

NATIONAL SKILLS QUALIFICATION

(NSQ)

***CROP
PRODUCTION
LEVEL 1***

NATIONAL SKILLS QUALIFICATION

QCF LEVEL 1 –CEREAL CROP PRODUCTION

GENERAL INFORMATION

QUALIFICATION PURPOSE

This qualification is aimed at developing competence in Cereal Crops Production for youth employment and food security.

QUALIFICATION OBJECTIVES

To achieve this qualification, the farm attendant should be able to demonstrate the knowledge of:

1. Health and safety
2. Team work
3. Communication
4. Site selection
5. Land preparation for nursery and field
6. Nursery and planting practices
7. Crop management practices
8. Harvesting and harvesting procedures
9. Processing and storage
10. Transport and marketing of products

Mandatory Units

S/No /Unit No	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Remark
1	AGR/CRP/C/001/L1	Occupational health and safety	2	20	Level 1
2	AGR/CRP/C/002/L1	Communication in Crop Production	2	20	Level 1
3	AGR/CRP/C/003/L1	Team work in Crop Production	4	40	Level 1
4	AGR/CRP/C/004/L1	Site selection	4	40	Level 1
TOTAL			12	120	

Optional Units

S/No /Unit No	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Remark
5	AGR/CRP/C/005/L1	Land preparation for nursery and field	3	30	Level 1
6	AGR/CRP/C/006/L1	Nursery and planting practices	3	30	Level 1
7	AGR/CRP/C/007/L1	Crop management practices	3	30	Level 1
8	AGR/CRP/C/008/L1	Harvesting and Harvesting procedures	3	30	Level 1
9	AGR/CRP/C/009/L1	Processing and storage	3	30	Level 1
10	AGR/CRP/C/0010/L1	Transportation and marketing of products	3	30	Level 1
TOTAL			18	180	

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 Vocational Qualification framework NVQF.
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.

Qualification: CEREAL CROP PRODUCTION

QCF level: 1

Credit value: 30

Guided learning hours: 30

Level Purpose:

At the end of the Units within, the Learner should be able to:

1. Understand the importance of Communication and Team-work at the workplace;
2. Know basic safety and health requirements in a workplace
3. Demonstrate an understanding of site selection for Cereal crops.
4. Carry out land preparation for Cereal crops.
5. Understand the basic concepts and principles involves in nursery and planting practices in Cereal crops.
6. Understand the fundamentals of Cereal crop management practices.
7. Demonstrate understanding of skills involved in harvesting Cereal crops.
8. Exhibit understanding of handling, processing and storage
9. Demonstrate understanding of Transportation and marketing of Cereal crops/ products.

Level assessment requirements/evidence requirements

There are eight (8) mandatory units (i.e. Units 1, 2, 4, 5, 6, 7, 8) and three (3) optional units (i.e. units 3, 9, 10) in this level to enable the learner to qualify for QCF Level 2 in Digital Service Operation.

The evidence required in this level includes:

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

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA	Evidence Type				Evidence Ref. Page No.				
The learner will:		The learner can:									
Practices and Instructions	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: Demonstrate Understanding of Safety Hazards and risks	2.1	Identify work environment hazards									
	2.2	State methods to reduce the risk of these hazards									
	2.3	Identify Personal Protection Equipment (PPE) eg: Goggles, Boot, Gloves etc.									
	2.3	State methods to resolve an occurring environmental hazard									
LO 3: Possess the ability to take appropriate actions during accident/injury	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: Demonstrate safe work habit and clean work environment	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 (eg. Water, Energy etc)									

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

LEARNING OBJECTIVE (LO) The learner will:		PERFORMANCE CRITERIA	Evidence Type				Evidence Ref. Page No.				
		The learner can:									
knowledge of the importance of good communication		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:											
Demonstrate ability to document and follow documented instructions	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 (Eg: Receipt, Invoices, Reports)									
	2.3	Document Errors, solution, processes and reports									

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EQA Signature (if sampled)	Date:

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

Unit 4: Land Preparation for cereal crop production

Unit Reference Number: AGR/CRP/C/004/LI

QCF level: 1

Credit value: 3

Guided learning hours: 30

Unit Purpose:

This unit standard specifies the competencies required to deal with the clearing of bushes, stumping trees, and tilling the selected land for nursery and field operation for cereal crops production

Unit assessment requirements/evidence requirements

The unit requires the various assessment materials below;

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

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
<i>Demonstrate the knowledge of land Preparation</i>	1.1	Carry out land clearing								
	1.2	Carryout felling of tree								
	1.3	Perform stumping of trees and removal of roots and debris on								

LO 4											
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Learners Signature:	Date:
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EQA Signature (if sampled)	Date:

Unit 5: Nursery and planting practices

Unit reference number: AGR/CRP/C/005/L1

QCF level: 1

Credit value: 3

Guided learning hours: 30

Unit Purpose:

This unit standard specifies the competencies required to demonstrate understanding of planting seeds in the nursery and on the field, applying pre-emergence herbicides, basal fertilizers, irrigation when necessary and appropriate planting methods for cereal crops

Unit assessment requirements/evidence requirements

The unit requires the various assessment materials below;

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

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
LO 1 Demonstrate understanding of Planting operations	1.1	Dress the seeds								
	1.2	Measure and mark the spacing for individual crops in the nursery and on the field								
	1.3	Sow seed in the nursery								

LO 4 Understand appropriate planting methods	4.1	Carryout dibbling method of planting											
	4.2	Carryout drilling method of planting											
	4.3	Select the right planting methods for each Cereal crop											
	4.1	Carryout dibbling method of planting											

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

Learners Signature:

Date:

Assessors Signature:

Date:

IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

Unit8: Harvesting and harvesting procedures

Unit reference number: AGR/CRP/C/007/L1

QCF level: 1

Credit value: 3

Guided learning hours: 30

Unit Purpose:

This unit standard specifies the competencies required to demonstrate the understanding of the maturity time and signs of maturity and using an appropriate harvesting equipment and right harvesting methods in cereal crops production

Unit assessment requirements/evidence requirements

The unit requires the various assessment materials below;

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

LO (Learning outcome)	Criteria:-	Evidence Type	Evidence Ref Page number
LO1 Understanding Maturity Time of Cereal crops	1.1	Identify matured Cereal crops	
	1.2	State the maturity period of Cereal crops	
	1.3	Distinguish between mature and immature Cereal crops	

LO 2 Harvesting and harvesting procedures	2.1	Operate harvesting simple harvesting tools such as; sickle, cutlass, etc																	
	2.2	Use right methods of harvesting individual Cereal crop																	
	2.3	Separate Cereal products from crop residues																	
	2.4	Carryout bagging of products																	
LO 3																			

Learners Signature:	Date:
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crops handling and processing	1.3	Carryout bagging of Cereal crops										
	1.4	Carryout weighing of the bagged products.										
LO 2												
Demonstrate basic Skills in Storage of Cereal crops	2.1	Carryout cleaning of store using simple tools.										
	2.2	Arrange pallets in the store										
LO 3	2.3	Perform stacking of bags in the store										
Transport and marketing of Cereal crops	3.1	Identify right transportation means for Cereal crops										
	3.2	Observe the changes in the warehouse.										
	3.3	Identify market for the products										

Learners Signature:	Date:
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EQA Signature (if sampled)

Date:

Learners Signature:

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IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

***NATIONAL SKILLS
QUALIFICATION***

(NSQ)

***CEREAL CROPS
PRODUCTION
LEVEL 2***

NATIONAL SKILLS QUALIFICATION
QCF LEVEL 2 – CEREAL CROPS PRODUCTION

GENERAL INFORMATION

QUALIFICATION PURPOSE

This qualification is aimed at developing competence in Cereal Crops Production for youth employment and food security.

QUALIFICATION OBJECTIVES

To achieve this qualification, the farm Supervisor should be able to demonstrate the knowledge of:

1. Site selection
2. Land preparation for nursery and field
3. Nursery and planting practices
4. Crop management practices
5. Harvesting and harvesting procedures
6. Processing and storage
7. Transport and marketing of products

Mandatory Units

S/No /Unit No	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Remark
1	AGR/CRP/C/001/L2	Site selection 2	4	40	Level 2
TOTAL			4	40	

Optional Units

S/No /Unit No	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Remark
2	AGR/CRP/C/002/L2	Land preparations for field	4	40	Level 2
3	AGR/CRP/C/003/L2	Nursery and planting practices	4	40	Level 2
4	AGR/CRP/C/004/L2	Crop management practices	4	40	Level 2
5	AGR/CRP/C/005/L2	Harvesting and Harvesting procedures	4	40	Level 2
6	AGR/CRP/C/006/L2	Processing and storage	4	40	Level 2
7	AGR/CRP/C/007/L2	Transport and Marketing of Cereal crop Products	4	40	Level 2
TOTAL			24	240	

GUIDE

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Qualification: CEREAL CROPS PRODUCTION 2

QCF level: 2

Credit value: 4

Guided learning hours: 40

Level Purpose:

At the end of the Units within, the farm supervisor should be able to:

1. Demonstrate an understanding of site selection for Cereal crops.
2. Carry out land preparation for Cereal crops.
3. Understand the basic concepts and principles involves in nursery and planting practices in Cereal crops.
4. Understand the fundamentals of Cereal crop management practices.
5. Demonstrate understanding of skills involved in harvesting Cereal crops.
6. Exhibit understanding of handling, processing, storage and marketing of Cereal crops/ products.

Level assessment requirements/evidence requirements

There are eight (8) mandatory units (i.e. Units 1, 2, 4, 5, 6, 7, 8) and three (3) optional units (i.e. units 3, 9, 10) in this level to enable the learner to qualify for QCF Level 2 in Digital Service Operation.

The evidence required in this level includes:

1. Questioning
2. Direct Observation of the learner's performance
3. Recognition of Prior Learning and experience
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7. Assignment

	3.5	Describe the adaptations of Cereal crops to climatic elements								
	3.6	Observe changes caused by any of these factors on the growth of Cereal crops.								

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

Unit 2: LAND PREPARATION IN CEREAL CROPS PRODUCTION 2

Unit Reference Number: AGR/CRP/C/002/L2

QCF level: 2

Credit value: 4

Guided learning hours: 40

Unit Purpose:

This unit standard specifies the competencies required in clearing the bushes, stumping trees and tilling the selected land for nursery and field operation for Cereal crops.

Unit assessment requirements/evidence requirements

The unit requires the various assessment materials below;

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

LO (Learning outcome)	Criteria:-	Evidence Type				Evidence Ref Page number			
LO 1 Demonstrate the knowledge of land Preparation	1.1	Identify implements required for each of the operations							
	1.2	Demonstrate the use of farm implements in land preparation							
	1.3	Estimate man hour required for each farm operation							

	1.4	Determine when each of these operations is needed to be carried out.								
	1.5	Ensure the land is well prepared								
LO 2 Demonstrate the understanding of farm lay out,	2.1	Map out different areas for different operations based on the soil/ land characteristics								
	2.2	Determine plots for each crop								
	2.3	Arrange each crop to suit farming operation								
	2.4	Explain advantages and disadvantages of 2.1 above								

Learners Signature:	Date:
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Unit 3: NURSERY AND PLANTING PRACTICES IN CEREAL CROPS 2

Unit reference number: AGR/CRP/C/005/L2

QCF level: 2

Credit value: 4

Guided learning hours: 40

Unit Purpose:

This unit standard specifies the competencies required to demonstrate understanding of planting seeds in the nursery and on the field, applying pre-emergence herbicides, basal fertilizers, irrigation when necessary and appropriate planting methods for Cereal crops

Unit assessment requirements/evidence requirements

The unit requires the various assessment materials below;

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

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
LO 1 Plant seeds in the nursery and on the	1.1	Carry out seed viability test								
	1.2	State planting methods such as; broadcasting, direct sowing, etc								

planting methods (dibbling or drilling)										
	4.2	State number of seeds per stand								
	4.3	Measure and mark spacing of Cereal crops.								
	4.4	Determine appropriate planting depth,								
	4.5	Carry out maintenance of planting implements used for the operation								

Learners Signature:

Date:

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3.6	State the economic importance of pest for Cereal crops								
3.6	State the economic importance of disease for Cereal crops								
3.7	State the economic importance of weed for Cereal crops								
3.8	Explain the importance of time in the application of management techniques in Cereal crops								
3.9	Explain the appropriate farm implements for different operations (knapsack and boom sprayer)								
3.10	Carry out the maintenance of farm implements used for the operations.								

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

Unit 5: HARVESTING AND HARVESTING PROCEDURES 2

Unit reference number: AGR/CRP/C/005/L2

QCF level: 2

Credit value: 4

Guided learning hours: 40

Unit Purpose:

This unit standard specifies the competencies required to demonstrate understanding of the fundamentals and concepts of maturity time, signs of maturity and using an appropriate harvesting equipment and right harvesting methods of Cereal crops.

Unit assessment requirements/evidence requirements

The unit requires the various assessment materials below;

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 learner's work.
7. Assignment

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
LO1 Understanding Maturity Time of Cereal crops	1.1	Explain physiological changes towards maturity in Cereal crops								
	1.2	Explain signs of maturity in Cereal								

	1.3	State the time of harvest of Cereal crops											
LO 2 Demonstrate Harvesting and harvesting procedures													
	2.1	Describe harvesting methods of Cereal crops											
	2.2	Operate different harvesting implements such as; sickle etc.											
	2.3	Explain the importance of handling during harvesting											
	2.4	Ensure that right implements are used during harvesting.											
	2.5	Carry out the maintenance of harvesting implements											

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

Learners Signature:

Date:

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IQA Signature (if sampled)

Date:

EQA Signature (if sampled)

Date:

of Cereal crop products	1.3	Ensure that Cereal crops are properly loaded when transporting.									
LO 2 Demonstrate the understanding of grading/standardization of Cereal crop/products											
	2.1	Explain how to standardize/grade Cereal crops/products for National or International markets .									
	2.2	Determine the appropriate methods of weighing Cereal crops/products for the market.									
	2.3	Prepare Cereal crops/products for marketing.									
LO 3 Understand marketing of Cereal crops/products	3.1	Identify market for the products									
	3.2	Explain market requirement									
	3.3	Determine marketing strategies									

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

TEAM LIST

S/N	NAME	ADDRESS
1	Dr. Mohammed Ishaq	National Cereals Research Station Badegi, Niger State 08036835435 Mnishaq2013@gmail.com
2	Keke Callistus Ifeanyi	Department of Crop Production Federal College of Agriculture, Ishiagu, Ebonyi State 07032152735 kekecalistus@yahoo.com
3	Nsan Tiku Nsan	NBTE, Kaduna 08066792301 santoadaape2@gmail.com
4	Engr. Bashir Datti Amin	NBTE, Kaduna 08032886231 bashirdatti@gmail.com
5.	Dr. Olayemi Wasiu Ajani	Department of Agricultural Technology Yaba College of Technology, Yaba Lagos 08023671812 w_olayemi@yahoo.co.uk
6	Mr. Baale Bukar	School of Agriculture Ramat Polytechnic, Maiduguri. 07033855392 Bale.bukar@gmail.com