



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Business, Technical, Vocational Education and Training [BTVET] Subsector Reform



Assessment and Training Package

For

RICE FARMER

Qualification Level: 1

Occupational Cluster: Agriculture, Natural Resources and Environment

January 2022

Developed by:

**Qualifications Standards Department
Directorate of Industrial Training**

Funded by:

Government of Uganda

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Under BTVET Act, 2008 the functions of the Directorate of Industrial Training are:

- (a) To identify the needs of the labour market for occupational competencies that fall under the UVQF;
- (b) To regulate apprenticeship schemes;
- (c) To foster and promote entrepreneurial values and skills, as an integral part of the UVQF;
- (d) To secure adequate and sustainable financing for the efficient operations of the Directorate;
- (e) To accredit training institutions or companies as assessment centers;
- (f) To determine fees payable under the Act;
- (g) To develop, apply, expand and improve the purposeful application of Uganda Vocational Qualifications defined in the UVQF;
- (h) To assess and award Uganda Vocational Qualifications;
- (i) To promote on-the-job training in industry for apprenticeship, traineeship and indenture training and for other training such as further skills training and upgrading; and
- (j) To prescribe the procedure for the making of training schemes

Further to the above provisions, there is an established Uganda Vocational Qualifications Framework (UVQF), under part V of the BTVET Act, 2008. It is stated that:

The purpose of the UVQF is to define:

- (a) Occupational standards in the world of work;
- (b) Assessment standards;
- (c) Vocational qualifications of learners who meet the set standards of different studies;
- (d) Provide guidelines for modular training.

The UVQF shall follow principles of Competence Based Education and Training (CBET) which include:

- (a) Flexible training or learning modules;
- (b) Positive assessment and Certification;
- (c) Assessment of Prior Learning;
- (d) Recognition of formal and non-formal training;
- (e) Self-paced or individual learning; and
- (f) Work place learning

For award and recognition of certificates, the BTVET Act, 2008 provides that:

- (1) The Directorate and other examination boards established under the Act shall award certificates and diplomas for Business, Technical or Vocational education and training under the UVQF;
- (2) The Certificates and Diplomas to be awarded shall be in the form prescribed by the Minister on the recommendation of the Industrial Training Council;
- (3) The Certificates and Diplomas awarded under the Act shall be recognized in the Uganda education system and by the labour market.

Under the TVET Implementation Standards 2020, the proposed new mandate of the Directorate of Industrial Training shall be restricted to promoting the highest standards in the quality and efficiency of industrial training in the country and ensuring an adequate supply of properly trained manpower at all levels in the industry and the world of work.

The functions shall include:

- a) Regulating Industrial training and trainers,
- b) Developing industrial training curricula,
- c) Harmonizing curricula and certificates of competence,
- d) Assessing industrial training,
- e) Development of occupational standards and Assessment and Training Packages (ATPs) for Trade Testing for the industry and world of work and
- f) Awarding certificates in that respect.

At operational level in the Directorate, the Qualification Standards Department performs development tasks related to concepts, procedures and instruments for establishment of the UVQF in close collaboration with both public and private stakeholders in vocational training.

In particular, the Department organizes and coordinates the development of Assessment and Training Packages for use in competence-based vocational training as well as standards-based assessment and certification.

The Directorate has therefore produced this Assessment and Training Package for use in implementing Competence-Based Education and Training mechanisms.

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Word from Permanent Secretary

The Ministry of Education and Sports (MoES) through the Directorate of Industrial Training conducts Competence Based Assessment.

The foreseen advantages of CBA include improved access, equity and relevance of skills development, reduced unit costs of training, and recognition of Prior Learning (or on-the-job-training), among others.

As the Ministry executes its obligation of ensuring quality in training standards, the public-private partnership is being strengthened to improve occupational competence of the country's workforce without gender bias.

To achieve the set-out targets, the Directorate embarked on the anticipated UVQF design and development piloting its instruments and mechanisms in order to effectively enhance Competence-Based Assessment (CBA) in Uganda.

To date, the Qualifications Standards Department of DIT has produced Assessment and Training Packages (ATP) for various occupations. Each ATP contains 3 parts namely:

- 1.Occupational/job Profile
- 2.Training modules and
- 3.Assessment instruments Banks

The ATP can be used by any training provider and/or those who wish to present themselves for Occupational Assessment and Certification.

Herewith, the Directorate of Industrial Training presents the "Assessment & Training Package (ATP)" for training, assessment and certification of **RICE FARMER– QUALIFICATION LEVEL 1**.

Finally, I thank all individuals, organizations and development partners who have contributed and/or participated in the review of this noble document.

Ketty Lamaro

Permanent Secretary

Executive Summary

This Assessment and Training Package is a Competence-Based Education and Training (CBET) tool and consists of three major parts:

- 0.1 **PART I: The “Occupational Profile” (OP) of a RICE FARMER.** This Occupational Profile which was reviewed by Rice farmers practicing in the world of work, mirrors the duties and tasks Rice farmers are expected to perform in the world of work.
- 0.2 **PART II: “Training Modules”** in the form of guidelines to train **Rice farmers** both on the job as well as in training centres (or combinations of both venues of learning). The Training Modules herein have been reviewed basing on the Occupational Profile and hence are directly relevant for employment.
- 0.3 **PART III: “Assessment Instruments”** in the form of performance (Practical) and written (theory) test items that can and should be used to assess whether a person complies with the requirements of employment as a **Rice farmer**. These assessment instruments were developed jointly by job practitioners (Rice farmer) and teachers based on the occupational profile and training modules¹.
- 0.4 While the Occupational Profile (OP) contained in PART I of this document provides the information on **WHAT a person is expected to do** competently in the world of work, the test items, -including performance criteria- of PART III qualify the **HOW and/or HOW WELL a person must do the job.**

In combination, both parts -the OP and the test items- constitute the relevant ‘Assessment STANDARDS’ for competence-based assessment and certification for acquiring a credible Qualification for – Rice farmer Qualification Level 1.

- 0.5 The modular format of the curriculum (PART II) allows learners to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration of time allowing flexibility for learners to move directly into an entry level job, go for further modules or advance to higher levels of training. Modular courses allow more learners to access the training system because training centers as well as companies can accommodate more students in a given period of time.
- 0.6 In addition to improved access, equity and relevance of BTVET, the UVQF will also enable people who are convinced to have acquired competencies laid down in this ATP through prior training and on-the-job experience to access assessment and certification directly; be it on the basis of a single module, a group of modules or all modules pertaining to the occupation at once. This achievement will facilitate Recognition of Prior Learning (RPL).

¹In this document, only sample test items for assessing (practical) performance and occupational knowledge (theory) are included. A larger selection of test items can be obtained from an electronic Test Item Bank at Directorate of Industrial Training

0.7 The parts of this Assessment and Training Package were sequentially reviewed as follows:

- i Part 1: Occupational Profile: **July 2020**
- ii Part 2: Training Modules: **July 2020**
- iii Part 3: Assessment Instruments (initial bank): **July 2020**

This ATP (or parts of it) may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

Patrick Byakatonda
Ag Director

Acknowledgement

The Qualifications Standards Department of DIT wishes to sincerely acknowledge the valuable contributions to the review of this Assessment and Training Package by the following persons, Institutions and organizations:

- Members of the DIT Industrial Training Council;
- The Director and staff of DIT,
- Ministry of Education and Sports;
- The practitioners from the world of work;
- Teachers of Agriculture in various Secondary schools;
- Agriculture Curriculum Specialists from NCDC;
- Examination Specialist from UNEB;
- The facilitators involved in guiding the practitioners in their activities;
- The Government of Uganda for financing the review of this ATP;

Abbreviations and Acronyms

A&C	Assessment & Certification
ATP	Assessment & Training Packages
BTVET	Business, Technical and Vocational Education and Training
CBET	Competency Based Education and Training
DIT	Directorate of Industrial Training
ITC	Industrial Training Council
GoU	Government of Uganda
LWA	Learning-working Assignment
MC	Modular Curriculum
MoES	Ministry of Education and Sports
OP	Occupational Profile
PEX	Practical Exercise
PTI	Performance (Practical) Test Item
QS	Qualification Standards
RPL	Recognition of Prior Learning
TIB	Test Item Bank
TVET	Technical, Vocational, Education and Training
UVQ	Uganda Vocational Qualification
UVQF	Uganda Vocational Qualifications Framework
WTI	Written (Theory) Test Item

Key Definitions

Assessment	Assessment is the means by which evidence is gathered and judged to decide if an individual has met the stipulated assessment standards or not. Testing is a form of formal assessment.
Certification	Certification is a formal procedure to issue a certificate (qualification) to an individual that has demonstrated during formal assessment that he/she is competent to perform the tasks specified in the occupational profile.
Competence	Integration of skills, knowledge, attitudes, attributes and expertise in doing /performing tasks in the world of work to a set standard.
Competency	(Occupational) competency is understood as the ability to perform tasks common to an occupation to a set standard.
CBET	Competence-based education and training means that programmes: <ol style="list-style-type: none"> 1. have content directly related to work 2. focus is on 'doing something well' 3. assessment is based upon industry work standards, and 4. curricula are developed in modular form
Duty	A Duty describes a large area of work in performance terms. A duty serves as a title for a cluster of related Tasks (see also: TASK).
Learning-Working Assignment (LWA)	LWA are simulated or real job situations / assignments that are suitable for learning in a training environment (e.g. "small projects"). In a working environment LWAs are real work situations /assignments.
Modules	Modules are part(s) of a curriculum. Modules can be considered as "self-contained" partial qualifications which are described by learning outcomes or competencies and which can be assessed and certified individually.
Occupational Profile (OP)	An Occupational Profile is an overview of the duties and tasks a job incumbent is expected to perform competently in employment. Occupational Profiles developed by practitioners from the world of work enhance the relevance of training and learning to the requirements of the world of work.

Occupational Profiles define WHAT a person is supposed to do in performance terms. It also contains generic information regarding related knowledge and skills, attitudes/behavior, tools, materials and equipment required to perform as well as trends/ concerns in the occupation.

Occupational profiles are the reference points for developing modular curricular and assessment standards

Qualification A qualification is a formal recognition for demonstrating competence, based on formal assessment against set standards. A qualification is provided to the individual in form of a certificate specifying the nature of the competence.

Task Job TASKS represent the smallest unit of job activities with a meaningful outcome. Tasks result in a product, service, or decision. They represent an assignable unit of work and have a definite beginning and ending point. Tasks can be observed and measured. *(see also: Duty)*

1.0 ATP-PART I

Occupational Profile for a RICE FARMER

- 1.1 The OCCUPATIONAL PROFILE (OP) for “Rice farmer” below defines the **Duties** and **Tasks** a competent Rice farmer is expected to perform in the world of work (on the job) in Uganda and the East African region today.
- 1.2 Since it reflects the skill requirements of work life, the Occupational Profile is the reference document for the subsequent development of training modules and assessment instruments (test items) which are directly relevant to employment in Ugandan and the East African businesses and industries.
- 1.3 To ensure that the Occupational Profile is relevant for employment in Uganda and East Africa, the DIT used the method of “occupational/job profiling.”¹

This approach involves the brainstorming of a panel of 8 to 12 competent job practitioners guided by trained and experienced facilitators. During a two-day workshop the panelists define the duties and tasks performed in employment, as well as the prerequisite skills, knowledge, attitudes, tools and equipment, and the future trends and concerns in the occupation/job.

- 1.4 The panelists, facilitators and coordinators who participated in reviewing this Occupational Profile for a RICE FARMER are listed on the following page.

¹ The DACUM-method was used. DACUM is an acronym for ‘Develop A Curriculum’

Job Expert Panel**Naiga Zulaika**

Ministry of Education and Sports

Golomba Wilber

NCDC

Mityelo Bernard

UNEB Examiner

Isooba Jimmy

Iganga SS

Okiria Pius

Soroti Secondary School

Nabirye Harriet

Gombe SS

Nkwatsibwe Innocent

Ntare School

Okello Norbert

St Joseph College Luyibi

Kabasa Nathan

IFDC - Namutumba

Asiimwe Emmanuel

Agriculture officer – Nyanga S/C

Mpaulo Joel

Idha Tujje Agencies

Ebong Andrew

Bongomin Group Ltd

Co-ordinator**Mukyala E. Ruth**

Directorate of Industrial Training

Facilitators**Asiimwe Janet**

Directorate of Industrial Training

Atukwatirire Alexander

Directorate of Industrial Training

Funded by

The Government of Uganda



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Business, Technical and Vocational
Education and Training (BTJET) Sub sector
Reform

Occupational Profile

For a

“ RICE FARMER ”

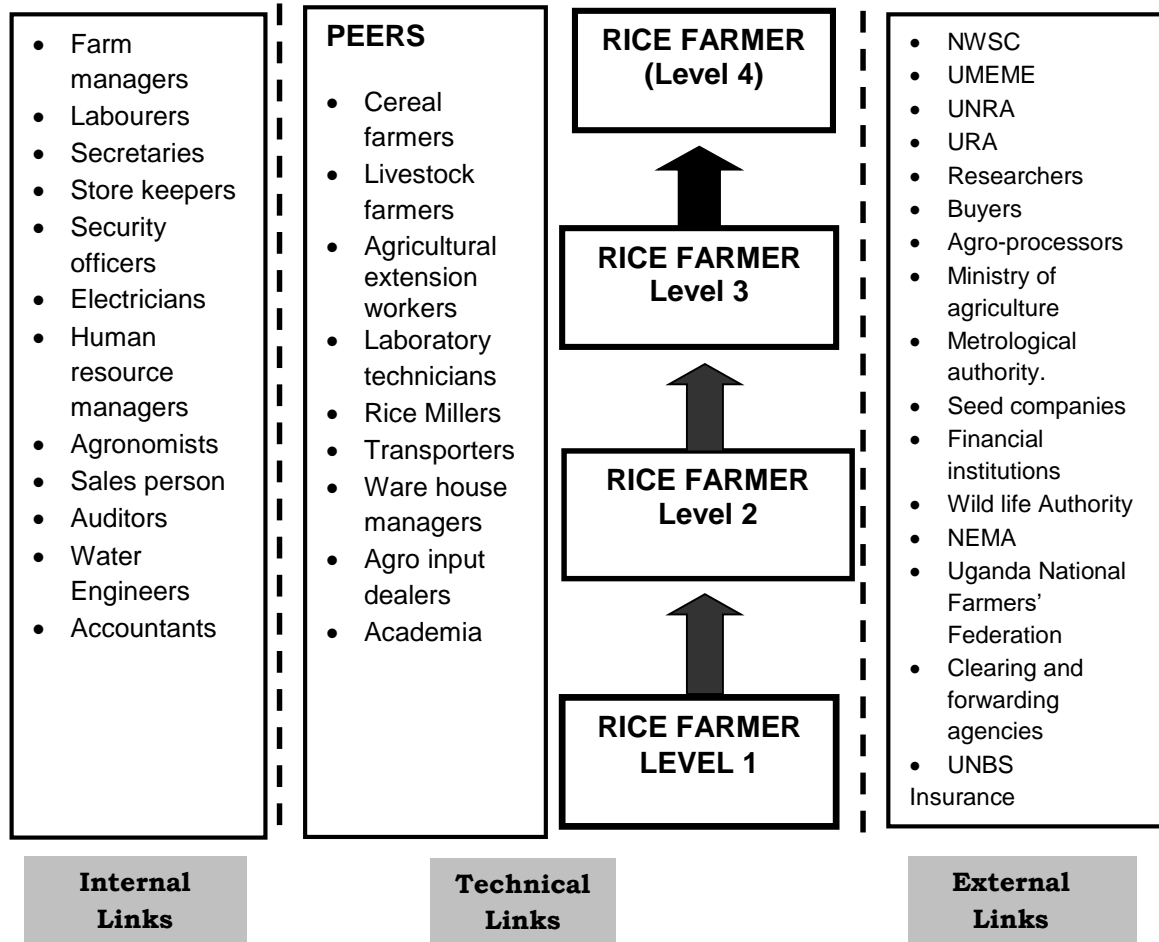
Reviewed by: Qualifications Standards
Department of the Directorate
of Industrial Training

Date of workshop: 10th –14th January, 2022

NOMENCLATURE FOR THE OCCUPATION OF A RICE FARMER

Definition: A person who grows rice following proper agronomic practices, post-harvest handling and marketing.

JOB ORGANISATION CHART FOR A RICE FARMER



Descriptions for the levels in the occupation of a 'Rice farmer'
UVQ Level I RICE Farmer;

Is a person who grows rice with basic skills and knowledge mainly for commercial purposes.

UVQ Level II RICE Farmer;

Is a person who uses moderate skills, technology and adequate resources to produce rice mainly for commercial purposes.

UVQ Level III RICE Farmer;

Is a person who uses appropriate technologies to carry out rice farming using agronomic practices required to grow rice for commercial purposes.

Duties and Tasks

A. Plan Farm Activities	A1. Select site	A2. Prepare crop calendar	A3. Prepare budget
	A4. Source funds	A5. Source inputs	A6. Determine water source
	A7. Determine labour source	A8. Determine market source	
B. Prepare Garden	B1. Clear land	B2. Till land	B3. Harrow land
	B4. Paddle land	B5. Level land	B6. Establish bunds
	B7. Establish water channels	B8. Test soil	
C. Establish crop	C1. Clear land	C2. Demarcate land	C3. Till land
	C4. Level land	C5. Determine seed variety	C6. Sort seed
	C7. Pre germinate seeds	C8. Apply fertilizer	C9. Sow seeds
	C10. Water seed		
D. Establish Nursery Bed	D1. Select site	D2. Clear site	D3. Till land
	D4. Measure land	D5. Raise land	D6. Level land
	D7. Apply fertilizer	D8. Sow seed	D9. Mulch nursery bed
	D10. Water seed	D11. Manage nursery bed	
E. Manage Rice Garden	E1. Scout garden	E2. Gap fill	E3. Weed crop
	E4. Apply fertilizer	E5. Irrigate crop	E6. Control pests and diseases
	E7. Rogue crop	E8. Repair bunds	E9. Clean water channels
F. Perform Harvest and post-harvest practices	F1. Cut crop	F2. Threshing	F3. Dry crop
	F4. Test moisture	F5. Mill crop	F6. Pack crop
	F7. Clean crop	F8. Store crop	

G. Market Produce.	G. Market Produce.	G1. Pack product	G2. Advertise rice
	G4 Administer drugs	G4. Price rice	G5. Market research
	G7. Transport product	G8. Label product	G9. Sell product

H. Perform administrative tasks	H1. Pay bills	H2. Maintain records	H3. Mobilize resources
	H4. Remunerate workers	H5. Manage human resource	H6. Recruit workers
	H7. Manage finances	H8. Carry out research	H9. Repair and maintain farm structures
	H10. Conduct meetings	H11. Register business	

I. Construct farm structures.	I1. Construct bunds	I2. Construct water reservoirs	I3. Construct drying yards
	I4. Construct a parking yard	I5. Construct stores	I6. Construct offices
	I7. Construct water channels	I8. Construct houses for workers	I9. Construct farm roads
	I10. Construct fences	I11. Construct processing units	

J. Occupational health, safety, and environmental protection	J1. Wear protective gear	J2. Manage wastes	J3. Store chemicals
	J4. Administer first Aid	J5. Display safety signs	J6. Perform fire fighting
	J7. Maintain machines and equipment	J8. Observe proper hygiene and sanitation	J9. Establish fire assembling
	J10. Ensure safety of workers		

Additional Information

Related knowledge & skills	
1. Customer care	10. Collaborations
2. Public relations	11. Negotiations
3. Firefighting skills	12. Knowledge on chemical use skills
4. Counselling skills	13. Management skills
5. Communication skills	14. Flexibility skills
6. Recording skills	15. Marketing skills
7. Time management skills	16. Sign language skills
8. Planning	17. Nursery bed management
9. Numeric skills	

Tools, Equipment and Materials		
1. Labels	18 Buckets	37 Disc plough
2. Weighing scale	19 Jerrycans	38 Tractors
3. Basin	20 Weighing scale	39 Soil auger
4. Mattocks	21 Rakes	40 Watering can
5. Axe	22 Tarpaulin	41 Pegs
6. Harvesting sickles	23 Marking pegs	42 Water tap
7. knives	24 Ropes	43 Sickles
8. Threshers and winnowers	25 First aid kit	44 Tape measure
9. Strings	26 Sacks	45 spanners,
10. Overalls	27 Fertilizers	46 screws,
11. Wheel barrows	28 Spade	47 winnowers,
12. Sprayers	29 Hallower	48 yoke,
13. Destoners	30 Agro Chemicals	49 Gloves
14. threshers	31 Calculator	50 Vehicles
15. line planters	32 Stationery	51 Toilet papers
16. Soap	33 Masks	52 Furniture
17. Rakes	34 Computers	53 Dusters
18. Pangas	35 Sanitizers	54 Fire extinguishers
19. Seeds	36 Telephone	55 Mould board ploughs
20. Helmet	21. Eye goggles	

Attitudes / Traits / Behaviour	
1. Innovative	12. Empathetic
2. Hygienic	13. Result oriented
3. Sober	14. Tolerant
4. Punctual	15. Honest and transparent
5. Organized	16. Realistic
6. Trust worthy	17. Good listener
7. Trainable	18. Fast learner
8. Hard working	19. Kindness
9. Team player	20. Integrity
10. Creative	21. Problem solving
11. Good planner	22. Energetic
	23. Resilience

Future Trends and Concerns	
1. Climate change	19. Pandemics
2. Inadequate capital	20. Increased taxes
3. Environmental degradation	21. forming associations
4. Cleaning and drying rice	22. computer literacy
5. Quality of rice	23. value addition
6. Market fluctuations	24. environmental degradation
7. Price fluctuation	25. mechanization of all farm activities
8. Trade blocks for better market	26. competition
9. Use of technology	27. Accidents
10. Emerging pests and diseases	28. Market information
11. Value addition on the farm	29. Weather fluctuations
12. Land conflicts	30. Death
13. Land tenure system	31. Security
14. Proper storage facilities	32. Labour supply
15. Insecurity	33. Technological changes
16. Change in policy	34. Change in government
17. limited funding for research	35. land shortage
18. Natural disasters	36. population increase

2.0 ATP – PART II**Training Modules for RICE FARMER**

- 2.1 A curriculum is a “guide /plan for teaching and learning” which provides a guide to teachers, instructors and learners. In the envisaged system of competence-based or outcome-oriented education and training (CBET), Curricula are no longer the benchmark against which assessment is conducted. It is rather the Occupational Profile that provides the benchmark for Curriculum development as well as assessment.
- 2.2 This modular format of the curriculum allows learners of Rice farmer to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration of time allowing learners to move directly into an entry level job, do further modules and advance to higher levels of training. Modular courses allow more learners to access the training system because training centers, as well as companies can accommodate more students in a given period of time.
- 2.3 The modules were developed jointly by both instructors and job practitioners. They were developed using the Occupational Profile as a reference point and taking into account the specifications of training and learning outcomes.
- 2.4 The modules contain “Learning-Working Assignments” (LWAs) and related “Practical Exercises” (PEXs) as key elements.
- LWAs are simulated or real job situations/assignments that are suitable for learning in a training environment (e.g. “small projects”). In a working environment, LWAs are real work situations.
- PEXs are therefore sub-sets of a LWA.
- 2.5 In principle, and following the philosophy of Competence-Based Education and Training (CBET), the modules can be used as a guide for learning in a training Centre, at the workplace; or a combination of both.

WHO IS A RICE FARMER QUALIFICATION LEVEL 1?

A Rice Farmer Level 1 Is a person who grows rice with basic skills and knowledge mainly for commercial purposes.

TRAINING MODULES FOR RICE FARMER UVQ LEVEL 1

Code	Module Title	Average duration	
		Contact hours	Weeks
UE/R/M1.1	Carry out farm planning	120	3
UE/R/M1.2	Establish rice garden	480	12
UE/R/M1.3	Manage Rice Garden	480	12
UE/R/M1.4	Perform harvest and post-harvest handling	80	2
UE/R/M1.5	Market produce	400	10
Summary	5 Training Modules	1560	39

Note: Average duration is contact time but NOT calendar duration

It is assumed that:

- 1 day is equivalent to 8 hours of nominal learning and
- 1 month is equivalent to 160hours of nominal learning

Information given on the average duration of training should be understood as a guideline. Quick learners may need less time than indicated or vice versa.

At completion of a module, the learner should be able to satisfactorily perform the included Learning Working Assignments, their Practical exercises and attached theoretical instructions, as the minimum exposure.

Prior to summative assessment by recognized Agencies, the users of these Modules Guides are encouraged to carefully consider continuous assessment using samples of (or similar) performance (practical) and written test items available in part 3 of this ATP for **Rice Farmer**.

Code	UE/PF/M1.1
Module title	M1.1: Carry out farm planning
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Rice Farmer UVQ 1)
Qualification Level	1
Module purpose	After completion of this module, a trainee will be able to carry out farm planning activities.
Learning-Working Assignments (LWAs)	LWA1/1: Develop crop calendar LWA1/2: Project cash flows Note: 1. <i>The learning exercises may be repeated till the Trainee acquires targeted competence;</i> 2. <i>The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i>
Related Practical Exercises (PEXs)	LWA1/1: Develop crop calendar PEX 1.1: Identify activities PEX 1.2: Cost activities PEX 1.3: identify resources PEX 1.4: Allocate time for each activity. PEX 1.5: Allocate the responsible person for a given activity LWA1/2: Project cash flows PEX 2/1: Identify expenses PEX 2/2: Identify income flows PEX 2/3: Identify source of funds PEX 2/4: Identify available resources PEX 2/5: Monitor budget PEX 2/6: Monitor work plan PEX 2/7: Manage record PEX 2/8: Evaluate report
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<i>For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i> <ul style="list-style-type: none"> • Appropriate tools and equipment • Record keeping • Usage of tools and equipment • Time management • Numeracy and literacy skills

	<ul style="list-style-type: none"> • Procurement process • Time management • Lighting
Average duration of learning	120 hours (60 days) of nominal learning suggested to include: <ul style="list-style-type: none"> • 15 days of <i>occupational theory</i> and • 45 days of <i>occupational practice</i>
Suggestions on organization of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item Bank
Minimum required tools/ equipment/ implements or equivalent	computers, ruler, photocopiers, calculators, punching and stapling machines
Minimum required materials and consumables or equivalent	Papers, pencils, pens, past records, seeds, catalogues
Special notes	The theory must be integrated into the practice during training.

Code	UE/RF/M1.2
Module title	M1.2: Establish rice garden
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Rice Farmer UVQ 1)
Qualification Level	1
Module purpose	After completion of this module, the trainee will be able to establish a rice garden.
Learning-Working Assignments (LWAs)	<p>LWA2/1: prepare rice garden</p> <p>LWA2/2: prepare seeds</p> <p>LWA2/3: plant seeds</p> <p>LWA2/4: Transplant seedlings</p> <p>LWA2/5: Perform occupational health, safety and environmental practices</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The learning exercises may be repeated till the Trainee acquires targeted competence; 2. The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment. 3. Order of execution may vary.
Related Practical Exercises (PEXs)	<p>LWA2/1: prepare rice garden</p> <p>PEX 1.1: Survey site</p> <p>PEX 1.2: select tools</p> <p>PEX 1.3: clear land</p> <p>PEX 1.4: Measure land</p> <p>PEX 1.5: Till land</p> <p>PEX 1.6: Level land</p> <p>PEX 1.6: Fence land</p> <p>LWA2/2: Prepare seeds</p> <p>PEX 2.1: Select seeds</p> <p>PEX 2.2: Sort seeds</p> <p>PEX 2.3: Treat seeds</p> <p>PEX 2.4: Pre germinate seeds</p> <p>LWA2/3: Plant seeds in nursery bed</p> <p>PEX 3.1: Sow seed</p> <p>PEX 3.2: Cover seeds</p> <p>PEX 3.3: Mulch nursery</p> <p>PEX 3.4: Water seeds</p> <p>LWA2/4: Transplant seedling</p> <p>PEX 4.1: Drain water from garden</p> <p>PEX 4.2: Uproot seedling</p> <p>PEX 4.3: Press seedlings</p> <p>PEX 4.4: Space seedlings</p> <p>PEX 4.5: Plant seedlings</p>

	<p>LWA2/5: Perform occupational health, safety and environmental protection</p> <p>PEX 5.1: Wear protective gear PEX 5.2: Administer first Aid PEX 5.3: Manage waste PEX 5.4: Sensitize workers on key health issues PEX 5.6: Display safety signs PEX 5.7: Observe hygiene and sanitation PEX 5.8: Perform fire fighting PEX 5.9: Soil and water conservation PEX 5.10: Keep proper record of all chemical application</p>
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs
Pre-requisite modules	M1.3
Related knowledge/ theory	<p><i>For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Different methods of rice sowing • Upland and low land rice growing • Establishing a nursery bed • Planting depth of the hole for about 3*4cm • Plant 2-3 seedlings per hill • Spacing of 20-20cm • Methods of planting
Average duration of learning	<p>480 hours (60 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 20 days of occupational theory and • 40 days of occupational practice
Suggestions on organization of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item bank.
Minimum required tools/ equipment/ implements or equivalent	Hoe, watering can, rake, wheel barrow, dibber, spade, line markers, hand trowel, fire extinguisher, seed boxes

Minimum required materials and consumables or equivalent	Seed, fertilizer, stationery, planting strings, pegs, Agro chemicals.
Special notes	The theory must be integrated into the practice during training.

Code	UE/RF/M1.3
Module title	M1.3: Manage Rice garden
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Rice farmer UVQ 1)
Qualification Level	1
Module purpose	After completion of this module, a trainee will be able to manage and a rice garden.
Learning-Working Assignments (LWAs)	<p>LWA3/1: Weed Garden</p> <p>LWA3/2: Control pests and diseases</p> <p>LWA3/3: Apply fertilizers</p> <p>LWA3/4: Carry Irrigation</p> <p>LWA3/5: Perform Occupational health, safety and environmental protection</p> <p>Note:</p> <ol style="list-style-type: none"> <i>The learning exercises may be repeated till the Trainee acquires targeted competence;</i> <i>The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i>
Related Practical Exercises (PEXs)	<p>LWA3/1: Weed Garden</p> <p>PEX 1.1: Assemble tools</p> <p>PEX 1.2: Identify weed type</p> <p>PEX 1.3: Source herbicides</p> <p>PEX 1.4: Mix herbicides</p> <p>PEX 1.5: Apply herbicides</p> <p>PEX 1.6: Clean Tools and equipment</p> <p>LWA3/2: Control pests and diseases</p> <p>PEX 2.1: Identify diseases</p> <p>PEX 2.2: Determine infestation level</p> <p>PEX 2.3: source pesticide</p> <p>PEX 2.4: Assemble equipment for application</p> <p>PEX 2.5: Wear protective gear</p> <p>PEX 2.6: Mix pesticide</p> <p>PEX 2.7: Apply pesticide</p> <p>PEX 2.7: Clean equipment</p> <p>LWA3/3: Apply fertilizers</p> <p>PEX 3.1: Test soil</p> <p>PEX 3.2: Source fertilizer</p> <p>PEX 3.3: Identify cost</p> <p>PEX 3.4: Apply fertilizer</p>

	<p>LWA3/4: Carry out Irrigation PEX 4.1: Identify water source PEX 4.2: Construct Water reservoirs PEX 4.3: Construct water channels PEX 4.4: Construct bunds PEX 4.5: Block outlets PEX 4.6: Open inlets</p> <p>LWA3/5: Perform occupational health, safety and environmental protection PEX 5.1: Wear protective gear PEX 5.2: Administer first Aid PEX 5.3: Manage waste PEX 5.4: Sensitize workers on key health issues PEX 5.6: Display safety signs PEX 5.7: Observe hygiene and sanitation PEX 5.8: Perform fire fighting PEX 5.9: Soil and water conservation PEX 5.10: Keep proper record of all chemical application</p>
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<p><i>For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Methods of fertilizer application • Time of fertilizer application • Pest behaviors • Irrigation type • Crop calendar • Types of herbicides • Different diseases that affect rice • Type of pests that can affect rice • Water management skills • Safe handling of chemicals • Environmental protection skills • Signs and symptoms of diseases
Average duration of learning	480 hours (60 days) of nominal learning suggested to include <ul style="list-style-type: none"> • 20 days of occupational theory and • 40 days of occupational practice

Suggestions on organization of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item Bank
Minimum required tools/ equipment/ implements or equivalent	Sprayers, containers, water tanks, hoe, water valves, water pipes, spades, wheel barrows, tape measure, computers, telephones, weighing scale, slashers, pangas
Minimum required materials and consumables or equivalent	Herbicides, fertilizers, Overalls, gum boots, masks, stationery, airtime, traps, cement and bricks
Special notes	The theory must be integrated into the practice during training.

Code	UE/PF/M1.4
Module title	M1.4: Perform harvest and post-harvest handling
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Rice farmer UVQ 1)
Qualification Level	1
Module purpose	After completion of this module, a trainee will be able to carry out harvest and post-harvest handling activities.
Learning-Working Assignments (LWAs)	<p>LWA 4/1: Harvest rice</p> <p>LWA 4/2: Store rice</p> <p>LWA 4/3: Dry grains</p> <p>LWA 4/4: Perform occupational health, safety and environmental protection</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The learning exercises may be repeated till the Trainee acquires targeted competence; 2. The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.
Related Practical Exercises (PEXs)	<p>LWA 4/1: Harvest rice</p> <p>PEX 1.1: Test moisture content</p> <p>PEX 1.2: Assemble tools and materials</p> <p>PEX 1.3: Drain water</p> <p>PEX 1.4: Cut mature panicles</p> <p>PEX 1.5: Stack mature panicles</p> <p>PEX 1.6: Thresh Panicles</p> <p>LWA 4/2: Store rice</p> <p>PEX 2.1: Clean store</p> <p>PEX 2.2: Lay pallets</p> <p>PEX 2.3: Assembling required tools, materials and equipment</p> <p>PEX 2.4: Disinfecting store</p> <p>PEX 2.5: Receiving rice</p> <p>PEX 2.6: stacking bags.</p> <p>PEX 2.7: manage store</p> <p>LWA4/3: Dry grains</p> <p>PEX 3.1: Assemble tools</p> <p>PEX 3.2: Spread rice</p> <p>PEX 3.3: Turn rice</p> <p>PEX 3.4: Test moisture content</p> <p>PEX 3.5: Cool grains</p> <p>PEX 3.6: Clean grains</p> <p>PEX 3.7: Pack grains</p>

	<p>LWA4/4: Perform occupational health safety and environmental protection practices</p> <p>PEX 4.1: Wear protective gear PEX 4.2: Manage pest and diseases PEX 4.3: Maintain hygiene and sanitation PEX 4.4: Fire fighting PEX 4.5: Manage waste PEX 4.6: Display safety signs PEX 4.7: Administer first Aid</p>
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Usage of tools and materials • Planning • Human resource management • Measurements • Mathematical competencies • ICT • Networking • Regulations and policies • Transportation • Security • Storage • Record keeping • Regulations and policies • Human resource management • Financial management • Procurement planning • Waste management • First aid administration • Usage tool and materials • Negotiation • Professional ethics • Communication skills • Literacy • Research and innovation

Average duration of learning	80 hours (10 days) of nominal learning suggested to include <ul style="list-style-type: none"> • <i>3days of occupational theory and</i> • <i>7 days of occupational practice</i>
Suggestions on organization of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item Bank
Minimum required tools/ equipment/ implements or equivalent	Gumboots, , overall, weigh scales, , wheelbarrow, spade, rake, computers, calculators, phones, pangas, knives, weighing scales
Minimum required materials and consumables or equivalent	Seed, fertilizers, stationary, planting strings, pegs, agro chemicals
Special notes	The theory must be integrated into practice during training

Code	UE/PF/M1.5
Module title	M1.5: Market Produce
Related Qualification	Part of Uganda Vocational Qualification (Rice Farmer UVQ 1)
Qualification Level	1
Module purpose	After completion of this module, the trainee will be able to market rice produce.
Learning-Working Assignments (LWAs)	<p>LWA5/1: Promote rice</p> <p>LWA5/2: Market Research</p> <p>LWA5/3: Perform standardization</p> <p>LWA5/5: Value addition</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The learning exercises may be repeated till the Trainee acquires targeted competence; 2. The Trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.
Related Practical Exercises (PEXs)	<p>LWA 5/1 Promote rice</p> <p>PEX 1.1: Branding</p> <p>PEX 1.2: Advertising</p> <p>PEX 1.3: Transportation</p> <p>PEX 1.4: Packaging.</p> <p>PEX 1.5: Grade rice</p> <p>PEX 1.6: Participate in exhibitions</p> <p>LWA5/2: Market Research</p> <p>PEX 2.3: Give samples</p> <p>PEX 2.4: Join associations</p> <p>PEX 2.5: Carry out bench marking</p> <p>PEX 2.6: Source market</p> <p>PEX 2.7: Conduct price inquiries</p> <p>LWA5/3: Perform standardization</p> <p>PEX 3.1: Product quality</p> <p>PEX 3.2: Appearance harmonization</p> <p>PEX 3.3: Standard delivery.</p> <p>PEX 3.4: Product quantity</p> <p>PEX 3.5: Product wholesomeness</p> <p>PEX 3.6: Consistence of product</p> <p>PEX 3.7: Product traceability</p> <p>PEX 3.8: Certify Product</p> <p>LWA5/4: Value addition</p> <p>PEX 4.1: Mill rice</p> <p>PEX 4.2: Grade milled rice</p> <p>PEX 4.3: Polish rice</p> <p>PEX 4.4: Store rice</p> <p>PEX 4.5: Bulk marketing</p>

Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<p><i>For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognized reference materials as appropriate:</i></p> <ul style="list-style-type: none"> • Customer care • Marketing functions • Analytical skills • Consumer protection • Communication skills • Business plan development. • Good motivator • Tastes and preferences of market • People in competition • Risk management skills • Dangers of aflatoxins • Breakeven prices • Product substitutes and compliments. • Chemical levels in the product • Fumigation methods
Average duration of learning	<p>400 hours (50 days) of nominal learning suggested to include;</p> <ul style="list-style-type: none"> • <i>15 days of occupational theory and</i> • <i>35 days of occupational practice</i>
Suggestions on organization of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training center or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognized assessment body using related Practical and Written Test Items from Item Bank
Minimum required tools/ equipment/ implements or equivalent	Calculator, weighing scale, radios, moisture meters, television, vehicles, scooping trowels, megaphones, loud speakers, computers, photocopiers, phones, vehicles
Minimum required materials and consumables or equivalent	Internet, airtime, stationary, packing bags, music system, stickers, Magazines, Road Signs, brochures, sign posts, Phone directory books, website, Store Blogs, Receipt books, Display shelves, Laboratory reagents, test kits, microscopes.
Special notes	The theory must be integrated into the practice during training

3.0 ATP- PART III

Assessment Instruments for RICE FARMER

- 3.1 **Assessment** of occupational competence is the procedure by which evidence is gathered and judged to decide if an individual (candidate) has met the stipulated assessment standards.
- 3.2 Assessment of occupational competence should comprise of both practical (performance) testing and written (theory/knowledge) testing.
- 3.3 Based on the Occupational Profile and Training Modules, a combined panel of job practitioners and Instructors developed a substantial number of test items for assessing (practical) performance as well as items for assessing occupational knowledge (theory) all stored in an electronic Test Item Bank (TIB) at the Directorate of Industrial Training.
- 3.4 Performance (Practical) Test Items (PTI) are closely related to typical work situations in Ugandan business enterprises. They comprise of a test assignment for candidates and assessment criteria and/or scoring guides for assessors' use.
- 3.5 Written Test items (WTI) for written testing of occupational theory, (knowledge) are presented in different forms which include:
- Short answer test items.
 - Multiple choice test items
 - Matching test items,
- These WTIs herein focus on functional understanding as well as trouble-shooting typically synonymous with the world of work.
- 3.6 Composition of assessment/test papers will always require good choices of different types of WTI in order to ensure the assessment of relevant occupational knowledge required of candidates to exhibit competence.
- 3.7 The test items contained in the Test Item Bank may be used for continuous/formative assessment during the process of training as well as for summative assessment of candidates who have acquired their competences non-formally or informally.
- 3.8 In this document, samples of test items for assessing both performance (practical) and occupational knowledge (theory) of a **RICE FARMER** are included.

3.9 Overview of Test Item Samples Included

No	Type of test Items	Numbers included
1.	Written (Theory)- Short Answer	2
2.	Written (Theory)- Multiple Choice	2
3.	Written (Theory)- Matching with generic	2
4.	Written (Theory)- Matching with work-sequence	1
5.	Performance(Practical)Test Items	2
	Total	9

WRITTEN TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 1			
Occupational Title:	Rice Farmer			
Competence level:	2			
Code no.				
Test Item type:	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C1			
Date of OP:	September, 2021			
Related module:	M2.5			
Time allocation:	3 minutes			

Test Item	Identify four tools and equipment used to establish a rice garden
Answer spaces	1. _____ 2. _____ 3. _____ 4. _____
Key (answer)	1. Panga 2. Axe 3. Rake 4. Hoe 5. Strings 6. Wheel barrow 7. Line markers 8. Ox plough

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 2			
Occupational Title:	Rice Farmer			
Competence level:	2			
Code no.				
Test Item type:	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C1			
Date of OP:	September, 2021			
Related module:	M2.5			
Time allocation:	3 minutes			

Test Item	Give four effects of weeds on rice growing
Answer spaces	1. 2. 3. 4.
Key (answer)	1. Competition for water 2. Reduce yields 3. Attract pests and diseases 4. Competition for soil nutrients 5. Competition for space 6. Release toxic substance to the crop 7. Reduce product quality

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 3			
Occupational Title:	RICE Farmer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C1			
Date of OP:	January, 2022			
Related module:	M1.3			
Time allocation:	2 minutes			

Test Item	The following are post-harvest handling activities except.
Answer spaces	a) Dry rice b) Thresh rice c) Winnow rice d) Clean rice

Key (answer)	A
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 4			
Occupational Title:	RICE Farmer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C1			
Date of OP:	January, 2022			
Related module:	M1.3			
Time allocation:	2 minutes			

Test Item	Which of the following activities is not carried out on nursery bed
Answer spaces	A. Watering B. Fertilizer application C. Harvesting D. Mulching

Key (answer)	C
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 3			
Occupational Title:	RICE Farmer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C1			
Date of OP:	January, 2022			
Related module:	M1.3			
Time allocation:	2 minutes			

Test Item	_____ is the practice of removing excess plants from the rice garden
Answer spaces	A. Rogueing B. Pruning C. Weeding D. Thinning

Key (answer)	D
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DIT/ QS	Test Item Database Written (Theory) Test Item- no. 5			
Occupational Title:	RICE Farmer			
Competence level:	2			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
			√	
Complexity level:	C2			
Date of OP:	January,2022			
Related module:	M1.4			
Time allocation:	4 mins			

Test item	Match the following effects with their causes in harvesting and post-harvest handling of rice
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Column A (Causes)	
1.	Not harvesting on tarpaulin
2.	Over drying
3.	Delayed harvesting
4.	Flooding at ripening stage
5.	Heaping rice for long
6.	Immature harvesting

Column B (Effects)	
A.	Stones in rice
B.	Grain develop cracks
C.	Shattering of grains
D.	Delayed ripening
E.	Discoloration of grains
F.	Breaks rice
G.	Causes bad smell
H.	Difficulty in threshing
I.	Loss in grain weight

Key (answer)	1:A, 2:F, 3:C, 4:D, 5:E, 6:I
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 6			
Occupational Title:	RICE Farmer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
				√
Complexity level:	C2			
Date of OP:	January, 2022			
Related modules:	M2.3			
Time allocation:	3 minutes			

Test Item	Arrange the procedures followed when applying chemicals in a rice garden
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Column A (chronology)	Column B (work steps) in wrong chronology order	
1.	A	Dry Equipment
2.	B	Assemble equipment
3.	C	Mix chemicals
4.	D	Read Instructions
5.	E	Wear protective gear
6.	F	Apply chemicals
7.	G	Clean equipment
8.	H	Source chemicals
9.	I	Store equipment

Key (answer)	1:G, 2:H, 3:E, 4:D, 5:C, 6:F, 7G, 8:A, 9:I
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 7			
Occupational Title:	RICE Farmer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C1			
Date of OP:	January, 2022			
Related module:	M1.3			
Time allocation:	2 minutes			

Test Item	Match the following procedures of establishing a nursery bed
-----------	--

Column A (chronology)	Column B (work steps) in wrong chronology order	
1.	A	Clear site
2.	B	Raise nursery
3.	C	Fertilizer application
4.	D	Sowing
5.	E	Mulching
6.	F	Till land
7.	G	Prepare seeds
8.	H	Water nursery
9.	I	Fence nursery bed
10.	J	Cover seeds
11.	K	Select site
12.	L	Level nursery
13.	M	Assemble tools
14.	N	Wear protective gear

Key (answer)	M, 3: N, 4: A, 5: F, 6: G, 7: B, 8: L, 9: C, 10: D, 11: J, 12: E 13: H, 14: I
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 6			
Occupational Title:	RICE Farmer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
		√		
Complexity level:	C2			
Date of OP:	January, 2022			
Related modules:	M2.2			
Time allocation:	3 minutes			

Test Item	Match the following tools with their common uses in a rice growing.
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Column A (Causes)	
1	Tape measure
2	Soil auger
3	Sprayer
4	Wheel barrow

Column B (Effects)	
A.	Taking soil sample
B.	Controlling pests
C.	Weighing soil
D.	Carry manure
E.	Applying pesticides
F.	Testing soil
G.	Measure garden

Key (answer)	1:G, 2:A,3:E, 4:D
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PERFORMANCE TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Performance Test Item- No. 7
Occupational Title:	RICE Farmer
Competence level:	3
Code no.	
Test Item:	As a rice farmer, demonstrate how you can use chemicals safely in the management of pests, diseases and weeds on a garden size of 20MX50M.
Complexity level:	P2
Date of OP:	January,2022
Related modules:	M2.3
Related skills and knowledge:	Time of spraying, Measurement skills, Types of pests and diseases, Application skills, Numeric skills, reading skills, Time management, mixing chemical skills, Manipulation and handling of tools and equipment, Health and safety measures, spraying schedule, Dangers and effects of Agrochemicals to non-target organisms, pesticide spillage control technique, compatibility of pesticide, laws and regulations, damages caused by insects and diseases, weather consideration, entry period after spraying, active ingredient in the chemical
Required tools, Materials and Equipment:	jerrycan, phone, sprayer pump, measuring cylinder, protective gear, weighing scale, Towel, Insect trap, Soap, strings, pegs, water, airtime, stationery, Drying wires, basins,
Time allocation:	4 hours
Preferred venue:	Rice garden
Remarks for candidates	<ul style="list-style-type: none"> • Properly wear protective gear • Materials to be used should be available before the assessment begins.
Remarks for assessors	<ul style="list-style-type: none"> • Provide materials, tools, and equipment to be used before assessment begins.

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
1	Preparation for task	<ul style="list-style-type: none"> Prepare tools, equipment and materials 		2
		wore protective gear <ul style="list-style-type: none"> Boots Overall/over coat Gloves Head gear Mask/Respirator Eye goggles 		2
2	Mixing Chemical	Demarcated area for spraying	2	
		Read instructions	1	
		Poured water in the pump		1
		Half-filled pump was observed		1
		Measured chemical and added in the pump	2	
		Chemical mixture observed		1
		Shook the mixture	2	
		Thoroughly mixed Chemical observed		1
		Topped up pump with water	1	
		Required level observed		1
		Covered pump	1	
		Tightly covered pump observed		1
3.	Spraying crop	Lifted pump to the back	1	
		Tightened belt observed		1
		Move the pumping lever back and forth	1	
		Pump to build pressure	1	
		Direct nozzle to the crop	1	
		Pressed the trigger to release the chemical on the crop	1	
		Spray observed		1

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
		Spray crop following direction of wind	2	
4.	Post spraying activities	Removed pump from the back		1
		Properly disposed off waste		2
		Cleaned tool, materials and equipment	1	
		Cleaned tools and equipment observed		2
		Dried equipment		1
		Stored equipment	1	
		Safely stored equipment observed		2
5.	Keep Documentation	Record area sprayed		1
		Record pest sprayed		1
		Record cost involved		1
		Record date of next spraying		1
		Record supplier and source		1
		Record type of chemical used		1
	Total		18	26
	MAXIMUM SCORE (Y)	$\frac{X}{Y} \times 100$	44	

4.0 ATP- PART IV **INFORMATION ON REVIEW PROCESS**

4.1 Occupational Profile Development (July 2020)

The Assessment and Training Package was exclusively reviewed by job practitioners of the Rice farmer occupation, Secondary School Teachers who double as examiners of Agriculture with the Uganda National Examinations Board (UNEB) and Curriculum Development Specialists working with the National Curriculum Development Centre (NCDC).

The job expert panel, guided by UVQF Facilitators reviewed duties and tasks performed and provided additional generic information regarding the occupation.

4.2 Training Module Development (July 2020)

Based on the reviewed Occupational Profile for Rice farmer of July 2020, Training Modules were reviewed by job practitioners, guided by UVQF Facilitators.

4.3 Test Item Development (July 2020)

Based on the reviewed Occupational Profile for Rice farmer of July 2020, and Training Modules of July 2020, Test Items were reviewed by combined panels of Teachers and job practitioners, guided by UVQF Facilitators.

4.4 Methodology

The rationale for the Assessment and Training Package development was to link Vocational Education and Training to the real world of work by bridging Occupational Standards to Training Standards through industry-led Standards-Based Assessment.

Active participation of both teachers and job practitioners' panels consolidated the development philosophy.

The panelists worked as teams in workshop settings complemented by off-workshop field research and literature review activities including international benchmarking.

4.5 Development Panels

The participating panels of Job Practitioners required at for the review exercise were constituted by members from the following organizations:

No.	Name	Institution/ Organization
1.	Mrs. Naiga Zulaika	MOEs
2.	Mr. Golomba Wilber	NCDC
3.	Mr. Mityelo Bernard	UNEB
4.	Mr. Isooba Jimmy	Iganga SS
5.	Mr. Okiria Pius	Soroti Secondary School
6.	Mrs Nabirye Harriet	Gombe SS
7.	Mr. Nkwatsibwe Innocent	Ntare School
8.	Mr. Okello Norbert	St Joseph Colledge Luyibi
9.	Mr Kabasa Nasan	IFDC-Namutumba
10.	Mr Mpaulo Joel	Idha Tujje Agencies
11.	Mr. Ebong Andrew	Bongomin group Ltd
12.	Mr.Asiimwe Emmanuel	Agric.Officer Nyanga s/c

4.6 Facilitator team

This Assessment and Training Package was developed by a Facilitator team listed below:

1. **Team Leader** – Ms. Mukyala Ruth, Ag Deputy Director/QS Dept., DIT
2. **Facilitators (Development process)** – Ms. Asiiimwe Janet and Mr. Atukwatirire Alexander
3. **Data Entrants-** Ms. Namateefu Reanyous and Ms. Tibesigwa Rachael
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