



***NATIONAL SKILLS QUALIFICATIONS/ NATIONAL
OCCUPATIONAL STANDARD***

(NSQ/NOS)

ROOT AND TUBER CROP PRODUCTION

LEVEL 1

SEPTEMBER 2025

NATIONAL SKILLS QUALIFICATION

NSQ LEVEL 1- ROOT AND TUBER CROP PRODUCTION

GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in Root and Tuber Crop Production for the award of National Skills Qualifications (NSQ)/National Occupational Standards (NOS). It is aimed at producing technicians in **ROOT AND TUBER CROP PRODUCTION** NSQ Level 1-with the competencies necessary to support in **ROOT AND TUBER CROP PRODUCTION**.

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

QUALIFICATION PURPOSE

This qualification is targeted at developing competence in call centre operations. This is focused on knowledge, practical skills, communication skills, health and safety, team work and workplace experience.

QUALIFICATION REQUIREMENTS

All Candidates must:

- a. Be at least (14) years of age
- b. Be medically fit
- c. Be mentally fit (Mental alertness)
- d. Have achieved all the Safety and Health mandatory units in the qualification
- e. Be a Nigerian citizen
- f. Other nationals (International passport, residence permit)
- g. Be vetted

QUALIFICATION OBJECTIVES

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

1. Communicate effectively in workplace
2. Work in a team
3. Comply with health and safety requirement

4. Select suitable site for root and tuber crops production.
5. Prepare land for root and tuber crops production
6. Practice nursery and planting of root and tuber crops production.
7. Manage root and tuber crops effectively
8. Procedure for root and tuber crops harvesting
9. Process and store root and tuber crops and products
10. Transport and market root and tuber crops

UNIT ASSESSMENT/EVIDENCE REQUIREMENTS:

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

Assessment Methods to be Used Include:

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

(This depends on the Trade Areas to be assessed)

NSQ LEVEL 1- ROOT AND TUBER CROP PRODUCTION

Mandatory Units

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours
1	AGR/RTP/001/L1	Occupational health and safety	2	20
2	AGR/RTP/002/L1	Communication in Root and Tuber Crop Production	2	20
3	AGR/RTP/003/L1	Team work	4	40
4	AGR/RTP/004/L1	Site selection for root and tuber crops production	4	40
TOTAL			12	120

Optional Units

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours
5	AGR/RTP/005/L1	Land Preparation for root and tuber crops production	3	30
6	AGR/RTP/006/L1	Nursery and planting practices in root and tuber crops production	3	30
7	AGR/RTP/007/L1	Crop management practices in root and tuber crops production	3	30
8	AGR/RTP/008/L1	Root and tuber crops Harvesting and harvesting procedures	3	30
9	AGR/RTP/009/L1	Processing and storage of root and tuber crop products	3	30
10	AGR/RTP/0010/L1	Transport and marketing of root and tuber crop	3	30

TOTAL	18	180
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NATIONAL BOARD FOR TECHNICAL EDUCATION

GENERAL GUIDE

Unit title	Provides a clear explanation of the content of the unit.
Unit number	The unique number assigned to the unit.
Unit reference	The unique reference number given to each unit at qualification approval by NBTE
Unit level	Denotes the level of the unit within the National Skill 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: OCCUPATIONAL HEALTH AND SAFETY

Unit Reference Number: AGR/RTP/001/LI

NSQ Level: 1

Credit Value: 2

Guided Learning Hours: 20 hours

Unit Purpose: This unit is designed to provide the learner with the knowledge and skills required for health and safety in the root and tuber crop production

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 001: Occupational Health and Safety

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know Safe Working Practices and Instructions</i>	1.1	Explain safe work practice and instructions		
	1.2	Identify safety signs and symbol		
	1.3	Use signs and symbols correctly		
	1.4	Carry out safe work practices and instructions		
	1.5	Work in accordance with health and safety best practices		
LO 2: <i>Demonstrate Safety Hazards and Risks</i>	2.1	Identify work environment hazards		
	2.2	State methods to reduce the risk of these hazards		
	2.3	Identify Personal Protection Equipment (PPE) e.g.: <ul style="list-style-type: none"> Goggles, Boot, Gloves etc. 		
	2.4	State methods to resolve an occurring environmental hazard		
LO 3: <i>Possess the Ability to Take Appropriate Actions During Accident/Injury</i>	3.1	Identify basic first aid equipment		
	3.2	State how to maintain hygienic, safe and secure workplace.		
	3.3	State the uses of safety equipment in a workplace as required.		
LO 4: <i>Know Safe Work Habit and Clean Work Environment</i>	4.1	Use safe access and exit routes in the work environment		
	4.2	Dispose all wastes appropriately to designated waste facilities		
	4.3	Explain methods of resource conservation (e.g.: <ul style="list-style-type: none"> Water, Energy etc. 		

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

UNIT 002: COMMUNICATION IN ROOT AND TUBER CROP PRODUCTION

Unit Reference Number: AGR/RTP/R/002/L1

NSQ Level: 2

Credit Value: 2

Guided Learning Hours: 20hours

Unit Purpose: This unit is designed to provide the poultry supervisor with the knowledge and skills required for effective communication in root and tuber crop production

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 002: Communications and Interpersonal Skill

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know the Importance of Good Communication</i>	1.1	State reasons why good communication is important		
	1.2	List ways to communicate effectively		
	1.3	Exhibit patience and a mild demeanour while communicating with colleagues, managers and clients		
	1.4	Speak in a respectful manner		
	1.5	Use respectful body language		
	1.6	Interpret verbal communication accurately		
LO 2: <i>Demonstrate Ability to Document and Follow Documented Instructions</i>	2.1	Read and accurately follow steps in a an instruction manual pertaining to any of the units in this course		
	2.2	Document information in the workplace (e.g.: Receipt, Invoices, Reports)		
	2.3	Document Errors, solution, processes and reports		
LO3 <i>Know Interpersonal Relationship</i>	3.1	Demonstrate polite greetings		
	3.2	Recognise cultural and social differences		
	3.3	Apply positive body language in interactions.		

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

NATIONAL BOARD FOR TECHNICAL EDUCATION

UNIT 003:**TEAMWORK****Unit Reference Number:**

AGR/RTP/R/003/L1

NSQ Level:

1

Credit Value:

2

Guided Learning Hour:

20 hours

Unit Purpose: This unit is designed to provide learners with the knowledge and skills required to develop team spirit and positive working relationship with co-workers.

Unit assessment requirements/ evidence requirements:

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

(This depends on the Trade Areas to be assessed)

Unit 003: Teamwork

Learning Outcome (LO)		Performance Criteria: - (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1 <i>Develop Good Working Relationship with Co-Workers</i>	1.1	Define teamwork		
	1.2	List the importance of teamwork		
	1.3	List the qualities of a team player		
LO 2 <i>Take Responsibility Within the Team</i>	2.1	List own roles and responsibilities within a team.		
	2.2	Perform tasks in line with the team rules and regulations.		
	2.3	Work well in a group.		
LO 3 <i>Comply with Rule of Organization</i>	3.1	Explain code of conduct in work environment		
	3.2	Use organizational code of practice		
	3.3	Work in line with organizational standard.		

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

UNIT 004: SITE SELECTION FOR ROOT AND TUBER CROPS PRODUCTION

Unit Reference Number: AGR/RTP/004/L1

NOS Level: 1

Credit Value: 4

Guided Learning Hours: 40 hours

Unit Purpose: This unit is designed to equip learners with knowledge and skills in selecting a suitable site for root and tuber crops production.

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 004: Site Selection for Root and Tuber Crops Production

Learning Outcome (LO) The learner will:		Performance Criteria:- (PC) The learner can:	Evidence Type	Evidence Ref. Page Number
LO 1: <i>Know Root and Tuber Crop</i>	1.1	Define root and tuber crops		
	1.2	List the types of root and tuber crops		
	1.3	Identify the types of root and tuber crops		
	1.4	Explain benefits of root and tuber crops		
LO 2 <i>Know Soil and Soil Properties</i>	2.1	Define soil		
	2.2	List types of soil		
	2.3	Define types of soil		
	2.4	Identify types of soil		
	2.5	Explain differences in the soil types		
	2.6	Describe the physical characteristics of the soil types		
LO 3 <i>Know Soil and Climate Requirements for Root and Tuber Crops</i>	3.1	Define vegetation area		
	3.2	Define rich vegetation area		
	3.3	Locate a suitable well drained fertile soil		
	3.4	Identify areas with good rainfall pattern		
	3.5	List advantages of good rainfall pattern		
	3.6	Identify areas with abundant sunshine		

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

NATIONAL BOARD FOR TECHNICAL EDUCATION

UNIT 005: LAND PREPARATION FOR ROOT AND TUBER CROPS PRODUCTION

Unit Reference Number: AGR/RTP/R/005/LI

NSQ Level: 1

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills in land preparation for root and tuber crops production

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 005: Land Preparation for Root and Tuber Crops Production

Learning Outcome (LO)		Performance Criteria:- (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know Land Preparation</i>	1.1	Define land preparation		
	1.2	Explain land preparation methods		
	1.3	Carry out land clearing		
	1.4	List equipment used in land preparation		
	1.5	Demonstrate handling of land preparation debris		
LO 2: <i>Know Tillage Operations</i>	2.1	Define land tillage		
	2.2	Identify a suitable location for nursery		
	2.3	Erect the nursery close to a source of water		
	2.4	Prepare a nursery bed for nursery practice		
	2.5	Construct shed for the nursery		
	2.6	Plough the field		
	2.7	Harrow the field		
	2.8	Ridge the field		
LO 3: <i>Know Basic Farm Tools</i>	3.1	Define farm tools		
	3.2	List types of farm tools		
	3.3	Identify various simple farm tools used for land preparation		
	3.4	Differentiate between the simple farm tools used for land preparation.		
	3.5	Carry out simple farm tools maintenance		

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

NATIONAL BOARD FOR TECHNICAL EDUCATION

UNIT 006: NURSERY AND PLANTING PRACTICES IN ROOT AND TUBER CROPS PRODUCTION

Unit Reference Number: AGR/RTP/R/006/L1

NSQ Level: 1

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills of nursery and planting practices in root and tuber crops production.

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 006: Nursery and Planting Practices in Root and Tuber Crops Production

Learning Outcome (LO)		Performance Criteria:- (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know Planting Operation</i>	1.1	Define nursery		
	1.2	Define nursery bed		
	1.3	Select a suitable seeds for planting in the nursery or on the field		
	1.4	Dress the seeds/stem cuttings		
	1.5	Measure and mark the spacing for individual crops in the nursery and on the field		
	1.6	Plant seed/stem cuttings in the nursery		
	1.7	Plant nursed seeds/stem cutting on the field		
	1.8	Use simple irrigation tools		
LO 2 <i>Know Fertilizer and Herbicides Application</i>	2.1	Define fertilizer		
	2.2	List different types of fertilizer		
	2.3	Identify different types of fertilizer		
	2.4	Explain methods of fertilizer application		
	2.5	Define herbicide		
	2.6	List different types of herbicides		
	2.7	Identify different types of herbicides		
	2.8	Explain methods of herbicide application		
	2.9	List different types of sprayers		
LO 3:	3.1	Define irrigation		

Know Irrigation Practices	3.2	State types of irrigation											
	3.3	Explain simple irrigation procedure											
	3.4	List simple irrigation tools											

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

UNIT 007: CROP MANAGEMENT PRACTICES IN ROOT AND TUBER CROPS PRODUCTION

Unit Reference Number: AGR/RTP/R/007/L1

NSQ Level: 1

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills of root and tuber crops management.

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Learning Outcome (LO)		Performance Criteria:- (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know seedlings</i>	1.1	Define seedlings		
	1.2	List types of seedlings		
	1.3	Differentiate between yam seedlings and cassava seedlings		
	1.4	Define thinning		
	1.5	State advantages of thinning		
	1.6	State disadvantages of thinning		
	1.7	Carryout thinning in a nursery bed		
LO 2 <i>Know Fertilizer and Herbicides Application</i>	2.1	Explain fertilizer application		
	2.2	Describe application of fertilizer on the field		
	2.3	List different methods of fertilizer application		
	2.4	Observe herbicide application		
	2.5	Describe application of herbicide on the field		
	2.6	List different methods of herbicide application		
	2.7	Explain the effect of herbicides and fertilizer on the environment		
LO 3	3.1	Explain pest		

Know Pests, Diseases and their Control

3.2	Identify field insect pests									
3.3	Identify damages caused by insect pests									
3.4	Identify damages caused by insect pests									
3.5	Describe pest management strategies									
3.6	Select measures in prevention and control of pests									
3.7	State the economic importance of pests									
3.8	Define disease									
3.9	Identify causative agents of diseases									
3.10	Identify damages caused by diseases									
3.11	Identify different methods of disease control									
3.12	Define weeds control									
3.13	Select measures in prevention and control of weeds									
3.14	Apply safety precautions in the application of insect pests, disease and weeds control chemicals									

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

UNIT 008: ROOT AND TUBER CROPS HARVESTING AND HARVESTING PROCEDURES

Unit Reference Number: AGR/RTP/008/L1

NSQ Level: 1

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills in root and tuber crops harvesting and harvesting procedures.

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 008: Root and Tuber Crops Harvesting and Harvesting Procedures

Learning Outcome (LO)		Performance Criteria:- (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know Maturity Time of Root and Tuber Crops</i>	1.1	Define root and tuber crop maturity		
	1.2	Identify matured Root and tuber crops		
	1.3	State the maturity period of Root and tuber crops		
	1.4	Distinguish between mature and immature root and tuber crops		
LO 2: <i>Know Harvesting and Harvesting Procedures</i>	2.1	Define harvesting		
	2.2	List types of harvesting methods		
	2.3	Identify simple tools used in harvesting root and tuber crops		
	2.4	Operate simple harvesting tools		
	2.5	Hold to air dry before storage		
	2.6	Transport the harvested produce to processing and storage warehouse		
LO 3: <i>Know Post Harvest Loss</i>	3.1	Define post-harvest loss		
	3.2	State causes of post-harvest loss		
	3.3	Explain measures of preventing post-harvest loss		
	3.4	Explain impact of post-harvest loss		
	3.5	Describe the storage of root and tuber crops produce		

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

NATIONAL BOARD FOR TECHNICAL EDUCATION

UNIT 009: PROCESSING AND STORAGE OF ROOT AND TUBER CROP PRODUCTS

Unit Reference Number: AGR//RTP/009/L1

NSQ Level: 1

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills of processing and storage of root and tuber crops and products

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners' work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 009: Processing and Storage of Root and Tuber Crop Products

Learning Outcome (LO)		Performance Criteria:- (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know Root and tuber crops handling and processing</i>	1.1	Define root and tuber crop processing		
	1.2	Describe simple root and tuber crops processing procedures		
	1.3	Define root and tuber crops handling		
	1.4	Differentiate between products of various processed root and tuber crops		
	1.5	Describe packaging of Root and tuber products		
LO 2: <i>Know storage of processed root and tuber products</i>	2.1	Define storage		
	2.2	Describe types of storage techniques		
	2.3	Describe arrangement of root and tuber product in storage facility		
LO 3: <i>Know packaging</i>	3.1	Define root and tuber products packaging		
	3.2	Describe how to package root and tuber products		
	3.3	Define root and tuber crops packaging materials		
	3.4	List types of root and tuber crops packaging materials		

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

UNIT 010: TRANSPORT AND MARKETING OF ROOT AND TUBER CROPS

Unit Reference Number: AGR/RPT/010/L1

NSQ Level: 1

Credit Value: 3hours

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills of transporting and marketing of root and tuber crops

Unit assessment requirements/ evidence requirements:

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

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners' work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 010: Transport and Marketing of Root and Tuber Crops

Learning Outcome (LO)		Performance Criteria:- (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know the transportation of Root and tuber crops</i>	1.1	Identify means of transporting Root and tuber crops		
	1.2	Choose the right means of transporting Root and tuber crops.		
	1.3	Perform loading of Root and tuber crops		
	1.4	Perform offloading of Root and tuber crops.		
LO 2: <i>Know grading/standardization of root and tuber crops</i>	2.1	Sort Root and tuber crops		
	2.2	Weigh Root and tuber crops		
	2.3	Prepare Root and tuber crops for marketing.		
LO 3: <i>Know marketing of Root and tuber crops</i>	3.1	Define root and tuber market		
	3.2	Identify root and tuber aggregators		
	3.3	Identify the middlemen in root and tuber crops marketing		
	3.4	Explain the right time to market root and tuber crops		
	3.5	Identify market for the root and tuber crop products		

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:



***NATIONAL SKILLS QUALIFICATIONS/ NATIONAL
OCCUPATIONAL STANDARD***

(NSQ)

ROOT AND TUBER CROP PRODUCTION

LEVEL 2

SEPTEMBER 2025

NATIONAL SKILLS QUALIFICATION

NSQ LEVEL 2- ROOT AND TUBER CROP PRODUCTION

GENERAL INFORMATION

OVERVIEW

This qualification is designed for individuals who are interested in pursuing a career in Root and Tuber Crop Production for the award of National Skills Qualifications (NSQ)/National Occupational Standards (NOS). It is aimed at producing technicians in **ROOT AND TUBER CROP PRODUCTION** NSQ Level 2-with the competencies necessary to support in **ROOT AND TUBER CROP PRODUCTION**

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

QUALIFICATION PURPOSE

This qualification is aimed at developing competence in Root and Tuber Crops Production for employment, food security and sufficiency

QUALIFICATION REQUIREMENTS

All Candidates must:

- h. Be at least (15) years of age
- i. Be medically fit
- j. Be mentally fit (Mental alertness)
- k. Have achieved all the Safety and Health mandatory units in the qualification
- l. Be a Nigerian citizen
- m. Other nationals (International passport, residence permit)
- n. Be vetted

QUALIFICATION OBJECTIVES

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

1. Communicate effectively in workplace
2. Work in a team
3. Comply with health and safety requirement
4. Select site for root and tuber crops production
5. Prepare land for root and tuber crops production
6. Plant seeds in the nursery and on the field

7. Apply pre-emergence herbicide, basal fertilizer, irrigation when necessary and appropriate planting methods for root and tuber crops
8. Manage crop activities effectively
9. Comprehend the fundamentals and concept of maturity time, signs of maturity
10. Use appropriate harvesting equipment and right harvesting method of root and tuber crops
11. Handle, process, store and market of root and tuber crops and products
12. Transport and market involved in root and tuber crops and products

UNIT ASSESSMENT/EVIDENCE REQUIREMENTS:

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

Assessment Methods to be Used Include:

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

(This depends on the Trade Areas to be assessed)

NATIONAL SKILLS QUALIFICATION
LEVEL 2- ROOT AND TUBER CROP PRODUCTION
Mandatory Units

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours
1	AGR/RTP/001/L2	Work safely on Crop Farm	3	30
2	AGR/RTP/002/L2	Communication in Crop Farm Environment	3	30
3	AGR/RTP/003/L2	Teamwork	2	20
4	AGR/RTP/004/L2	Site selection for Root And Tuber Crops II	4	40
TOTAL			12	120

Optional Units

Unit	Unit Reference Number	Unit Title	Credit Value	Guided Learning Hours
5	AGR/RTP/005/L2	Land Preparation for Root and Tuber Crops Production	4	40
6	AGR/RTP/006/L2	Nursery and planting practices II	4	40
7	AGR/RTP/007/L2	Crop management practices II	4	40
8	AGR/RTP/008/L2	Root and tuber crops Harvesting and harvesting procedures II	4	40
9	AGR/RTP/009/L2	Processing and storage of root and tuber crop products II	4	40
10	AGR/RTP/0010/L2	Transporting and Marketing of Root and tuber crop II	4	40
TOTAL			24	240

GENERAL GUIDE

Unit title	Provides a clear explanation of the content of the unit.
Unit number	The unique number assigned to the unit.
Unit reference	The unique reference number given to each unit at qualification approval by NBTE
Unit level	Denotes the level of the unit within the National Skill 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: WORK SAFELY ON CROP FARM

Unit Reference Number: AGR/RTP/001/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is on the adherence to health and safety precaution and avoidance of environmental hazards associated with working on a crop farm.

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 include:

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Work Product (WP)
6. Recognition of Prior Learning (RPL)
7. Other methods (O t), assignments, case study, essay, project, etc.

(This depends on the Trade Areas to be assessed)

Unit 001: Work safely on a crop farm

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Work Safely on a Crop Farm.</i>	1.1	Explain safe work practices as obtained along the crop production value chain		
	1.2	Identify safety signs and symbols on crop farms		
	1.3	Provide correctly, the safety signs and symbols		
	1.4	Demonstrate safe work practices and instructions on crop farms		
	1.5	Operate in accordance with health and safety practices		
LO 2: <i>Comply with Safety Standards on Crop Farm.</i>	2.1	Identify work environment hazards		
	2.2	State types of hazards and risks associated with crops		
	2.3	State safety standards on crop farms and processing facilities		
	2.4	Use safety tools, materials and equipment in crop processing facilities		
LO 3: <i>Apply Personal Protective Equipment (PPE) in Crop Processing Facilities</i>	3.1	Identify the types of PPEs required for crop processing plants		
	3.2	Select appropriate PPE for crop processing plants		
	3.3	Use PPE		
	3.4	Maintain PPE before or after use		
LO 4: <i>Response to Accidents/Injury in Crop Processing Plants</i>	4.1	Locate first aid facility		
	4.2	Use basic dressing materials		
	4.3	Respond to supervisor given instructions		
	4.4	Report incidences of accident/injury to the appropriate supervisor		
LO 5: <i>Apply Safe Work Habit and Clean Work Environment in Crop Processing Plants</i>	5.1	Use safe access and exit routes in the work environment		
	5.2	Identify appropriate working tools, materials and equipment		
	5.3	Use tools and equipment safely in accordance with the supervisor's instructions		

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
	5.4	Return all tools, equipment and unused materials for appropriate storage		
	5.5	Carry out general housekeeping of work environment		
	5.6	Dispose all wastes appropriately to designated waste facilities		
LO 6: <i>Comply with Standards of Lifting, Loading/Offloading and Stacking Of Materials in Crop Processing Facilities</i>	6.1	Identify lifting and stacking techniques		
	6.2	Demonstrate lifting techniques in loading and offloading of materials without mechanical assistance		
	6.3	Demonstrate correct lifting and loading techniques with mechanical assistance		
	6.4	Stack materials correctly		

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

UNIT 002: COMMUNICATION IN CROP FARM ENVIRONMENT

Unit Reference Number: AGR/RTP/002/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills to communicate effectively in crop farm environment.

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 include:

1. Direct Observation/oral questions (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Work Product (WP)
6. Recognition of Prior Learning (RPL)
7. Other methods (O t), assignments, case study, essay, project, etc.

(This depends on the Trade Areas to be assessed)

Unit 002: Communication in Crop Farms/Environment

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Apply the Use of a Non-Complex Communication System in a Work Environment</i>	1.1	Use a verbal means to pass on necessary information		
	1.2	Use non-verbal means to convey necessary information e.g.: <ul style="list-style-type: none"> • Body language, • Signs 		
	1.3	Interpret symbols and signs appropriately		
LO 2: <i>Source for Information on a Work Environment</i>	2.1	Identify the source of information in the work environment		
	2.2	Relate effectively with the source of information		
	2.3	Use the different information flow systems in a work environment		
	2.4	Use information gathered to avoid challenges in a work situation		
	2.5	Report findings appropriately in accordance with laid down procedures in the work environment i.e.: <ul style="list-style-type: none"> • Cards, • Flip Chart 		
	2.6	Use simple communication gadget like mobile phones and table phones		
LO 3: <i>Apply Various Means of Communication in a Work Environment</i>	3.1	Locate the various communication equipment in the work environment		
	3.2	Use effectively the various communication equipment in a work environment		
	3.3	Pass information effectively to the right personnel		
	3.4	Obey instructions in line with ethics of the work environment		

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

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UNIT 003: TEAMWORK

Unit Reference Number: AGR/RTP/003/L2

NSQ Level: 2

Credit Value: 2

Guided Learning Hours: 20 hours

Unit Purpose: This unit is design to provide the learner with knowledge and skills required to develop team spirit and positive working relationship with colleagues.

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Observation
2. Work Product
3. Professional Discussion
4. Question and Answer

(This depends on the Trade Areas to be assessed)

Unit 003: Teamwork

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type						Evidence Ref. Page Number
The learner will:		The learner can:							
LO 1 <i>Positive Working Relationship with Colleagues</i>	1.1	Identify the need for developing positive working relationship with colleagues							
	1.2	Recognize the importance of relating with other people in a way that makes them feel valued and respected							
	1.3	Assist team members when required.							
	1.4	Report to the appropriate personnel when request for assistance fall outside area of responsibility.							
	1.5	Communicate information to colleagues about individual work that may affect team work.							
LO 2 <i>Take Responsibility Within the Team</i>									
	2.1	Recognize own role and responsibilities within a team							
	2.2	Perform individual tasks in line with the team's rules and regulations.							
	2.3	Participate effectively in teamwork.							
LO 3 <i>Compliance with Policy of Organisation</i>									
	3.1	Explain organizational code of conduct							
	3.2	Work in line with organizational standard							
	3.3	Use organizational code of practice							
	3.4	Adhere strictly to instructions given by the Management							

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled).

Date:

EQA Signature (if sampled).

Date:

UNIT 004:**SITE SELECTION FOR ROOT AND TUBER CROPS II**

Unit Reference Number: AGR/RTP/004/L2

NOS Level: 2

Credit Value: 4

Guided Learning Hours: 40 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills for suitable site selection for root and tuber crops

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 004: Site Selection for Root and Tuber Crops II

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know Root and Tuber Crops</i>	1.1	Discuss root and tuber crops		
	1.2	List types of root and tuber crops		
	1.3	Differentiate between the various types of root and tuber crops		
	1.4	State the major root and tuber crops		
	1.5	Identify the types of root and tuber crops		
	1.6	State the characteristics of root and tuber crops		
	1.7	Describe nutritional benefits of root and tuber crops		
	1.8	Discuss the planting season of root and tuber crops		
	1.9	Explain the economic importance of root and tuber crops		
LO 2: <i>Know Soil and Soil Properties</i>	2.1	Define soil		
	2.2	List types of soil and their properties		
	2.3	Categorize the properties of soil		
	2.4	Explain soil pH		
	2.5	Identify types of soil		
	2.6	Explain differences in the soil types		
	2.7	Describe the physical characteristics of the soil types		
	2.8	Explain soil topography		
	2.9	Describe the effect of soil topography in root and tuber crops production		
LO 3: <i>Know Soil and Climatic Requirements for Root and Tuber Crops</i>	3.1	Define vegetation area		
	3.2	Describe rich vegetation area		
	3.3	Locate a suitable well drained fertile soil		
	3.4	Identify general soil requirements for root and tuber crops production		

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type		Evidence Ref. Page Number
The learner will:		The learner can:			
	3.5	Identify areas with good rainfall pattern			
	3.6	List the advantages of good rainfall pattern			
	3.7	Explain photosynthesis in root and tuber crops production			
	3.8	Describe the role of photosynthesis in root and tuber crops production			

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

UNIT 005: LAND PREPARATION FOR ROOT AND TUBER CROPS PRODUCTION

Unit Reference Number: AGR/RTP/005/L2

NSQ Level: 2

Credit value: 3

Guided learning hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills of land preparation for root and tuber crops production

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 005: Land Preparation for Root and Tuber Crops Production

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1 <i>Know Land Preparation</i>	1.1	Define land preparation		
	1.2	State Merits of land preparation		
	1.3	State Demerits of land preparation		
	1.4	Explain land preparation methods		
	1.5	Carryout manual land preparation		
	1.6	Identify equipment used in land preparation		
	1.7	Demonstrate handling of land preparation debris		
LO 2 <i>Know Tillage and Nursery Operations</i>	2.1	Describe land tillage		
	2.2	Explain types of land tillage		
	2.3	State the importance of land tillage		
	2.4	Prepare a suitable location for nursery bed/shed		
	2.5	Erect the nursery bed/shed close to a source of water		
	2.6	Prepare a nursery bed/shed for nursery practice		
	2.7	Construct nursery bed/shed		
	2.8	Describe the methods of ploughing		
	2.9	Describe the methods of harrowing		
	2.10	Describe the methods of ridging		
LO 3 <i>Know Farm Tools and Implements</i>	3.1	Describe farm tools		
	3.2	List types of farm tools		
	3.3	Describe the roles of farm tools in root and tuber crops production		
	3.4	Identify various simple farm tools used for land preparation		
	3.5	Differentiate between the simple farm tools used for land preparation.		
	3.6	Carry out simple farm tools maintenance		
	3.7	Define farm implement		
	3.8	Describe types of farm implements		

	3.9	Differentiate between farm tools and farm implement												
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Learners Signature:	Date:
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
EQA Signature (if sampled)	Date:

UNIT 006: NURSERY AND PLANTING PRACTICES II

Unit Reference Number: AGR/RTP/006/L2

NOS Level: 2

Credit Value: 3

Guided Learning Hours: 30 hour

Unit Purpose: This unit is designed to equip learner with knowledge and skills required in planting seeds in the nursery and applying pre-emergence herbicide, basal fertilizer, irrigation methods for root and tuber crops

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 006: Nursery and Planting Practices II

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type		Evidence Ref. Page Number
The learner will:		The learner can:			
LO 1 <i>Know Planting and Nursery Operations</i>	1.1	Define nursery			
	1.2	Define nursery bed/shed			
	1.3	Describe the condition for nursery bed/shed establishment			
	1.4	Explain seed/stem consideration			
	1.5	State the factors for seed/stem selection			
	1.6	Describe planting depth			
	1.7	Describe planting spacing			
	1.8	Describe Planting time			
	1.9	Describe ways of planting root and tuber crops			
LO 2 <i>Know Fertilizer and Herbicides</i>	2.1	Define post planting care			
	2.2	Describe methods of caring for plants			
	2.3	Identify types of fertilizer			
	2.4	Define organic and inorganic fertilizer			
	2.5	Differentiate between organic and inorganic fertilizer			
	2.6	Describe methods of fertilizer application			
	2.7	Define herbicide			
	2.8	Define selective herbicide			
	2.9	Define non selective herbicide			
	2.10	Differentiate between selective and non-selective herbicide			
LO 3 <i>Know Irrigation Practices</i>	3.1	Define irrigation			
	3.2	State types of irrigation			
	3.3	Describe methods of irrigation			
	3.4	Explain merits of natural and artificial irrigation			
	3.5	Explain demerits of natural and artificial irrigation			
	3.6	Describe simple irrigation procedure			
	3.7	List simple irrigation tools			

	3.8	Describe the time for irrigation											
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Learners Signature:	Date:
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
EQA Signature (if sampled)	Date:

UNIT 007:**CROP MANAGEMENT PRACTICES II**

Unit Reference Number: AGR/RTP/007/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills of crop management activities

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 007: Crop Management Practices II

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1 <i>Know Seeds or Cutting</i>	1.1	Define seed/cutting		
	1.2	Identify types of seed/cutting		
	1.3	Distinguish between healthy and unhealthy seed/stem cuttings		
	1.4	State factors affecting the health of seed/cutting		
	1.5	Describe thinning		
	1.6	State advantages of thinning		
	1.7	State disadvantages of thinning		
	1.8	Carryout thinning on the field		
	1.9	Differentiate between thinning and pruning		
LO 2 <i>Know Fertilizer and Herbicides Application</i>	2.1	Distinguish between pre-emergence and post emergence herbicides.		
	2.2	Determine the rate of herbicides needed on the field		
	2.3	Distinguish between fertilizer forms		
	2.4	Distinguish between fertilizer types		
	2.5	Determine rate of fertilizer application		
	2.6	Select the methods of fertilizer application to adopt.		
LO 3 <i>Know Pest and Disease Control</i>	3.1	Explain pest and disease management		
	3.2	Describe pest and disease management strategies		
	3.3	Identify field insect pests		
	3.4	Identify damages caused by insect pests		
	3.5	Select measures in prevention and control of pests and diseases		
	3.6	State the economic importance of pests and Diseases		
	3.7	Define weeds control		
	3.8	Select measures in prevention and control of weeds		

	3.9	Apply safety precautions in the application of pest and disease control chemicals												
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Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

UNIT 008: ROOT AND TUBER CROPS HARVESTING AND HARVESTING PROCEDURES II

Unit Reference Number: AGR/RTP/008/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with fundamentals knowledge and skills required for harvesting root and tuber crops.

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 008: Root and Tuber Crops Harvesting and Harvesting Procedures II

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type		Evidence Ref. Page Number
The learner will:		The learner can:			
LO 1 <i>Know Maturity Time of Root and Tuber Crops</i>	1.1	Explain root and tuber crops maturity			
	1.2	Explain physiological changes towards maturity in Root and tuber crops			
	1.3	Enumerate signs of maturity in Root and tuber crops			
	1.4	State the maturity time of Root and tuber crops			
	1.5	Distinguish between mature and immature root and tuber crops			
LO 2 <i>Know Harvesting and Harvesting Procedures</i>	2.1	Explain harvesting time			
	2.2	Describe harvesting methods of Root and tuber crops			
	2.3	List harvesting tools			
	2.4	Operate simple harvesting tools			
	2.5	List types of harvesting methods			
	2.6	Distinguish between manual and mechanical means of harvesting			
	2.7	Enumerate advantages of mechanical means of harvesting			
	2.8	Carryout handling of harvested root and tuber crops produce			
LO 3 <i>Know Post Harvest Loss</i>	3.1	Define post-harvest loss			
	3.2	Classify post- harvest loss			
	3.3	State causes of post -harvest loss			
	3.4	Explain measures of preventing post-harvest loss			
	3.5	Explain impact of post -harvest loss			

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

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UNIT 009: PROCESSING AND STORAGE OF ROOT AND TUBER CROPS PRODUCTS II

Unit Reference Number: AGR/RTP/009/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with fundamental knowledge and skills required to handle, process, store and market root and tuber crops and products

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners' work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 009: Processing and Storage of Root and Tuber Crops Products II

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know Root and Tuber Crops Handling and Processing</i>	1.1	Define root and tuber crops handling		
	1.2	List various procedures in root and tuber crops handling		
	1.3	Explain post-harvest handling requirement		
	1.4	Describe simple root and tuber crops processing procedures		
	1.5	Define root and tuber crops processing		
	1.6	Differentiate between product of processed root and tuber crops		
	1.7	Explain starch fermentation		
	1.8	Explain the economic benefits of starch fermentation		
	1.9	Describe packaging of Root and tuber crop products		
LO 2: <i>Know Storage of Processed Root and Tuber Products</i>	2.1	Enumerate the condition for root and tuber storage		
	2.2	Explain the moisture consideration in processed root and tuber crop products		
	2.3	Describe the optimal moisture content for storage		
	2.4	Explain how to control pest in stored root and tuber crops		
	2.5	Explain the modern storage technique for root and tuber crops product		
	2.6	Describe how to set up a warehouse facility for processed root and tuber products storage		
LO 3: <i>Know Packaging of Root and Tuber Crops Products</i>	3.1	Explain the relevance of packaging in root and tuber crop processing		
	3.2	Describe the benefits of the following: <ul style="list-style-type: none"> • Batch number • Production date • Best before date • Nutritional value 		

	3.3	Carryout root and tuber crops packaging procedures												
	3.4	List the steps involved in root and tuber packaging procedure												

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

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UNIT 010: TRANSPORTING AND MARKETING OF ROOT AND TUBER CROPS II

Unit Reference Number: AGR/RTP/010/L2

NSQ Level: 2

Credit Value: 3

Guided Learning Hours: 30 hours

Unit Purpose: This unit is designed to equip learner with knowledge and skills of transportation and marketing involved in root and tuber crops and products

Unit assessment requirements/evidence requirements

Assessment of this unit must be at a real practical work environment. Simulation is not allowed unless where indicated.

Assessment methods to be used include:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
4. Authentic statement/Witness testimony
5. Personal statement/reflective account.
6. Product of the learners' work.
7. Assignment

(This depends on the Trade Areas to be assessed)

Unit 010: Transporting and Marketing Of Root and Tuber Crops II

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA (PC)	Evidence Type	Evidence Ref. Page Number
The learner will:		The learner can:		
LO 1: <i>Know the Transportation of Root and Tuber Crops</i>	1.1	Describe loading and offloading techniques for root and tuber crops		
	1.2	Identify suitable methods and means of transportation of root and tuber crops and products		
	1.3	Describe the steps involved in loading and offload in root and tuber crops and products		
	1.4	Explain the various steps involved in transportation of root and tuber crops and products		
	1.5	Explain the importance of record keeping in transportation of root and tuber crops and products		
	1.6	Describe how to prevent crushing of root and tuber crops during transportation		
LO 2: <i>Know Grading/ Standardization of Root and Tuber Crops</i>	2.1	Explain how to standardize/grade root and tuber crops/products for National or International markets		
	2.2	Determine the appropriate methods of weighing Root and tuber crops/products for the market		
	2.3	List the criteria used in grading root and tuber crops		
	2.4	Identify the impact of poor grading		
LO 3: <i>Know Marketing of Root and Tuber Crops</i>	3.1	Define root and tuber market		
	3.2	Identify root and tuber aggregators		
	3.3	Identify the middlemen in root and tuber crops products market		

LIST OF PARTICIPANTS FOR PRE-CRITIQUE

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