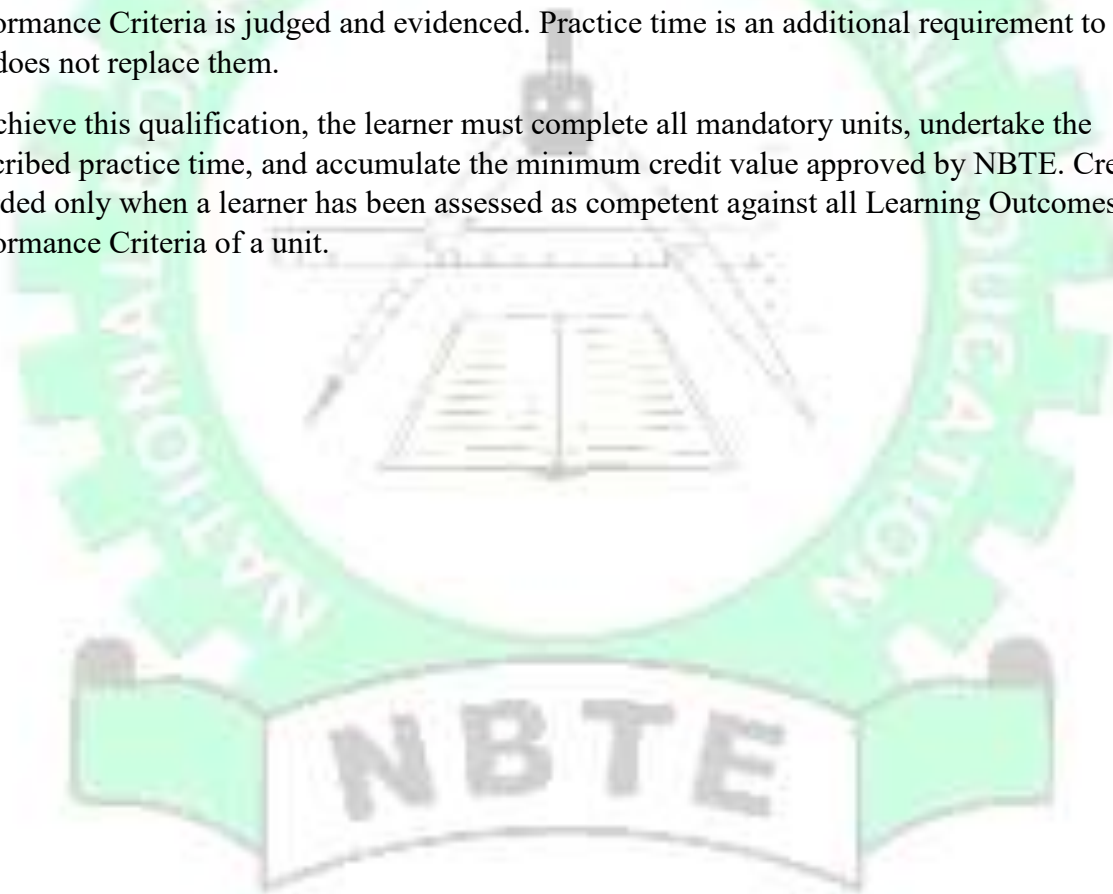
Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours	Practice (workplace) Hours	Remark
1.	AGR/RAN/001/L3	Communication in the Ranching Workplace	3	30	80	Mandatory
2.	AGR/RAN/002/L3	Teamwork in the Ranching Workplace	3	30	80	Mandatory
3.	AGR/RAN/003/L3	Workplace Health, Safety and Hygiene	3	30	80	Mandatory
4.	AGR/RAN/004/L3	Livestock Nutrition Management	4	40	120	Mandatory
5.	AGR/RAN/005/L3	Pasture and Grazing Management	4	40	160	Mandatory
6.	AGR/RAN/006/L3	Livestock Breeding and Reproductive Management	4	40	160	Mandatory
7.	AGR/RAN/007/L3	Livestock Health Management	4	40	160	Mandatory
8.	AGR/RAN/008/L3	Ranch Equipment and Infrastructure Maintenance	4	40	120	Mandatory
9.	AGR/RAN/009/L3	Livestock Production Records and Performance Monitoring	3	30	90	Mandatory
10.	AGR/RAN/010/L3	Animal Welfare and Quality Assurance	4	40	120	Mandatory
11.	AGR/RAN/011/L3	Ranch Operations and Supervision	4	40	120	Mandatory
12.	AGR/RAN/012/L3	Basic ICT Application for Ranch Operations	4	40	120	Mandatory
TOTAL			44	440	1410	

QUALIFICATION STRUCTURE

This qualification comprises a total of twelve (12) Mandatory Units, with a credit value of 44 and 440 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 unit's content.
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 Vocational 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.

UNIT 001: COMMUNICATION IN THE RANCHING WORKPLACE

Unit Reference Number: AGR/RAN/001/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice time: 80 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills needed to communicate effectively with stakeholders involved in Ranching.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in real workplace environment where learning and human development are carried out.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 001: Communication in the Ranching Workplace

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO 1: <i>Discuss advanced workplace communication principles.</i>	1.1	Explain the principles of effective workplace communication.									
	1.2	Differentiate formal and informal communication channels.									
	1.3	Discuss communication ethics									
	1.4	Discuss confidentiality in workplace.									
	1.5	Describe the role of communication in organizational performance.									
LO 2: <i>Coordinate workplace communication.</i>	2.1	Communicate work instructions clearly to team members.									
	2.2	Conduct workplace briefings and meetings.									
	2.3	Maintain effective communication with internal and external stakeholders.									
LO 3: <i>Prepare workplace reports and documentation.</i>	3.1	Prepare operational reports accurately.									
	3.2	Maintain workplace records and documentation.									
	3.3	Present information using appropriate communication tools.									
	3.4	Verify the accuracy of workplace reports before submission.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

UNIT 002: TEAMWORK IN THE RANCHING WORKPLACE

Unit Reference Number: AGR/RAN/002/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 80 Hours

Unit Purpose: This unit equips learners with the skills and knowledge required to lead, coordinate, and improve teamwork to achieve efficient and safe Ranching.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in real workplace environment where learning and human development are carried out.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 002: Teamwork in the Ranching Workplace

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain leadership and supervision principles.</i>	1.1	Discuss leadership within the workplace		
	1.2	Explain the concept of supervision.		
	1.3	Identify leadership styles used in the workplace.		
	1.4	Explain the roles of a team leader.		
	1.5	Describe the importance of effective supervision.		
LO 2: <i>Manage workplace relationships.</i>	2.1	Assist in resolving workplace conflicts fairly.		
	2.2	Motivate team members to achieve organizational goals.		
	2.3	Promote teamwork and collaboration.		
	2.4	Maintain discipline according to organizational procedures.		
LO 3: <i>Evaluate team performance.</i>	3.1	Assess individual and team performance.		
	3.2	Identify training and development needs.		
	3.3	Recommend performance improvement measures.		
	3.4	Prepare team performance reports.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

UNIT 003: WORKPLACE HEALTH, SAFETY AND HYGIENE

Unit Reference Number: AGR/RAN/003/L3

NSQ Level: 3

Credit Value: 3

Guided Learning Hours: 30

Practice Time: 80 Hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills required to implement, monitor, and promote health, safety, and environmental (HSE) practices in Ranching.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in a real workplace environment where learning and human development are carried out.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 003: Workplace Health, Safety and Hygiene

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain health, safety and biosecurity management systems.</i>	1.1	Explain the principles of occupational health and safety.		
	1.2	Identify hazards associated with ranch operations.		
	1.3	Explain biosecurity regulations and standards.		
	1.4	Describe the importance of risk assessment.		
	1.5	Describe emergency preparedness in ranch management.		
LO 2: <i>Carry out workplace health and safety management procedures.</i>	2.1	Conduct routine workplace safety inspections.		
	2.2	Supervise the correct use of Personal Protective Equipment (PPE).		
	2.3	Carry out hazard control measures according to standard operating procedures.		
	2.4	Report workplace accidents, incidents and near misses.		
LO 3: <i>Manage ranch biosecurity programmes.</i>	3.1	Implement access control procedures for livestock and visitors.		
	3.2	Supervise cleaning and disinfection of livestock facilities, equipment and vehicles.		
	3.3	Carry out quarantine of a newly introduced animals.		
	3.4	Isolate diseased animals from healthy ones.		
	3.5	Manage waste disposal in accordance with biosecurity protocols.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 004: LIVESTOCK NUTRITION MANAGEMENT

Unit Reference Number: AGR/RAN/004/L3

NSQ Level: 3

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 on livestock nutrition management in Ranching.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in a real workplace environment where learning and human development are carried out.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 004: Livestock Nutrition Management

LEARNING OUTCOME (LO) The learner will:		PERFORMANCE CRITERIA The learner can:	Evidence Type	Evidence Ref. Page No.
LO 1: <i>Explain livestock nutrition management principles.</i>	1.1	Explain the principles of livestock nutrition management.		
	1.2	Determine the nutrient requirements of different classes of livestock.		
	1.3	Identify factors affecting feed quality and utilization.		
	1.4	Explain the importance of balanced ration formulation in ranch production.		
LO 2: <i>Manage livestock feeding programmes.</i>	2.1	Develop feeding schedules for different classes of livestock.		
	2.2	Allocate feed according to production requirements.		
	2.3	Supervise feed preparation.		
	2.4	Carry out feed distributions.		
	2.5	Monitor feed intake and feeding efficiency.		
LO 3: <i>Manage feed resources and quality.</i>	3.1	Determine the quality of feed resources before use.		
	3.2	Carry out proper storage of feed materials.		
	3.3	Implement measures to prevent feed spoilage and contamination.		
	3.4	Coordinate feed inventory and stock control.		
LO 4: <i>Monitor livestock nutritional performance.</i>	4.1	Assess livestock body condition and growth performance.		
	4.2	Identify nutritional deficiencies and feeding problems.		
	4.3	Monitor livestock nutrition and feeding records.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 005: PASTURE AND GRAZING MANAGEMENT

Unit Reference Number: AGR/RAN/005/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice Time: 160 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills on pasture and grazing management.

Unit assessment requirements/ evidence requirements:

Assessment must be conducted in a real workplace environment where learning and human development occur.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 005: Pasture and Grazing Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Discuss pasture and grazing management principles.</i>	1.1	Discuss the principles of pasture and grazing management.		
	1.2	Determine factors affecting pasture productivity.		
	1.3	Differentiate between grazing systems used in ranching.		
	1.4	Explain the importance of sustainable pasture management.		
LO 2: <i>Manage pasture establishment and improvement programmes.</i>	2.1	Assess pasture condition.		
	2.2	Assess forage availability.		
	2.3	Carry out land preparation and pasture establishment.		
	2.4	Implement pasture improvement practices.		
	2.5	Carry out weed, pest and disease control measures in pasture fields.		
LO 3: <i>Implement grazing management programmes.</i>	3.1	Follow grazing schedules for livestock.		
	3.2	Allocate grazing paddocks according to carrying capacity.		
	3.3	Carry out rotational grazing practices.		
	3.4	Monitor pasture utilization to prevent overgrazing.		
	3.5	Carry out forage conservation practices.		
LO 4: <i>Monitor pasture performance and maintain records.</i>	4.1	Evaluate pasture productivity.		
	4.2	Maintain grazing records.		
	4.3	Assess grazing efficiency.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 006: LIVESTOCK BREEDING AND REPRODUCTIVE MANAGEMENT

Unit Reference Number: AGR/RAN/006/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice Time: 160 Hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills on livestock breeding and reproductive management on a Ranch.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in a real workplace environment where learning and human development are carried out.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 006: Livestock Breeding and Reproductive Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Carry out livestock breeding programmes.</i>	1.1	Select breeding stock based on production and breeding objectives.		
	1.2	Develop breeding schedules according to ranch breeding plans.		
	1.3	Carry out breeding activities using approved breeding methods.		
	1.4	Monitor breeding performance and conception rates.		
LO 2: <i>Manage reproductive activities.</i>	2.1	Detect and record oestrus in breeding females.		
	2.2	Supervise natural mating		
	2.3	Carryout artificial insemination procedures.		
	2.4	Monitor pregnancy and provide appropriate care for pregnant animals.		
	2.5	Supervise parturition and immediate post-partum care according to established procedures.		
LO 3: <i>Monitor breeding performance and maintain reproductive records.</i>	3.1	Maintain reproductive records accurately.		
	3.2	Assess reproductive performance indicators.		
	3.3	Identify reproductive problems		
	3.4	Recommend corrective measures.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:

Unit 007: Livestock Health Management

Unit Reference Number: AGR/RAN/007/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice Time: 160 Hours

Unit Purpose: This unit is designed to equip learners with the knowledge and skills on livestock health management.

Unit assessment requirements/ evidence requirements:

Assessment must be conducted in a real workplace environment where learning and human development occur.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

Unit 007: Livestock Health Management

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type					Evidence Ref. Page No.			
The learner will:		The learner can:									
LO 1: <i>Implement livestock health management programmes.</i>	1.1	Develop routine livestock health monitoring schedules.									
	1.2	Supervise vaccination, deworming, and parasite control programmes.									
	1.3	Monitor livestock for signs of disease, injury, or abnormal behaviour.									
	1.4	Coordinate isolation and treatment of sick animals according to ranch procedures.									
LO 2: <i>Supervise disease prevention and control measures.</i>	2.1	Implement ranch biosecurity and sanitation measures.									
	2.2	Supervise cleaning and disinfection of livestock housing and equipment.									
	2.3	Monitor disease outbreaks and initiate appropriate control measures.									
	2.4	Ensure safe disposal of animal carcasses and contaminated materials in accordance with established procedures.									
LO 3: <i>Monitor breeding performance and maintain reproductive records.</i>	3.1	Maintain livestock health, treatment, and vaccination records accurately.									
	3.2	Evaluate the effectiveness of disease prevention and control programmes.									
	3.3	Prepare livestock health reports and recommend corrective actions.									
	3.4	Review livestock health management practices for continuous improvement.									

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 008: RANCH EQUIPMENT AND INFRASTRUCTURE MAINTENANCE

Unit Reference Number: AGR/RAN/008/L3

NSQ Level: 3

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 of ranch equipment and infrastructure maintenance.

Unit assessment requirements/ evidence requirements:

Assessment must be conducted in a real workplace environment where learning and human development occur.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 008: Ranch Equipment and Infrastructure Maintenance

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Carry out ranch equipment and infrastructure maintenance principles.</i>	1.1	Carry out preventive and curative maintenance.		
	1.2	Carry out routine maintenance of ranch equipment and infrastructure.		
	1.3	Explain maintenance schedules and standard operating procedures.		
LO 2: <i>Monitor routine maintenance of ranch equipment.</i>	2.1	Inspect ranch equipment before and after operation.		
	2.2	Carry out cleaning and servicing of ranch equipment.		
	2.3	Replace worn or damaged parts according to maintenance procedures.		
	2.4	Check equipment functionality after maintenance.		
LO 3: <i>Maintain ranch infrastructure.</i>	3.1	Inspect fences, gates, livestock pens, water systems, and access roads.		
	3.2	Coordinate repair of damaged ranch facilities.		
	3.3	Supervise water supply and drainage systems.		
	3.4	Maintain a safe and functional ranch environment.		
LO 4: <i>Carry out maintenance activities and maintain records.</i>	4.1	Prepare equipment and infrastructure maintenance schedules.		
	4.2	Maintain maintenance and repair records accurately.		
	4.3	Report equipment failures and infrastructure defects promptly.		
	4.4	Assess maintenance activities.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 009: LIVESTOCK PRODUCTION RECORDS AND PERFORMANCE MONITORING

Unit Reference Number: AGR/RAN/009/L3

NSQ Level: 3

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 for livestock production records and performance monitoring.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in real workplace environment where learning and human development are carried out.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 009: Livestock Production Records and Performance Monitoring

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain livestock production records and performance monitoring.</i>	1.1	Explain the importance of livestock production records in ranch management.		
	1.2	Identify different types of production and performance records.		
	1.3	Explain key livestock performance indicators.		
	1.4	Describe the role of production records in decision-making and planning.		
LO 2: <i>Maintain livestock production records.</i>	2.1	Record livestock inventory.		
	2.2	Maintain feeding, breeding, and health records accurately.		
	2.3	Verify the accuracy and completeness of production records.		
	2.4	Update production records according to ranch procedures.		
LO 3: <i>Monitor livestock performance.</i>	3.1	Monitor growth rate, body condition, and weight gain of livestock.		
	3.2	Assess reproductive and production performance indicators.		
	3.3	Compare actual production performance with established targets.		
	3.4	Identify production constraints affecting livestock performance.		
LO 4: <i>Analyse production data and prepare reports.</i>	4.1	Compile livestock production data for analysis.		
	4.2	Prepare livestock performance reports.		
	4.3	Recommend corrective actions based on production records and performance trends.		
	4.4	Present production reports to support ranch management		

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

Learner's Signature:

Date:

Assessor's Signature:

Date:

IQA Signature (if sampled):

Date:

EQA Signature (if sampled):

Date:



UNIT 010: ANIMAL WELFARE AND QUALITY ASSURANCE

Unit Reference Number: AGR/RAN/010/L3

NSQ Level: 3

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 of animal welfare and quality assurance.

Unit assessment requirements/ evidence requirements:

Assessment must be carried out in a real workplace environment where learning and human development are carried out.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Personal statement/Learning Journal (PS/LJ)
3. Questions and Answers (QA)
4. Witness Testimony (WT)
5. Assignment (ASS)
6. Work Products (WP)
7. Recognition of prior learning (RPL)

(This depends on the Trade Areas to be assessed)

Unit 010: Animal Welfare and Quality Assurance

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain animal welfare and quality assurance principles.</i>	1.1	Explain the principles of animal welfare.		
	1.2	Explain the principles quality assurance.		
	1.3	Explain national standards for animal welfare.		
	1.4	Explain industry standards for animal welfare.		
	1.5	Explain the relationship between animal welfare, product quality, and food safety.		
	1.6	Describe the importance of quality assurance in ranch operations.		
LO 2: <i>Implement animal welfare programmes.</i>	2.1	Carry out humane handling and restraint of livestock.		
	2.2	Monitor the provision of adequate feed, water, shelter, and comfort for livestock.		
	2.3	Monitor livestock for signs of ill health		
	2.4	Implement corrective actions to improve animal welfare.		
LO 3: <i>Apply quality assurance procedures in ranch operations.</i>	3.1	Monitor compliance with standard operating procedures (SOPs).		
	3.2	Inspect ranch operations for compliance with quality standards.		
	3.3	Carry out cleaning and sanitation of livestock facilities and equipment.		
	3.4	Implement corrective actions to address quality non-conformities.		
LO 4: <i>Monitor animal welfare and quality assurance systems.</i>	4.1	Maintain animal welfare and quality assurance records.		
	4.2	Conduct routine inspections.		
	4.3	Conduct product quality checks.		
	4.4	Prepare animal welfare and quality		

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
		assurance reports.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 011: RANCH OPERATIONS AND SUPERVISION

Unit Reference Number: AGR/RAN/011/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice Time: 120 Hours

Unit Purpose: This unit is designed to equip the learners with the knowledge and skills on Ranch operations and Supervision.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development are carried out.

Simulation is not allowed in this unit and level.

Assessment methods to be used may include:

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

Unit 011: Ranch Operations and Supervision

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. Page No.
The learner will:		The learner can:		
LO 1: <i>Explain ranch operations supervision principles.</i>	1.1	Discuss the principles of ranch operations supervision.		
	1.2	Explain the roles of a ranch supervisor.		
	1.3	Explain the importance of work planning.		
	1.4	Carry out resource allocation.		
	1.5	Describe the importance of effective leadership in ranch operations.		
LO 2: <i>Supervise daily ranch operations.</i>	2.1	Prepare daily work plans.		
	2.2	Assign tasks to workers.		
	2.3	Coordinate livestock production activities according to operational schedules.		
	2.4	Monitor the use of equipment and materials during ranch operations.		
	2.5	Ensure compliance with standard operating procedures (SOPs) during ranch activities.		
LO 3: <i>Monitor workforce performance and operational efficiency.</i>	3.1	Monitor co-workers' performance.		
	3.2	Provide guidance and technical support to ranch co-workers.		
	3.3	Monitor operational progress.		
	3.4	Ensure the efficient utilization of ranch resources.		
LO 4: <i>Prepare operational reports and improve ranch performance.</i>	4.1	Maintain daily operational records and reports.		
	4.2	Ensure ranch operational performance against established targets.		
	4.3	Suggest corrective actions to improve productivity.		
	4.4	Prepare and submit operational performance reports to management.		

Learner's Signature:	Date:
Assessor's Signature:	Date:
IQA Signature (if sampled):	Date:
EQA Signature (if sampled):	Date:



UNIT 012: BASIC ICT APPLICATION FOR RANCH OPERATIONS

Unit Reference Number: AGR/RAN/012/L3

NSQ Level: 3

Credit Value: 4

Guided Learning Hours: 40

Practice Time: 120 Hours

Unit Purpose: This unit is designed to equip the learners with the knowledge and skills of basic Information and Communication Technology (ICT) tools in supporting routine ranch operations.

Unit assessment requirements/evidence requirements:

Assessment must be carried out in real workplace environment in which learning and human development is carried out

Simulation is not allowed in this unit and level.

Assessment methods to be used may include:

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

Unit 012: Basic ICT Application for Ranch Operations

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type	Evidence Ref. No.	Page No.
The learner will:		The learner can:			
LO 1: <i>Operate ICT devices used in ranch operations.</i>	1.1	Identify common ICT devices used on a ranch.			
	1.2	Switch ICT devices on and off correctly.			
	1.3	Connect devices to power safely.			
	1.4	Operate basic device keys.			
	1.5	Maintain ICT devices properly.			
LO 2: <i>Use digital devices in communication for ranch activities.</i>	2.1	Make voice calls using a mobile phone.			
	2.2	Send text messages.			
	2.3	Use social media for communication.			
	2.4	Share location using mobile applications.			
	2.5	Observe communication etiquette.			
	2.6	Operate drones in tracking animal's location			
LO 3: <i>Maintain basic digital records for ranch operations.</i>	3.1	Create digital livestock records.			
	3.2	Record feeding activities.			
	3.3	Record animal health information.			
	3.4	Save digital files appropriately.			
	3.5	Retrieve stored information.			
	3.6	Record automated weather station readings			
LO 4: <i>Access online information relevant to ranch management.</i>	4.1	Connect to the internet.			
	4.2	Search for livestock information online.			
	4.3	Access weather information.			
	4.4	Observe internet safety practices.			

LEARNING OUTCOME (LO)		PERFORMANCE CRITERIA	Evidence Type		Evidence Ref. No.	Page No.
The learner will:		The learner can:				
LO 5: <i>Apply ICT tools in precision livestock feeding and livestock marketing.</i>	5.1	Use mobile applications to estimate livestock feed requirements.				
	5.2	Record daily feed intake electronically.				
	5.3	Measure livestock performance electronically.				
	5.4	Capture and share digital images of livestock for marketing.				
	5.5	Advertise livestock and livestock products using digital platforms.				
	5.6	Identify individual animal movement using digital tools.				
	5.7	Maintain digital records of livestock sales and customer information.				
LO 6: Apply ICT tools in pasture management and productivity.	6.1	Identify ICT tools in pasture management.				
	6.2	Apply ICT tools in pasture management				
	6.3	Capture digital images of pasture conditions.				
	6.4	Record pasture growth and grazing information electronically.				
	6.5	Determine pasture productivity using simple digital tools.				
	6.6	Prepare and share electronic pasture monitoring report.				

LEARNER'S SIGNATURE:**DATE:**

Assessors Signature:

Date:

IQAM Signature (if sampled)

Date:

EQAM SIGNATURE (IF SAMPLED)

DATE:



LIST OF MINIMUM EQUIPMENT LEVEL 1

S/N	Equipment	Minimum Quantity	Unit(s)	Purpose/Use
1.	Cattle crush (handling chute)	1	Basic Livestock Identification and Handling	Safe restraint of livestock
2.	Cattle race	1	Basic Livestock Identification and Handling	Direct livestock movement
3.	Livestock holding pen	2	Introduction to Ranching, Livestock Handling	Holding animals during routine operations
4.	Water trough	4	Feed Resources and Feeding Practices	Supplying clean drinking water
5.	Feed trough	4	Feed Resources and Feeding Practices	Feeding livestock
6.	Wheelbarrow	4	Ranch Sanitation and Hygiene	Transporting feed and manure
7.	Shovel	6	Ranch Sanitation and Hygiene	Removing manure and waste
8.	Spade	4	Ranch Sanitation	Digging and cleaning
9.	Rake	4	Ranch Sanitation	Collecting waste and debris
10.	Stable broom	6	Ranch Sanitation	Cleaning livestock houses
11.	Manure fork	4	Ranch Sanitation	Handling manure
12.	Feed scoop	6	Feed Resources	Measuring feed
13.	Feed buckets	10	Feed Resources	Carrying feed
14.	Water buckets	10	Feed Resources	Carrying water
15.	Livestock weighing scale	1	Livestock Identification	Determining animal weight
16.	Rope halters	10	Livestock Handling	Restraining livestock
17.	Nose lead (for cattle)	2	Livestock Handling	Controlling cattle
18.	Ear tag applicator	2	Livestock Identification	Applying identification tags
19.	Ear tags	100	Livestock Identification	Animal identification
20.	Marker crayons/paint sticks	10	Livestock Identification	Temporary animal marking
21.	First aid box	2	Workplace Health and Safety	Emergency treatment
22.	Fire extinguisher	4	Workplace Health and Safety	Fire control

23.	Safety boots	20 pairs	Workplace Health and Safety	Foot protection
24.	Overalls	20	Workplace Health and Safety	Protective clothing
25.	Hand gloves	20 pairs	Workplace Health and Safety	Hand protection
26.	Face masks	20	Workplace Health and Safety	Protection against dust and contaminants
27.	Safety helmets	20	Workplace Health and Safety	Head protection
28.	Reflective safety vest	20	Workplace Health and Safety	Worker visibility
29.	Handwashing station	2	Workplace Hygiene	Personal hygiene
30.	Soap dispensers	4	Workplace Hygiene	Handwashing
31.	Footbath (disinfection tray)	2	Ranch Biosecurity	Disease prevention
32.	Knapsack sprayer	2	Ranch Sanitation	Applying disinfectants
33.	Disinfectant containers	4	Ranch Sanitation	Storage of disinfectants
34.	Waste bins with lids	6	Ranch Sanitation	Waste collection
35.	Mobile phones	4	Communication	Workplace communication
36.	Two-way radios	4	Communication	Field communication
37.	Notice board	1	Communication	Displaying work instructions
38.	Attendance register	2	Communication/Teamwork	Attendance records
39.	Record books	10	All Practical Units	Recording daily activities
40.	Clipboards	10	All Practical Units	Field record keeping
41.	Measuring tape	4	Ranch Operations	Measuring facilities and distances
42.	Torch/Flashlight	6	Ranch Operations	Night inspections
43.	Feed storage bins	4	Feed Resources	Proper feed storage
44.	Tarpaulin sheets	4	Feed Storage	Covering feed materials
45.	Livestock grooming brushes	6	Livestock Handling	Animal grooming
46.	Water hose	2	Ranch Sanitation	Cleaning facilities
47.	Pressure washer (optional)	1	Ranch Sanitation	Efficient cleaning
48.	Veterinary thermometer	2	Livestock Observation	Monitoring animal health

49.	Animal restraint ropes	10	Livestock Handling	Safe restraint
50.	Demonstration livestock (cattle, sheep, goats or poultry)	As available	All Practical Units	Practical training and demonstrations

LIST OF MINIMUM EQUIPMENT LEVEL 2

S/N	Equipment	Minimum Quantity	Unit(s)	Purpose/Use
1.	Personal Protective Equipment (PPE) set (boots, overalls, gloves, helmet, goggles)	20 sets	Health, Safety and Biosecurity	Personal protection during ranch operations
2.	First aid box	2	Health, Safety and Biosecurity	Emergency first aid
3.	Fire extinguisher	4	Health, Safety and Biosecurity	Fire prevention and response
4.	Footbath (disinfection tray)	2	Health, Safety and Biosecurity	Biosecurity at livestock entry points
5.	Knapsack sprayer	2	Health, Safety and Biosecurity	Application of disinfectants
6.	High-pressure washer	1	Health, Safety and Biosecurity	Cleaning livestock facilities and equipment
7.	Disinfectant containers	4	Health, Safety and Biosecurity	Storage and application of disinfectants
8.	Quarantine pen	1	Health, Safety and Biosecurity	Isolation of sick or newly introduced animals
9.	Carcass disposal pit/incinerator	1	Health, Safety and Biosecurity	Safe disposal of animal carcasses
10.	Feed mixer	1	Livestock Nutrition and Feeding	Mixing feed ingredients
11.	Feed grinder/chopper	1	Livestock Nutrition and Feeding	Processing feed materials
12.	Digital weighing scale	2	Livestock Nutrition and Feeding	Accurate feed measurement
13.	Feed troughs	6	Livestock Nutrition and Feeding	Feeding livestock

14.	Water troughs	6	Livestock Nutrition and Feeding	Water supply
15.	Feed storage bins/silos	4	Livestock Nutrition and Feeding	Feed storage
16.	Feed scoops	8	Livestock Nutrition and Feeding	Measuring feed
17.	Feed moisture meter	1	Livestock Nutrition and Feeding	Assessing feed quality
18.	Wheelbarrows	4	Livestock Nutrition and Feeding	Feed transportation
19.	Pasture seed drill	1	Pasture Establishment and Management	Planting pasture seeds
20.	Grass seed broadcaster	2	Pasture Establishment and Management	Seed broadcasting
21.	Slashers	6	Pasture Establishment and Management	Pasture maintenance
22.	Hoes	10	Pasture Establishment and Management	Land preparation
23.	Cutlasses	10	Pasture Establishment and Management	Clearing vegetation
24.	Knapsack sprayers	4	Pasture Establishment and Management	Weed control
25.	Soil auger	2	Pasture Establishment and Management	Soil sampling
26.	Measuring tape	4	Pasture Establishment and Management	Plot measurement
27.	Veterinary thermometer	4	Animal Health and Welfare	Animal health monitoring
28.	Stethoscope	2	Animal Health and Welfare	Health examination
29.	Livestock crush	1	Animal Health and Welfare	Animal restraint
30.	Drenching gun	2	Animal Health	Deworming

			and Welfare	livestock
31.	Syringes and needles	20 sets	Animal Health and Welfare	Vaccination and treatment
32.	Vaccine cooler box	2	Animal Health and Welfare	Vaccine storage during field work
33.	Animal treatment kit	2	Animal Health and Welfare	Basic animal healthcare
34.	Livestock weighing scale	Assorted	Animal Health and Welfare	Monitoring animal growth
35.	Two-wheel tractor/Power tiller	1	Basic Ranch Equipment Operation	Basic ranch field operations
36.	Water pump	1	Basic Ranch Equipment Operation	Water supply
37.	Portable generator	1	Basic Ranch Equipment Operation	Power supply
38.	Tool box with maintenance tools	2	Basic Ranch Equipment Operation	Equipment maintenance
39.	Grease gun	2	Basic Ranch Equipment Operation	Equipment lubrication
40.	Air compressor	1	Basic Ranch Equipment Operation	Equipment servicing
41.	Ear tag applicator	2	Livestock Identification and Record Keeping	Animal identification
42.	Ear tags	200	Livestock Identification and Record Keeping	Permanent identification
43.	Branding iron	2	Livestock Identification and Record Keeping	Livestock branding
44.	Tattoo pliers	2	Livestock Identification and Record Keeping	Animal identification
45.	Electronic RFID reader (where available)	1	Livestock Identification and Record Keeping	Electronic identification
46.	Computer with livestock record software	2	Livestock Identification and Record Keeping	Digital record keeping
47.	Printer	1	Livestock	Printing reports

			Identification and Record Keeping	
48.	Record books/registers	20	Livestock Identification and Record Keeping	Manual record keeping
49.	Pregnancy detection kit	1	Breeding and Reproductive Management	Pregnancy diagnosis
50.	Artificial insemination (AI) demonstration kit	1	Breeding and Reproductive Management	Demonstration of AI techniques
51.	Livestock breeding crate	1	Breeding and Reproductive Management	Safe breeding management
52.	Heat detection aids	4	Breeding and Reproductive Management	Oestrus detection
53.	Calving/kidding/lambing assistance kit	2	Breeding and Reproductive Management	Assisting animal parturition
54.	Breeding record register	10	Breeding and Reproductive Management	Recording breeding activities
55.	Demonstration livestock (breeding males and females)	As available	Breeding and Reproductive Management	Practical training

LIST OF MINIMUM EQUIPMENT LEVEL 3

S/N	Equipment	Minimum Quantity	Unit(s)	Purpose/Use
1.	Advanced Personal Protective Equipment (PPE) set	20 sets	Health, Safety and Biosecurity Management	Worker protection during supervisory operations
2.	First aid cabinet	2	Health, Safety and Biosecurity Management	Emergency medical response
3.	Fire extinguishers	6	Health, Safety and Biosecurity Management	Fire prevention and emergency response
4.	Biosecurity footbath	4	Health, Safety and Biosecurity Management	Disease prevention at entry points
5.	High-pressure washer	2	Health, Safety and Biosecurity Management	Cleaning and disinfection
6.	Knapsack sprayers	4	Health, Safety and Biosecurity Management	Disinfection and sanitation
7.	Quarantine pens	2	Health, Safety and Biosecurity Management	Isolation of sick or new animals
8.	Biosecurity warning signs	10	Health, Safety and Biosecurity Management	Access control and awareness
9.	Feed mixer	1	Livestock Nutrition Management	Feed formulation
10.	Feed grinder/chopper	1	Livestock Nutrition Management	Feed processing
11.	Feed weighing scale (digital)	2	Livestock Nutrition Management	Accurate feed measurement
12.	Feed moisture meter	1	Livestock Nutrition Management	Feed quality assessment
13.	Feed storage silos/bins	4	Livestock Nutrition Management	Feed storage
14.	Feed sampling probe	2	Livestock Nutrition Management	Feed quality inspection
15.	Pasture seed drill	1	Pasture and Grazing Management	Pasture establishment
16.	Fertilizer Spreader	1	Pasture and Grazing Management	Fertilizer application
17.	Brush cutter	2	Pasture and Grazing Management	Weed and pasture control

18.	Soil auger	2	Pasture and Grazing Management	Soil sampling
19.	Soil pH meter	1	Pasture and Grazing Management	Soil testing
20.	GPS device	2	Pasture and Grazing Management	Grazing area mapping
21.	Measuring wheel	2	Pasture and Grazing Management	Paddock measurement
22.	Artificial insemination (AI) kit	2	Livestock Breeding and Reproductive Management	Artificial insemination
23.	Semen storage flask (Liquid Nitrogen Container)	1	Livestock Breeding and Reproductive Management	Semen preservation
24.	Pregnancy diagnosis kit	1	Livestock Breeding and Reproductive Management	Pregnancy detection
25.	Heat detection aids	6	Livestock Breeding and Reproductive Management	Oestrus detection
26.	Breeding crate	1	Livestock Breeding and Reproductive Management	Safe breeding management
27.	Veterinary examination kit	2	Livestock Health Management	Clinical examination
28.	Vaccine refrigerator	1	Livestock Health Management	Vaccine storage
29.	Vaccine cooler box	2	Livestock Health Management	Vaccine transportation
30.	Drenching gun	4	Livestock Health Management	Deworming livestock
31.	Syringes and needles	30 sets	Livestock Health Management	Vaccination and treatment
32.	Veterinary stethoscope	2	Livestock Health Management	Health assessment
33.	Livestock crush	2	Livestock Health Management	Safe animal restraint
34.	Tractor	1	Ranch Equipment and Infrastructure Maintenance	Ranch operations
35.	Water pump	2	Ranch Equipment and Infrastructure Maintenance	Water supply
36.	Portable generator	1	Ranch Equipment and Infrastructure Maintenance	Backup power

37.	Air compressor	1	Ranch Equipment and Infrastructure Maintenance	Equipment servicing
38.	Welding machine	1	Ranch Equipment and Infrastructure Maintenance	Infrastructure repair
39.	Tool cabinet with maintenance tools	2	Ranch Equipment and Infrastructure Maintenance	Equipment maintenance
40.	Grease gun	2	Ranch Equipment and Infrastructure Maintenance	Equipment lubrication
41.	Laptop computer	2	Livestock Production Records and Performance Monitoring	Digital data management
42.	Desktop computer	2	Livestock Production Records and Performance Monitoring	Record keeping
43.	Livestock management software	2 licences	Livestock Production Records and Performance Monitoring	Performance monitoring
44.	Printer/Scanner	1	Livestock Production Records and Performance Monitoring	Report preparation
45.	Electronic livestock weighing scale	1	Livestock Production Records and Performance Monitoring	Growth monitoring
46.	RFID tag reader	1	Livestock Production Records and Performance Monitoring	Electronic identification
47.	Animal welfare assessment kit	2	Animal Welfare and Quality Assurance	Welfare inspection
48.	SOP manuals	10	Animal Welfare and Quality Assurance	Quality assurance compliance
49.	Quality inspection checklist boards	10	Animal Welfare and Quality Assurance	Internal quality audits
50.	Infrared thermometer	2	Animal Welfare and Quality Assurance	Welfare monitoring
51.	Digital camera	2	Animal Welfare and Quality Assurance	Documentation of inspections

52.	Two-way radios	8	Ranch Operations Supervision	Communication during supervision
53.	Public address (PA) system	1	Ranch Operations Supervision	Staff meetings and briefings
54.	Projector and screen	1	Ranch Operations Supervision	Staff training and presentations
55.	Whiteboard	2	Ranch Operations Supervision	Work planning
56.	Operational planning board	1	Ranch Operations Supervision	Daily work scheduling
57.	Clipboards	20	Ranch Operations Supervision	Field supervision
58.	Demonstration livestock herd	As available	All Practical Units	Practical demonstrations and supervisory training

LIST OF MINIMUM INFRASTRUCTURE

S/N	Infrastructure	Level 1	Level 2	Level 3	Primary Units Supported
1.	Demonstration Ranch/Farm	✓	✓	✓	All Units
2.	Livestock Pens (Cattle, Sheep, Goats)	✓	✓	✓	Livestock Handling, Animal Welfare
3.	Feed Storage House	✓	✓	✓	Livestock Nutrition and Feeding
4.	Water Supply System (Borehole/Water Tank)	✓	✓	✓	Feeding, Animal Welfare
5.	Loading Ramp	✓	✓	✓	Animal Handling
6.	Crush/Passage Race	—	✓	✓	Animal Health, Handling
7.	Calf/Lamb/Kid Pen	—	✓	✓	Breeding Management
8.	Sick Bay/Animal Clinic	—	✓	✓	Animal Health
9.	Equipment Store	✓	✓	✓	Equipment Operation
10.	Machinery Shed	—	✓	✓	Ranch Equipment
11.	Hay and Silage Storage Facility	—	✓	✓	Livestock Nutrition
12.	Composting Unit	—	✓	✓	Waste Management
13.	Classroom	✓	✓	✓	Theory Units
14.	ICT/Computer Laboratory/E library	—	✓	✓	Record Keeping, Communication
15.	Farm Office	✓	✓	✓	Communication, Supervision
16.	Staff Office	✓	✓	✓	Administration
17.	Weather Observation Point	—	✓	✓	Pasture Management
18.	Demonstration Irrigation	—	✓	✓	Pasture Establishment

	Area				
19.	Livestock Weighing Area	—	✓	✓	Animal Performance Monitoring
20.	Milk Collection Point (where applicable)	—	✓	✓	Livestock Production
21.	Breeding Station/ Artificial Insemination Area	—	—	✓	Breeding & Reproduction
22.	Security Gate and Perimeter Fence	✓	✓	✓	Biosecurity
23.	Toilets and Changing Rooms	✓	✓	✓	Workplace Health & Safety
24.	First Aid Station	✓	✓	✓	Health & Safety
25.	Grazing Paddocks	✓	✓	✓	All units
26.	Slaughtering slab	✓	✓	✓	All units



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