



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Directorate of Industrial Training



**Assessment and Training
Package
For a
LEGUME FARMER**

Qualification Level: 1

Occupational Cluster: Agriculture

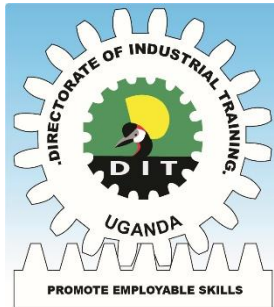
August 2020

Developed by:

**Qualifications Standards Department
Uganda
Directorate of Industrial Training**

Supported by:

Government of



Assessment and Training Package

For a

LEGUME FARMER

Qualification Level: 1

Occupational Cluster: Agriculture

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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 centres.
- (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.
- (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;

- (a) Define occupational standards in the world of work.
- (b) Define assessment standards.
- (c) Award 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.
- (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 recognised 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) Harmonising 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.
- (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 organises 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 Kajubi Report (1989) and the Uganda Government White Paper on Education Review (1992) emphasised that the Uganda Secondary School Education should be vocationalised.

The World Bank Report on education in Uganda 2007 observed that although Uganda was experiencing steady economic growth on one hand, the secondary education curriculum was inadequately addressing the social and economic needs of the country on the other. The Report further noted that it is not the very top academic cadres that contribute most to the growth of the GDP but rather the competent middle level technicians that are flexible and technologically literate that the economy needs in the labour market at all levels.

Correspondingly, the NDP III 2020/21- 2024/5 highlights (i) low labour productivity (ii) high youth unemployment (38%) (iii) low transition rates from training to employment (35%) as some of the key challenges to Human Capital Development in Uganda.

In order to overcome these challenges, NDP III 2020/21- 2024/5, under objective 2 peaks the need to train the learners for the urgently needed skills and mainstream a dual education and training system. This paved way for the development of the lower secondary school vocational curriculum which supports both academic and vocational training.

The afore is in line with the Uganda Vision 2040. Under section 261, it emphasises that learners will be accorded opportunities to excel in the skills areas they are placed into. These will range from sports and cut to technical and vocational training. Hitherto, section 262 clearly states that the entire education system will be changed to emphasise practical skills, attitude and moral values.

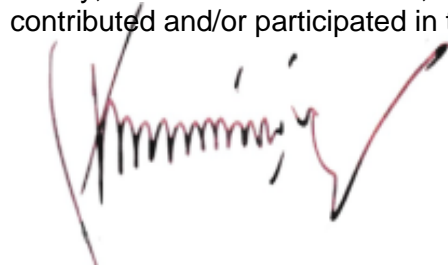
Government of Uganda through the Ministry of Education and Sports rolled out the New Lower Secondary Curriculum in secondary schools countrywide during the first term of the academic year 2020. The overall goal of this curriculum is to produce graduates with employable skills and who are competitive in the labour market. It should be emphasised that vocational training will produce graduates who are employable. In the New curriculum, emphasis will be on equipping learners with employable skills and competencies. This will enable learners perform the requisite duties of the specified occupations. This is the reason why the lower secondary school vocational curriculum was tailored to the assessment requirements of the world of work.

Reading from the Curriculum Framework page 12, it is stated that the learners will be assessed by DIT. Upon assessment and certification, the graduates will be employable and competitive in the labour market. It's against this background that DIT, within its mandate vested in the BTVET Act, 2008 comes on board to take the lead in the development of the requisite Assessment and Training Packages (ATPs) for the various occupations that will be assessed under the Lower Secondary Curriculum.

The ATPs 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 and Training Package for training, assessment and certification of a **LEGUME FARMER QUALIFICATION LEVEL I.**

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



Alex Kakooza
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 LEGUME FARMER.** This Occupational Profile which was reviewed by Legume farmers practicing in the world of work mirrors the duties and tasks that Legume farmers are expected to perform.
- 0.2 **PART II: Training Modules** in the form of guidelines to train Legume 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 LEGUME FARMER. These assessment instruments were reviewed jointly by job practitioners (Legume farmers) and instructors based on the occupational profile and training modules.
- 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.**
- 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 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 centres as well as companies can accommodate more learners 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).

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

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

DIT takes responsibility of any shortcomings that might be identified in this publication and welcomes suggestions for effectively addressing the inadequacies. The suggestion can be communicated to DIT through P.O. Box 20050, Kampala or through email uvaf.dit@gmail.com.



Patrick Byakatonda
Ag Director

Acknowledgement

The Qualifications Standards Department of DIT acknowledges the valuable contributions to the review of this Assessment and Training Package by the following persons, Institutions and organisations:

- 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 and instructors of Legume farming from various secondary schools.
- Agriculture Curriculum Specialists from NCDC.
- Examination specialists from UNEB.
- The facilitators involved in guiding the development panels in their activities.
- The Government of Uganda for financing the development of this ATP.

Abbreviations and Acronyms

A&C	Assessment and Certification
ATP	Assessment and Training Packages
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
TVET	Technical, Vocational, Education and Training
TIB	Test Item Bank
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 work2. focus is on 'doing something well'3. assessment is based upon industry work standards, and4. 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)	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/assignments.
Modules	Modules are part(s) of a whole 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	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 which define what a person is supposed to do which becomes the reference points for developing assessment standards and modular curricula.

Qualification

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

Tasks

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. *(Also see: Duty)*

1.0 ATP-PART I

Occupational Profile for a LEGUMEFARMER

- 1.1 The OCCUPATIONAL PROFILE (OP) for a "Legume Farmer" below defines the **Duties** and **Tasks** a competent a Legume 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.

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 developing this Occupational Profile for a LEGUME FARMER are listed on the following page.

Expert Panel

Busingye Peace Sabiti
MoES/G&C

Kyozaire Paul
Uganda Martyrs High School-Lubaga

Naiga Zulaika
MoES

Asiimwe Justine Byabugana
St. Anne's Kihani/UNEB
Examiner

Okurut Samuel
Sseke Sec. School

Kamugisha James
Nsanja Mixed Farm

**Kikomeko Richard
Ssentenza**
Our Lady of Good Counsel
SSS-Gayaza

Nabisaawe Monica
Dande Mixed Farm

Nameere Hamidah
Nyondo Farm

Lwasampijja Michael
Harold Mixed Farm

Katende Enock
Milwa Farm, Masaka

Kabuye Godfrey
Mayuge Mixed Farm

Facilitators
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Directorate of Industrial Training

Kirinya Steven
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Mukyala Ruth. E
Directorate of Industrial Training

Funded by
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

"LEGUME FARMER"

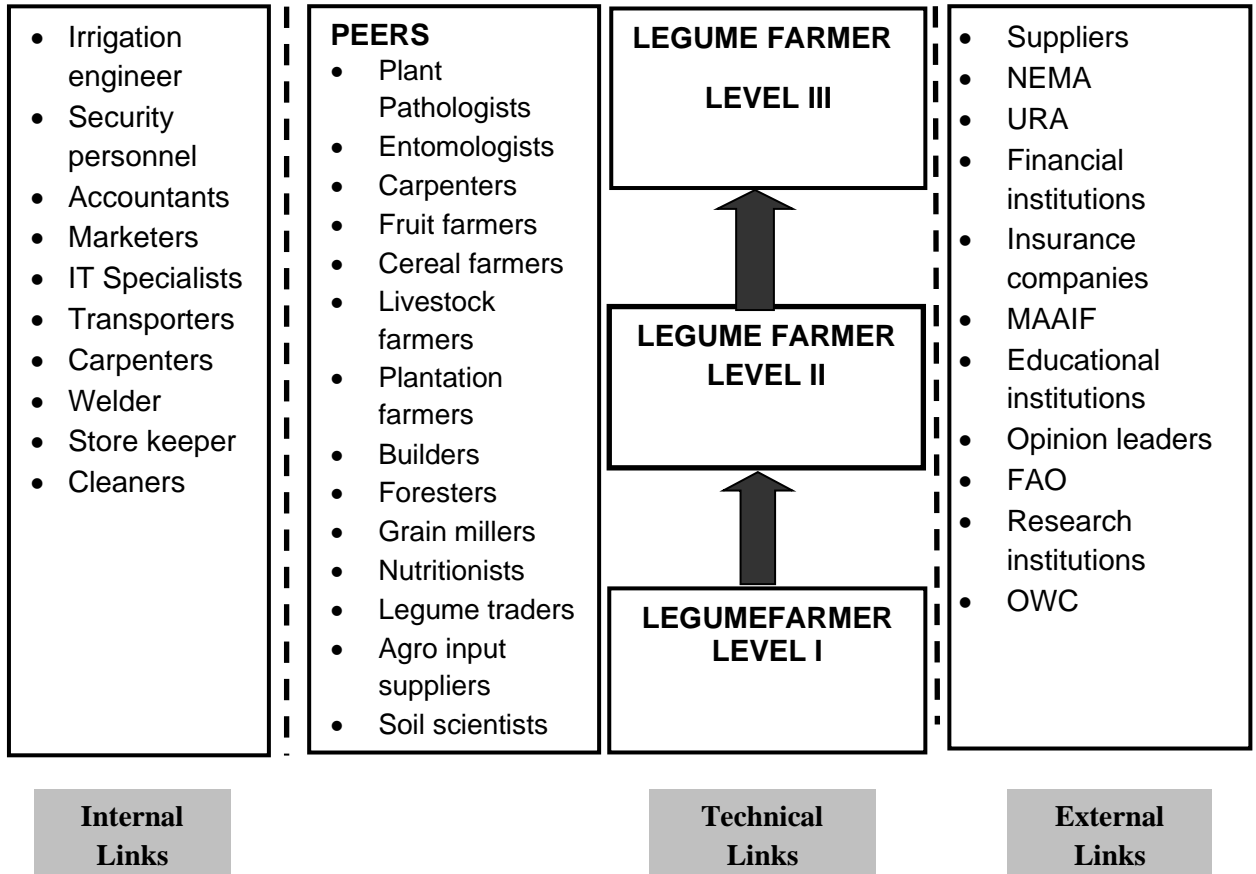
**Developed by: Qualifications Standards
Department of Industrial Training**

Dates of workshop: 1st– 11th September, 2020

NOMENCLATURE FOR THE OCCUPATION OF LEGUME FARMER

Definition: A Legume Farmer Is a person who grows legumes for domestic and commercial purposes.

JOB ORGANISATION CHART FOR A LEGUME FARMER



LEVEL DESCRIPTORS

A Level I Legume Farmer: Is a person who grows a specific legume type using rain fed basic agronomic production practices

A Level II Legume Farmer: Is a person who grows a variety of leguminous crops using irrigation technology to produce legumes throughout the year

A Level III Legume Farmer: Is a person who carries out advanced agronomic legume growing practices including variety improvement.

Duties and Tasks

A. PLAN ALEGUME FARM ENTERPRISE	A1 Carry out feasibility study	A2 Carry out market survey	A3 Prepare work plan
	A4 Prepare budget	A5 Identify tools, equipment, materials and implements	A6 Determine farm inputs
	A7 Prepare work schedules	A8 Participate in designing farm lay out	A9 Mobilise financial resources

B. ESTABLISH LEGUME GARDEN	B1 Select site	B2 Prepare land	B3 Demarcate land
	B4 Select seeds	B5 Prepare planting materials	B7 Plant seeds

C. MAINTAIN LEGUME GARDEN	C1 Control pests and diseases	C2 Weed crop garden	C3 Irrigate crops
	C4 Apply fertilisers	C5 Thin crops	C6 Fill gaps
	C7 Label garden		

D. PERFORM HARVEST AND POST HARVEST ACTIVITIES	D1 Clean stores	D2 Prepare harvesting tools and equipment	D3 Harvest crop
	D4 Dry produce	D5 Thresh produce	D6 Winnow products
	D7 Sort produce	D8 Dress seeds	D9 Store produce

E. MARKET LEGUME PRODUCTS	E1 Carry out market research	E2 Grade produce	E3 Weigh products
	E4 Package products	E5 Brand products	E6 Standardize products
	E7 Price products	E8 Advertise products	E9 Transport products

F. PERFORM ADMINISTRATIVE TASKS	F1 Pay bills	F2 Procure farm inputs	F3 Keep records
	F4 Attend meetings	F5 Manage human resources	F6 Perform bench marking
	F7 Communicate with stake holders	F8 Manage finances	F9 Network with peers and other stakeholders

G. PERFORM OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION PRACTICES	G1 Administer first aid	G2 Sensitise co-workers on key health issues	G3 Manage waste
	G4 Observe OHSE rules and regulations	G5 Display safety signs	G6 Observe hygiene and sanitation
	G7 Perform firefighting	G8 Wear protective gear	

Additional Information

Generic Knowledge & Skills

1. Qualities of a good site
2. Soil fertility
3. Quality water
4. Land terrain
5. Dimensions and measurements
6. Fertilisers and applications
7. Sterilisation
8. Staking
9. Harvesting techniques
10. Transportation of legumes
11. Determination of profits and losses
12. Waste management
13. Garden tools and equipment usage
14. Crop rotation
15. First aid administration
16. Sterilising tools
17. Budgeting
18. Legume varieties and growth characteristics
19. Planning skills
20. Resource mobilisation
21. Sowing techniques
22. Skills of making shades
23. Skills of watering
24. Spraying
25. Types and chemicals and their applications in legumes
26. Methods of applying chemicals
27. Skills of planting
28. Weeding methods
29. Thinning
30. Sorting and grading
31. Cleaning, drying and cooling produce
32. Packaging
33. Record keeping
34. Labeling
35. Pricing
36. Advertising
37. Selling techniques
38. Communication skills
39. Types of fertilisers
40. Pesticides, fungicides herbicides and their application.

Tools, Equipment and materials

1. Hand hoes
2. Spade
3. Slashers
4. Wheelbarrows
5. Trowels
6. Rake
7. Watering can
8. Polythene sheet
9. Poles (wooden and metallic)
10. Hand saws
11. Hummers
12. Nails
13. Fibre mats
14. Gumboots
15. Spikes (for labeling)
16. Hand gloves
28. Timber
29. Stones
30. Sand
31. Paint
32. Saw dust
33. Black soil
34. Brush
35. Knife
36. Forked hoes
37. Ploughs
38. Washroom
39. Mother garden
40. Drainage channels
41. Tractors
42. Seeds/seedlings
43. Field crates
44. Sacks
45. Planters
46. Herbicides
58. Tape measures
59. Hormones
60. Syringes
61. Fumigants
62. Buckets
63. Jerrycans
64. Pack house crates
65. Pallets
66. Sorting tables
67. Weighing scales
68. Books
69. Pens
70. Markers
71. Sprayer
72. Stationery
73. Thermometers
74. First aid kit
75. Water
76. Measuring cylinder

17. Knapsack sprayer	47. Pesticides	77. Disposal pits
18. Masks	48. Fertilisers	78. Incinerators
19. Overalls	49. Fungicides	79. Soaking containers
20. Axe	50. Bicycles	80. Plastic crates
21. Wires	51. Chain/barbed wire	81. Tarpaulins
22. Ropes	52. Water tank	82. Notice board
23. Dry grass	53. Ropes	83. Detergents
24. Pegs	54. Strings	84. Mobile phones
25. Shades	55. Stores	85. Computer
26. Iron sheets	56. Trucks	86. Radio
27. Bricks	57. Brochures	87. Television

Attitudes/Traits/Behavior	Future Trends and Concerns
1. Honest and transparent	1. Expansion of market
2. Tolerant	2. Variety improvement
3. Active	3. Use of computers
4. Hard working	4. Advanced technology i.e. internet, websites, etc.
5. Punctual	5. Exportation
6. Realistic	6. Guidance and counseling
7. Social	7. Use of improved machines e.g. processing machines
8. Able to predict	8. Legume farmer groups formation
9. Organised	9. Price fluctuations
10. Respectful	10. Need for training in legume farmer
11. Confident	11. Need for stores
12. Trustworthy	12. Value addition
13. Dedicated	13. Environmental degradation
14. Team player	14. Unreliable rainfall
15. Disciplined	15. Climate change
16. Enthusiastic	16. Need to visit model farmers
17. Creative and innovative	17. Lack of capital
18. Resourceful	18. Taxes of legume produce needs to be reduced
19. A good listener	19. Need for specialists to give technical advice to farmers
20. Result oriented	20. Pests and diseases outbreaks
21. Trainable	21. Shortage of land
22. Strategic	22. Lack of legume breeders
23. Researcher	
24. Carries out SWOT analysis	

2.0 ATP – PART II

Training Modules for a LEGUME 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 Legume 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 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 learners 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 LEGUME FARMER LEVEL 1?

A Level I Legume Farmer: Is a person who grows a specific legume type using rain fed basic agronomic production practices.

TRAINING MODULES FOR A LEGUME FARMER UVQ LEVEL 1

Code	Module Title	Average duration	
UE/LF/M1.1	Establish a Legume Garden	120	3
UE/LF/M1.2	Maintain Legume Crops	160	4
UE/LF/M1.3	Perform Harvest and Post-harvest Handling	120	3
UE/LF/M1.4	Establish Legume Farming Enterprise	160	4
Summary	4 Training Modules	560 Hours	14 Weeks

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 recognised 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.

Code	UE/LF/M1.1
Module title	M1.1: Establish a Legume Garden
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Légume Farmer UVQ 1)
Qualification Level	1
Module purpose	At the end of this module, a trainee shall be able to establish a legume garden
Learning-Working Assignments (LWAs)	<p>LWA 1/1: Prepare Land</p> <p>LWA 1/2: Establish Farm Structures</p> <p>LWA 1/3: Plant Legumes</p> <p>LWA 1/3: Perform Occupational Health, Safety and Environmental Precautions</p> <p><u>Note:</u></p> <ol style="list-style-type: none"> <i>The learning exercises may be repeated until the trainee acquires targeted competence.</i> <i>The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning assignment</i>
Related Practical Exercises (PEXs)	<p>LWA 1/1: Prepare Land</p> <p>PEX 1.1: Select site</p> <p>PEX 1.2: Clear site</p> <p>PEX 1.3: Plough land</p> <hr/> <p>LWA 1/2: Establish Farm Structures</p> <p>PEX 2.1: Construct store</p> <p>PEX 2.2: Fence land</p> <p>PEX 2.3: Construct sanitary facilities</p> <p>PEX 2.4: Construct workers houses</p> <p>PEX 2.5: Construct office</p> <p>PEX 2.6: Construct water reservoirs</p> <p>PEX 2.7: Construct access roads</p> <hr/> <p>LWA 1/3: Plant Legumes</p> <p>PEX 3.1: Select seeds</p> <p>PEX 3.2: Select tools</p> <p>PEX 3.3: Test seed germinability</p> <p>PEX 3.4: Treat seeds</p> <p>PEX 3.5: Dig holes</p> <p>PEX 3.6: Place seeds</p> <p>PEX 3.7: Cover seeds</p> <p>PEX 3.8: Label garden</p> <p>PEX 3.9: Clean tools</p> <p>PEX 3.10: Store tools</p>

	<p>LWA1/4: Perform Occupational, Safety and Environmental Practices</p> <p>PEX 4.1: Wear personnel protective gear PEX 4.2: Administer first aid PEX 4.3: Observe OHSE rules and regulations PEX 4.4: Manage waste PEX 4.5: Observe bio-safety measures</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. e.g. wear protective gears
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"> • Agronomical practices • Seed testing methods • Sterilisation of growth media • Knowledge on soil and water conservation • Geographical aspects of the area • Knowledge on classification of legumes • Challenges involved in legume growing • Importance of growing legumes • Legume growth requirements • Planting seasons • Types of growth media and their characteristics • Record keeping • Types of legume pests and diseases
Average duration of learning	<p>120hours (15 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 5 days of occupational theory and • 10days of occupational practice
Suggestions on organisation 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 the established regulations by a recognised assessment body using related practical and written test items from item bank

Minimum required tools/ equipment/ implements or equivalent	hand hoes, forked hoes, slashers, pangas, planting lines, tape measure, sickle, watering can, wheelbarrow, dibber, hand trowel string/fibre, shovel, bucket, house pipe, spade, hammer, axe, water drum, sieves, knives
Minimum required materials and consumables or equivalent	water, tetrazolium chloride salt, fertiliser (inorganic and organic), building materials, pesticides(assorted), potassium permanganate, cotton wool, water, seeds,
Special notes	

Code	UE/LF/M1.2
Module title	M1.2: Maintain Legume Crops
Related Qualification	Part of Uganda Vocational Qualification (Legume Farmer UVQ 1)
Qualification Level	1
Module purpose	At the end of this module, a trainee shall be able to raise legume crops for higher yields
Learning-Working Assignments (LWAs)	<p>LWA 2/1: Control Pests and Diseases</p> <p>LWA 2/2: Apply soil amendments</p> <p>LWA 2/3: Control Weeds</p> <p>LWA 2/4: Stake Crops</p> <p>LWA 2/5: Perform Occupational Safety, Health and Environmental Protection Practices</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The learning exercises may be repeated until the trainee acquires targeted competence. 2. The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning assignment
Related Practical Exercises (PEXs)	<p>LWA 2/1: Control Pests and Diseases</p> <p>PEX 1.1: Identify pests and diseases</p> <p>PEX 1.2: Select control measure</p> <p>PEX 1.3: Apply control measure</p> <p>PEX 1.4: Make follow up</p> <hr/> <p>LWA 2/2: Apply Soil Amendments</p> <p>PEX 2.1: Test soils</p> <p>PEX 2.2: Determine plant nutrient requirements</p> <p>PEX 2.3: Select soil amendment</p> <p>PEX 2.4: Determine method of application</p> <p>PEX 2.5: Apply recommended quantities</p> <p>PEX 2.6: Monitor crop response</p> <hr/> <p>LWA 2/3: Control Weeds</p> <p>PEX 3.1: Identify weeds</p> <p>PEX 3.2: Select tools and equipment</p> <p>PEX 3.2: Determine control method</p> <p>PEX 3.3: Remove weeds</p>

	<p>LWA 2/4: Stake Crops PEX 4.1: Install support PEX 4.2: Trellis crops</p> <p>LWA 2/5: Perform Occupational Safety, Health and Environmental Protection Practices PEX 5.1: Observe OHSE rules and regulations PEX 5.2: Maintain hygiene and sanitation PEX 5.3: Manage chemicals PEX 5.4: Manage waste PEX 5.5: Clean working area PEX 5.6: Administer first aid PEX 5.7: Perform firefighting PEX 5.8: Display safety signs PEX 5.9: Sensitise workers on health and safety measures PEX 5.10: Wear protective gear</p>
<p>Occupational health and safety</p>	<p>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</p>
<p>Pre-requisite modules</p>	<p>None</p>
<p>Related knowledge/ theory</p>	<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"> • Seed preparation • Soil erosion and control • Fertiliser types and application • Seed testing • Land preparation • OHSE precautions • Plant spacing • Timely planting • Planting materials and their preparation/processing • Nature of soils • Water quality and techniques of watering • Equipment for transporting seedlings • Tools and implements for plant preparation • Farm structure construction • Pests and diseases control
<p>Average duration of learning</p>	<p>160 hours (20days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 05 days of occupational theory and • 15 days of occupational practice

Suggestions on organisation 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 the established regulations by a recognised assessment body using related practical and written test items from item bank
Minimum required tools/ equipment/ implements or equivalent	hoe, gumboots, overalls, spray pump, basins, wheelbarrows, strings, watering can, jerrycans, water tank/drums, seed boxes/ tray, sieve, tape-measure, buckets, pruning shear, knives, razorblades, hammer, spade, shovel, stools, mattocks, pegs, rulers, secateurs
Minimum required materials and consumables or equivalent	gloves, match boxes, herbicides, water, seeds, palm leaves, papyrus reeds, fertiliser/manure firewood, nails, herbicides, pesticides
Special notes	

Code	UE/LF/M1.3
Module title	M1.3: Perform Harvest and Post-Harvest Handling
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Legume Farmer UVQ 1)
Qualification Level	1
Module purpose	By the end of this module, a trainee shall be able to harvest and handle produce.
Learning-Working Assignments (LWAs)	<p>LWA 3/1: Harvest Produce</p> <p>LWA 3/2: Perform post-harvest activities</p> <p>LWA 3/3: Perform Occupational Health and Safety Environment Protection Practices</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The learning exercises may be repeated until the trainee acquires targeted competence. 2. The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning assignment
Related Practical Exercises (PEXs)	<p>LWA 3/1: Harvest Produce</p> <p>PEX 2.1: Prepare tools and equipment</p> <p>PEX 2.2: Uproot plants</p> <p>PEX 2.3: Pluck pods</p> <p>PEX 2.4: Transport produce</p>
	<p>LWA 3/2: Perform Post-Harvest Activities</p> <p>PEX 3.1: Sort produce</p> <p>PEX 3.2: Clean produce</p> <p>PEX 3.3: Dry produce</p> <p>PEX 3.4: Thresh produce</p> <p>PEX 3.5: Winnow produce</p> <p>PEX 3.6: Grade produce</p> <p>PEX 3.7: Weigh produce</p> <p>PEX 3.8: Dress seeds</p> <p>PEX 2.9: Pack produce</p> <p>PEX 2.10: Brand produce</p> <p>PEX 2.11: Clean stores</p> <p>PEX 2.12: Store produce</p>
	<p>LWA 3/3 : Perform Occupational Health, Safety and Environmental Protection Practices</p> <p>PEX 3.1: Manage waste</p> <p>PEX 3.2: Administer first aid</p> <p>PEX 3.3: Wear protective gear</p> <p>PEX 3.4: Observe hygiene and sanitation</p> <p>PEX 3.5: Sensitise workers on health issues</p>

	<p>PEX 3.6: Ensure bio-security PEX 3.7: Observe OHSE rules and regulations</p>
Occupational Health and Safety	<p>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</p>
Pre-Requisite Modules	<p>None</p>
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"> • Maturity indicators • Knowledge of storage of legume products • Harvesting tools and equipment usage • Storage of legumes • Chemical application • Health and safety precautions • First aid administration • Preservation of legumes • Market requirements • Sorting harvested produce • Handling legume rejects • Cleaning of seeds • Rejects of legume products
Average Duration of Learning	<p>120 hours (15 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 5 day of occupational theory and • 10 days of occupational practice
Suggestions On Organisation of Learning	<p>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.</p>
Assessment	<p>Assessment to be conducted according to the established regulations by a recognised assessment body using related practical and written test items from item bank</p>
Minimum required tools/ equipment/ implements or equivalent	<p>harvest containers, knives, trays, hand gloves, transport means, secateurs, gumboots, harvesting bags, refrigerators, tarpaulins, first aid box, strainer/sieve, wheelbarrow, racks, winnowing bucket, storage facility</p>
Minimum required materials and consumables or equivalent	<p>water, overalls, aprons, polythene sheets, strings, ropes, water, masking tapes, record books, disinfectants/ fumigants, pesticides, bags, stickers, storage materials</p>
Special Notes	

Code	UE/LF/M1.4
Module title	M1.4: Establish Legume Farming Enterprise
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Legume Farmer UVQ 1)
Qualification Level	1
Module purpose	By the end of this module, a trainee shall be able to establish and manage a profitable legume enterprise.
Learning-Working Assignments (LWAs)	<p>LWA 4/1: Plan a Legume Enterprise LWA 4/2: Market Legume Products LWA 4/3: Perform Basic Administrative Tasks LWA 4/4: Perform Occupational Health Safety and Environmental Protection Practices</p> <p><u>Note:</u></p> <ol style="list-style-type: none"> 1. <i>The learning exercises may be repeated until 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 assignment</i>
Related Practical Exercises (PEXs)	<p>LWA 4/1: Plan a Legume Enterprise PEX 1.1: Conduct a feasibility study PEX 1.2: Select farm site PEX 1.3: Determine legume variety PEX 1.4: Source for farm inputs PEX 1.5: Identify labour requirements PEX 1.6: Determine production methods PEX 1.7: Develop site structural plan PEX 1.8: Prepare financial plan PEX 1.9: Prepare budget PEX 1.10: Prepare procurement plan</p> <p>LWA 4/2: Market Legume PEX 2.1: Sort legumes PEX 2.2: Grade legumes PEX 2.3: Pack legumes PEX 2.4: Weigh legumes PEX 2.5: Brand legumes PEX 2.6: Bulk legumes PEX 2.7: Store legumes PEX 2.8: Conduct market research PEX 2.9: Price legumes PEX 2.10: Advertise legumes</p>

	<p>PEX 2.11: Transport legumes PEX 2.12: Sell legumes</p> <p>LWA 4/3: Perform Basic Administrative Tasks</p> <p>PEX 3.1: Manage finances PEX 3.2: Recruit workers PEX 3.3: Train workers PEX 3.4: Supervise works PEX 3.5: Motivate workers PEX 3.6: Attend meetings PEX 3.7: Keep records PEX 3.8: Remunerate workers PEX 3.9: Communicate with stakeholders PEX 3.10: Manage conflicts</p> <p>LWA 4/4: Perform Occupational Health Safety and Environmental Protection Practices</p> <p>PEX 4.1: Administer first aid PEX 4.2: Train other workers on health and safety issues PEX 4.3: Wear protective gear PEX 4.4: Observe health and safety regulations PEX 4.5: Manage waste PEX 4.6: Store tools and equipment PEX 4.7: Maintain hygiene and sanitation PEX 4.8: Practice firefighting PEX 4.9: Sensitise workers on occupational hazards</p>
Occupational health and safety	<p>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.</p>
Pre-requisite modules	<p>None</p>
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"> • Marketing techniques • Pricing of legumes • Preservation • Record keeping • Legume preservation methods • Market trends • Methods of harvesting legumes • Farm records management • Environmental protection precautions • Computer literacy

	<ul style="list-style-type: none"> • Office practice • Communication skills • Financial literacy
Average duration of learning	<p>160 hours (15 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • <i>5 days of occupational theory and</i> • <i>10 days of occupational practice</i>
Suggestions on organisation of learning	<p>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.</p>
Assessment	<p>Assessment to be conducted according to the established regulations by a recognised assessment body using related practical and written test items from item bank</p>
Minimum required tools/ equipment/ implements or equivalent	<p>labels, notice board, refrigerator, weighing equipment, ICT equipment, phones, gumboots, weighing scale, fire extinguisher, sailing machine, drying yard/bed, thresher and winnower, sieving mesh, tarpaulin, first aid kit</p>
Minimum required materials and consumables or equivalent	<p>packaging materials, water, cleaning materials, legume produces, power source, sacks, chairs, tables, stationery,</p>
Special notes	

3.0 ATP- PART III

Assessment Instruments for a LEGUME 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 reviewed 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 LEGUME FARMERS are 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	1
4.	Written (Theory)- matching with cause effect	1
5	Written(theory)-matching with work-sequence	2
6.	Performance (Practical) test items	1
	Total	9

WRITTEN TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 1			
Occupational Title:	Legume Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C2			
Date of OP:	September 2020			
Related modules:	M1.4			
Time allocation:	2 minutes			

Test Item	Name any four Legume Marketing functions
Answer spaces	(i) (ii) (iii) (iv)
Expected key (answers)	(i) Package products (ii) Weigh products (iii) Standardise products (iv) Carry out market research (v) Processing (vi) Advertise products (vii) Brand products (viii) Grade products (ix) Transport products (x) Pricing products

DIT/ QS		Test Item Database Written (Theory) Test Item- No. 02			
Occupational Title:	Legume Farmer				
Competence level:	Level 1				
Code no.					
Test Item type:	Short answer				
	Multiple choice	√			
	Matching item	Generic	Cause-Effect	Work-sequence	
Complexity level:	C2				
Date of OP:	September 2020				
Related Module:	M1.2				
Time allocation:	2 minutes				

Test Item	Which one of the following is a method of fertiliser application?
Distracters and correct answer	<ul style="list-style-type: none"> A. Broadcasting B. Gapping C. Staking D. Earthling

Key (answer)	A
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 03			
Occupational Title:	Legume Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause-Effect	Work-sequence
Complexity level:	C2			
Date of OP:	August 2020			
Related Module:	M1.4			
Time allocation:	2 minutes			

Test Item	Which one of the following market functions prevents adulteration of legume produce?
Distracters and correct answer	A. Packaging B. Weighing C. Branding D. Pricing

Key (answer)	A
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 04		
Occupational Title:	Legume Farmer		
Competence level:	Level 1		
Code no.			
Test Item type:	Short answer		
	Multiple choice		
	Matching item	Generic	Cause- Effect
			√
Complexity level:	C2		
Date of OP:	September 2020		
Related Module:	M1.4		
Time allocation:	3 minutes		

Test Item	Match the following administrative problems in column A to their effects in column B
------------------	--

Column (A) (Weaknesses)	
1	Poor motivation
2	Poor electrical wiring
3	Poor handling of chemicals
4	Poor storage
5	Lack of protective gear

Column (B) (Effects)	
A	Over taxation
B	Poor quality work
C	Fire outbreak
D	Contamination of produce
E	High profits
F	Accidents
G	Wastage of produce

Key (answer)	1-B, 2-C, 3-D, 4-G, 5-F
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DIT/ QS		Test Item Database Written (Theory) Test Item- No. 05			
Occupational Title:	Legume Farmer				
Qualification level:	Level 1				
Code no.					
Test Item type:	Short answer				
	Multiple choice				
	Matching item	Generic	Cause-Effect	Work-sequence	
		√			
Complexity level:	C1				
Date of OP:	September 2020				
Related tasks:	M1.1				
Time allocation:	5 minutes				

Test Item	Match the following tools in column A to their uses in column B
------------------	---

Column (A)[Tools]	
1	Hand hoe
2	Forked hoe
3	Tape measure
4	Pick axe
5	Garden fork

Column (B)[Uses]	
A	Cutting trees
B	Breaking hand soils
C	Turning manure
D	Removing rhizomes
E	Digging
F	Determine plant spacing
G	Threshing

Key (answer)	1-E, 2-D, 3-F, 4-B, 5-C
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DIT/ QS		Test Item Database Written (Theory) Test Item- No. 06			
Occupational Title:	Legume Farmer				
Qualification level:	Level 1				
Code no.					
Test Item type:	Short answer				
	Multiple choice				
	Matching item	Generic	Cause-Effect	Work-sequence	
		√			
Complexity level:	C1				
Date of OP:	September 2020				
Related tasks:	M1.1,1.4				
Time allocation:	3 minutes				

Test Item	March the following activities in column A with their purposes in column B
------------------	--

Column (A)[Activities]	
1	Winnowing
2	Sorting
3	Grading
4	Advertising
5	Processing

Column (B)[Purposes]	
A	Control fire outbreak
B	Ensure uniformity of produce
C	Removing foreign materials
D	Control diseases
E	Remove chaff
F	Creating awareness
G	Adding value

Key (answer)	1-E, 2-C, 3-B, 4-F, 5-G
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DIT/ QS		Test Item Database Written (Theory) Test Item- No. 07			
Occupational Title:	Legume Farmer				
Competence level:	Level1				
Code no.					
Test Item type:	Short answer				
	Multiple choice				
	Matching item	Generic	Cause- Effect	Work-Sequence	
			√		
Complexity level:	C2				
Date of OP:	September 2020				
Related Module:	M1.3				
Time allocation:	3 minutes				

Test Item	Failure to carry out the activities in column A will result in to the following effects in column B. Match them accordingly
------------------	---

Column (A) (Activities)	
1	Drying
2	Packaging
3	Winnowing
4	Grading
5	Weighing

Column (B) (Effects)	
A	Difficult to identify products
B	Rotting of seeds
C	Presence of chaff
D	Difficulty in pricing produce
E	Contamination of produce
F	Reduction in prices
G	Low consumption rate

Key (answer)	1-B, 2-E, 3-C, 4-F, 5-D,
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DIT/ QS	Test Item Database Written (Theory) Test Item- No. 08		
Occupational Title:	Legume Farmer		
Competence level:	Level 1		
Code no.			
Test Item type:	Short answer		
	Multiple choice		
	Matching item	Generic	Cause- Effect
			Work-Sequence √
Complexity level:	C3		
Date of OP:	September 2020		
Related Module:	M1.2		
Time allocation:	5 minutes		

Test Item	Arrange the following procedures of spraying pesticides on legumes
------------------	--

Column A (chronology)	Column B (work steps) in wrong chronological order	
1 st	A	Buy chemicals
2 nd	B	Mix chemicals
3 rd	C	Measure the chemicals
4 th	D	Put water in the container
5 th	E	Put the solution in the sprayer
6 th	F	Select chemical
7 th	G	Spray the crop

Key (answer)	1-F, 2-A, 3-C, 4-D,5-B, 6-E, 7-G
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DIT/ QS		Test Item Database Written (Theory) Test Item- No. 09			
Occupational Title:	Legume Farmer				
Competence level:	Level 1				
Code no.					
Test Item type:	Short answer				
	Multiple choice				
	Matching item	Generic	Cause- Effect	Work-sequence	
			√		
Complexity level:	C3				
Date of OP:	September 2020				
Related Module:	M1.1				
Time allocation:	5 minutes				

Test Item	Arrange the following steps in determining seed viability of legumes
------------------	--

Column A (Chronology)	Column B (work steps) in wrong chronological order	
1 st	A	Plant seeds
2 nd	B	Provide light and warmth
3 rd	C	Water seeds
4 th	D	Count 100 seeds
5 th	E	Put cotton wool in the container
6 th	F	Record the percentage viability of seeds [x/yX100]
7 th	G	Allow time for germination
8 th	H	Count the number of seedlings

Key (answer)	1-E, 2-D, 3-A, 4-C, 5-B, 6-G, 7-H, 8-F
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PERFORMANCE TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Performance Test Item- No.10
Occupational Title:	Legume Farmer
Competence level:	P2
Code no.	
Test Item:	Prepare a 2m by 2m piece of land and plant legume seeds
Complexity level:	P2
Date of OP:	September 2020
Related Module:	M1.1 M1.2
Related skills and knowledge:	Land preparation, spacing, seed sorting, tools and equipment usage, health and safety precautions, first aid administration and measurements
Required tools, materials and equipment:	measuring cylinder, water, gumboots, overall, gloves, masks, soap, stirring rod, slashers, pegs, panga, hand hoe, tape measure, seed container, first aid box,
Time allocation:	3 Hours
Preferred venue:	Legume Garden
Remarks for candidates	Avail protective gear Observe health, safety and environmental precautions
Remarks for assessors	Provide necessary tools equipment and materials listed above

#	Assessment criteria	Scoring guide	Max. score	
			process	Result
1	Preparation for the task	Wore protective gear - Overall - Gumboots - Head gear - Gloves		4
		Assembled tools, materials and equipment		2
2	Preparation of land	Cleared vegetation	2	
		Land free from standing vegetation observed		2
		Ploughed land	3	

#	Assessment criteria	Scoring guide	Max. score	
			process	Result
		Broke large soil clods	2	
		Fine tilth observed		2
3	Planting of legumes	Stretched planting lines along the field		2
		Marked off points for hole digging		2
		Dug holes at recommended spacing		3
		Placed 1-2seeds in a hole		2
		Covered seeds		2
4	Post planting activities	Cleaned tools		2
		Stored tools and equipment		2
		Removed personnel protective gear		1
TOTAL (Y)		Process + Results	7	26
			33	
MAXIMUM SCORE				

DIT/ QS	Test Item Database Performance Test Item- No.11
Occupational Title:	Legume Farmer
Competence level:	P2
Code no.	
Test Item:	Spray pesticides on a bean garden measuring 5m by 5m
Complexity level:	P2
Date of OP:	September 2020
Related Module:	M1.1 M1.2
Related skills and knowledge:	spraying skills, mixing of chemicals, spraying schedule, spraying method, signs and symptoms of pests and diseases, pesticides
Required tools, materials and equipment:	sprayer, measuring cylinder, water, pesticides, gumboots, overall, gloves, masks, soap, stirring rod, first aid box
Time allocation:	2 Hours
Preferred venue:	Legume Garden
Remarks for candidates	Avail protective gear Observe health, safety and environment practices
Remarks for assessors	Provide necessary tools equipment and materials listed above Provide mature bean garden

#	Assessment criteria	Scoring guide	Max. score	
			process	Result
1	Preparation before task	Wore protective gear		6
		- Water proof overall		
		- Gumboots		
		- Nose mask		
		- Head gear		
		- Gloves		
		- Eye shield		
		Assembled tools, materials and equipment		2
		Assembled spray pump		2
2	Preparation of pesticide mixture	Read manufacturer's instructions		2
		Opened the spray pump		1

#	Assessment criteria	Scoring guide	Max. score	
			process	Result
		Measured pesticides	4	
		Obtained small amount of measured water		2
		Poured water into the spray pump		1
		Poured pesticide into the spray pump	2	
		No spillage of pesticide observed		1
		Stirred the mixture to a uniform consistence	4	
		Topped up with the remaining water		3
		No spillage of water observed	1	
		Closed the sprayer		1
		Wore the spray pump	4	
		Pumped the sprayer to build pressure	4	
		3	Spraying of crops	Directed the nozzle towards crops
Pressed the trigger to allow pesticides to flow				2
Tilted the nozzle to the underside of the plant in an angle	4			
Sprayed all crops				4
Released the trigger				1
4	Post spraying activities	Removed spray pump from the back		1
		Opened the lid of the spray pump		1
		Disposed of the un used pesticides in the waste container		2
		Cleaned the spray pump		2
		Returned tools and equipment in the store		2
		Cleaned work area		3
TOTAL			26	39
Process + Results			65	
MAXIMUM SCORE				

4.0 ATP- PART IV

INFORMATION ON REVIEW PROCESS

4.1 Occupational Profile Reviewed (September 2020)

The Occupational Profile was exclusively reviewed by job practitioners who were working in the Legume farmer occupation. The job expert panel, guided by UVQF Facilitators defined duties and tasks performed and provided additional generic information regarding the occupation.

4.2 Training Module Reviewed (September 2020)

Based on the Occupational Profile for Legume Farmer of September 2020, Training Modules were reviewed by job practitioners, guided by UVQF Facilitators.

4.3 Test Item Review (September 2020)

Based on the Occupational Profile for Legume Farmer of September, 2020 and Training Modules, Test Items were reviewed by combined panels of instructors 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 instructors 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 Review Panels

The participating panels of Job Practitioners required at different stages were constituted by members from the following organisations:

No.	Name	Institution/ Organisation
1.	Busingye S. Peace	MOES (Guidance and Counseling)
2.	Kyozaire Paul	UMHS-Lubaga
3.	Lwasampijja Michael	Harold Mixed Farm
4.	Asiimwe B. Justine	St. Anne's Secondary School
5.	Kabuye Godfrey	Mayuge Mixed Farm
6.	Nabisaawe Monica	Dande Mixed Farm
7.	Kikomeko Richard	OLGC Gayaza Sec. School
8.	Kamugisha James	Nsanja Mixed Farm
9.	Nameere Hamidah	Nyondo Farm
10.	Okurut Samuel	Sseke Sec. School
11.	Katende Enock	Milwa Farm
12.	Naiga Zulaika	NCDC

4.6 Facilitator Team

This Assessment and Training Package was reviewed by a Facilitator Team listed below:

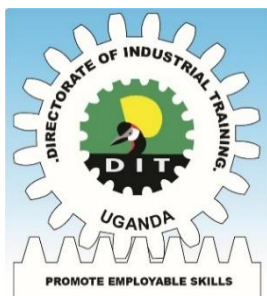
1. **Team Leader:** Ms. Mukyala Ruth Ag. DD, DIT, Qualification Standards Dept. DIT
2. **Facilitators:** Mr. Kirabira Yusuf QO, Mr. Kirinya Steven Qs, Mr. Kiswiriri Umar and Ms. Mukyala Ruth Ag. DD/ DIT.
3. **DIT Data Entrant:** Ms. Nabimanya Sharon
4. **Compiled by:** Ms. Nabimanya Sharon-Data Entrant, DIT
5. **Edited by:** Ms. Mukyala Ruth Ag. DD, DIT, Qualification Standards Dept. DIT
6. **Coordinated by:** Mr. Byakatonda Patrick, Ag. Director, DIT;

4.7 Reference time:

The Assessment and Training Package was reviewed in September- 2020 and may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

References:

1. Wallace, J. ed.2001. *Organic Field Crop Hand Book, 2nd Ed.*Ottawa
2. Ashlock, Loony.2006. *Arkansas Soy Bean Hand Book. Publication MP197, Cooperative Extension Service, University of Arkansas.*
3. *National Soybean Research Laboratory University of Illinois* [http: www.nsri.uiuc.edu/nsrihome.html](http://www.nsri.uiuc.edu/nsrihome.html)
4. *Purdue links for Arachis Hypogeal 2001*<http://www.hort.purdue.edu/newcrop/nexus/arachs.hypogpanex.htm>
5. CIAT. 2003 *Bean Improvement* <http://www.ciat.cgiar.org/beans/>.
6. *Introduction of Tropical Soil Erosion S.O Olaitan And G Lombin*Macmilla Publishers
7. *Certificate of Agriculture by Aggrey Nyanjom Jacob O. Kanyog Book 3, E.African Publishers*
8. *Agriculture principles and Practicals for Secondary Schools and Colleges Crop Production* by E.N Sabiiti, S. Katurumunda, A. Kitakweba Fountain Publishers 2010
9. *Principles and Practices of Agriculture Vol.1* Publisher Macmillan A. B Beinempaka, H.Kato, D.B Mulera, T. Obwoi-Ametto



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