



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Directorate of Industrial Training



**Assessment and Training
Package**

**For a
FRUIT PROCESSOR**

Qualification Level: 1

**Occupational Cluster: Nutrition and Food
Technology**

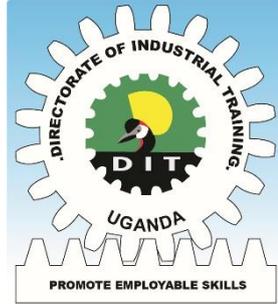
September 2020

Developed by:

**Directorate of Industrial Training
Qualifications Standards Department**

Funded by:

Government of Uganda



Assessment and Training Package

For a FRUIT PROCESSOR

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Technology**

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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.

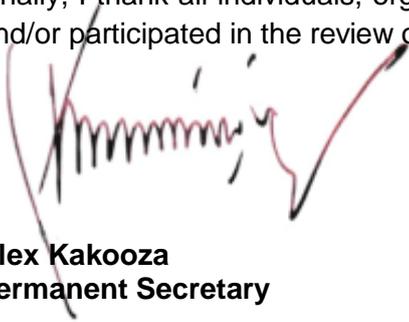
Government of Uganda through the Ministry of Education and Sports rolled out the New Lower Secondary Curriculum in secondary schools countrywide during the first term of the academic year 2020. The overall goal of this curriculum is to produce graduates with employable skills and who are competitive 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 **FRUIT PROCESSOR QUALIFICATION LEVEL 1**.

Finally, I thank all individuals, organisations and review partners who have contributed and/or participated in the review 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 FRUIT PROCESSOR.** This Occupational Profile which was reviewed by Fruit Processors practicing in the world of work mirrors the duties and tasks that Fruit Processors are expected to perform.
- 0.2 **PART II: Training Modules** in the form of guidelines to train Fruit Processors 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 FRUIT PROCESSOR. These assessment instruments were reviewed jointly by job practitioners (Fruit Processors) 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 fruit processor from various secondary schools.
- Nutrition and Food Technology 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
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 / CBET	<p>(Occupational) competence is understood as the ability to perform tasks common to an occupation at an acceptable level.</p> <p>Competence-based education and training means that programs:</p> <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 define what a person is supposed to do in performance terms. It also contains generic information regarding related knowledge and skills, attitudes/behaviour, 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 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)

ATP-PART I

Occupational Profile for a FRUIT PROCESSOR

- 1.1 The OCCUPATIONAL PROFILE (OP) for “A FRUIT PROCESSOR” below defines the **Duties** and **Tasks** a competent FRUIT PROCESSOR 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 panellists defined 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 panellists, facilitators and coordinators who participated in developing this Occupational Profile are listed on the following page.

The DACUM-method was used. DACUM is an acronym for Develop a Curriculum

Job Expert Panel

Nalubega Christine
Mengo Senior School

Mutonerwa J.K
Bishops Senior Mukono

Mwanga Cleisey.E
Bweranyangi G.S.S

Wasswa Joseph
Makerere University

Tino Xavier Grace
Iganga Secondary School

Ajambo Lucy
Gulu Secondary School

Jjuuko Deo
Stella Maris c. Nsube

Musoke Phillip
Soroti Fruits Limited

Kasirye Denis
Brisk Beverages(u) LTD

Kabasingo Binta Theopista
Kings College Buddo

Businge Peace
Ministry of Education and Sports

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Ganafa Roland
Directorate of Industrial Training

Funded by
Government of Uganda



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Directorate of Industrial Training

Occupational Profile

For a

"FRUIT PROCESSOR"

Developed by: Qualifications Standards
Directorate of Industrial Training

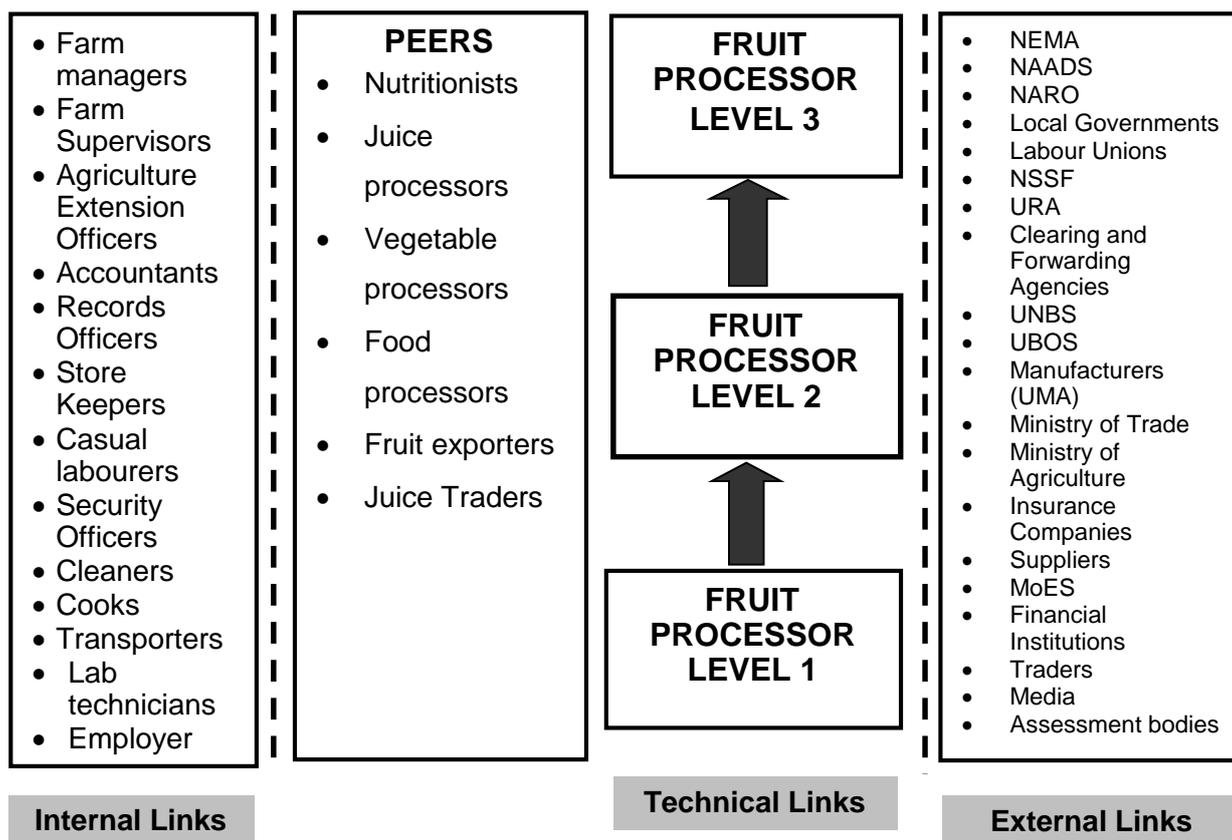
Dates of workshop: 14th – 18th September, 2020

NOMENCLATURE FOR THE OCCUPATION OF FRUIT PROCESSOR

Definition:

A Fruit Processor is a person who adds value to fruits using the available technology by processing, preserving packing and branding for domestic and commercial purposes.

JOB ORGANISATION CHART FOR FRUIT PROCESSOR



Description for the levels in the occupation of a 'Fruit processor'

UVQF Level I Is a person who adds value to fruits with minimum preservation methods like drying, freezing, heating, adding chemicals (sugar, salt, acids)

UVQF level II Is a person who adds value to fruits and preserves them using moderate preservation methods and technologies like oil packing, use of chemicals (sodium benzoate, potassium sorbate, sorbic acid and benzoic acid)

UVQF Level III Is a person who adds value to fruits and preserves them by using advanced technologies and methods like, pasteurising, waxing, canning, sterilisation and modified atmosphere for extended shelf life.

Duties and Tasks

A. PLAN FRUIT PROCESSING ENTERPRISE	A1 Conduct market research	A2 Select site	A3 Identify source of raw materials
	A4 Make a production plan	A5 Prepare financial plan	A6 Prepare structural plan
	A7 Determine source of human capital	A8 Prepare work schedule	A9 Perform risk assessment
B. ESTABLISH A FRUIT PROCESSING PLANT	B1 Acquire land	B2 Erect plant structures	B3 Acquire machinery
	B4 Demarcate processing plant	B5 Procure raw materials	B6 Store raw materials
	B7 Provide security		
C. PROCESS FRUITS	C1 Sort fruits	C2 Grade fruits	C3 Weigh fruits
	C4 Clean fruits	C5 Perform size reduction	C6 Preserve fruits
	C7 Package fruits		
D. PERFORM QUALITY CONTROL	D1 Prepare quality assessment equipment	D2 Perform microbial analysis	D3 Perform organoleptic tests
	D4 Perform physical test	D5 Perform chemical test	D6 Correct defects
E. MARKET PRODUCTS	E1 Label products	E2 Brand products	E3 Price products
	E4 Advertise products	E5 Sell product	E6 Distribute products
	E7 Display products	E8 Communicate with stake holders	E9 Offer sales promotion
	E10 Offer after sale services		

F. MAINTAIN FRUIT PROCESSING ENTERPRISE	F1 Train workers on use of equipment	F2 Replace equipment and tools	F3 Repair machinery
	F4 Service machinery	F5 Mitigate risks	F6 Control vices
	F7 Store tools, equipment and materials	F8 Maintain hygiene	F9 Prepare maintenance schedule

G. PERFORM OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION PRACTICES	G1 Wear protective gear	G2 Sensitise workers on key health Issues	G3 Train workers on key health Issues
	G4 Administer first aid	G5 Dispose Waste	G6 Perform firefighting

H. PERFORM ADMINISTRATIVE TASKS	H1 Recruit workers	H2 Manage records	H3 Appraise workers
	H4 Manage Financial affairs	H5 Assign Duties	H6 Supervise workers
	H7 Comply with legal requirements	H8 Keep records	H9 Communicate with stakeholders

Additional Information

Generic Knowledge & Skills

1. Location/ identify good site
2. Production; quality and quantity
3. Utilities, power and water
4. Proximity to main road 5km
5. Financial analysis
6. Food manufacturing practices
7. Standard operating procedures
8. Budgeting
9. Work scheduling
10. Source of work force
11. Ways of land acquisition
12. Type of machinery required
13. Technology
14. Operation of equipment
15. Maintenance
16. Plant design
17. Plant security
18. Storage skills
19. Training knowledge
20. Knowledge on technology
21. Pest control knowledge
22. Sensory evaluation
23. Micro biology
24. Physio- chemical analysis
25. Branding
26. Advertising
27. Communication skills
26. Supply chain
27. Safety
28. First aid
29. Wastage management
30. Public health regulations
31. Environmental regulatory compliance
32. Human resource knowledge
33. Legal requirements
34. Leadership skills
35. Safety skills
36. Book keeping
37. Packaging skills
38. Processing skills
39. Labelling knowledge
40. Preservation skills
41. Weighing skills

Attitudes / Traits / Behaviours	
1. Hard working	16. Reliable
2. Co-operative	17. Patriotic
3. Persistent	18. Strategic
4. Assertive	19. Patient
5. Consistent	20. Good listener
6. Honest	21. Trust worthy
7. Creative	22. Resilient
8. Ready to learn/ dynamic	23. Visionary
9. Traceable	24. Team player
10. Fore sighted	25. Social
11. Disciplined	26. Tolerant
12. Punctual	27. Confident
13. Self-motivated	28. Team player
14. Knowledgeable	29. Social
15. Tolerant	30. Confident

Tools Materials and Equipment	
1. Knives and blades	33. Label applicators
2. Container washers	34. Hand tools (screw drivers, wire strippers wire strippers)
3. Chopping boards	35. First aid box
4. Trays	36. Protection device
5. Refractometer	37. Greasing guns
6. Peeling and slicing machine	38. Scaffolds
7. Bucket	39. Cleaning tool and equipment
8. Weighing scale	40. Brooms
9. Sievers and strainers	41. Scrubbing brushes
10. Slicing machine	42. Moppers
11. Fruit liquid mixtures	43. Squeezers
12. Cleaning blusher for fruits	44. Dusters
13. Fruit processors	45. Gloves (mechanical, heat, surgical)
14. Fruit crushers	46. Fabricated gas cooker
15. Container sealers	47. Date carders
16. Filters	48. pH meters
17. Corkers	49. Refractor
18. Packaging containers (bottles, cans etc.)	50. Thermometer/infrared/food grade
19. Weighing scales	51. Assorted fruit
20. Cookers (gas, electric, wood)	52. Water
21. Fruit processing tables (stainless steel)	53. Disinfectant
22. Refrigerators/freezers/coolers	54. Satirisers
23. Trolleys	55. Packing 60 quality assurance for chemical materials
24. Fruit dehydrators	56. Packing materials
25. Fruit processing sterilisers	57. Checking acidity, sugar, salt, pinch
26. PPE's (aprons, head gears, foot ware)	58. Soap
27. Ultra-sonic cleaners	59. Satirisers
28. Screening operators	60. Voltage meter
29. Heat sealer	61. Phase meter
30. Spray guns	
31. Sorting conveyors	
32. Sun/solar dryers	

Future Trends and Concerns

1. Technology changes
2. Global warming
3. Floods
4. Pests and diseases
5. Weather/ climatic changes
6. Customer behaviour(knowledgeable/picky)
7. Political stability
8. Price fluctuation
9. Economic status
10. Inflation
11. Poor roads net work
12. Poor quality raw materials
13. Expensive packaging
14. Product diversification
15. Un reliable power
16. Expensive machines
17. Theft
18. Lack of curriculum for fruit processors
19. Lack of capital
20. Taxation
21. Exportation and importation
22. Competition
23. Lack of raw materials
24. Land degradation
25. Fires
26. Lack of technological staff
27. Substandard products
28. Poor government policies(licensing)
29. Insufficient raw materials
30. Excess production of raw materials

2.0 ATP – PART II

Training Modules for a FRUIT PROCESSOR

- 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 FRUIT PROCESSOR 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 centres, 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 FRUIT PROCESSOR?

A FRUIT PROCESSOR is a person who adds value to fruits using the available technology by processing, preserving packing and branding for domestic and commercial purposes.

WHO IS A FRUIT PROCESSOR- Qualification Level 1 is a person who adds value to fruits with minimum preservation methods like drying, heating, use of chemicals (salt, sugar, acids).

TRAINING MODULES FOR A FRUIT PROCESSOR

Code	Module Title	Average duration	
		Contact hours	Weeks
UE/FP/M1.1	Process Fruits	240	6 weeks
UE/FP/M1.2	Maintain Fruit Processing Plant	240	6 weeks
UE/FP/M1.3	Perform Entrepreneurial Tasks	200	5 weeks
Summary	3 Training Modules	680	17

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 160 hours 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/FP/M1.1
Module title	M1.1: Process Fruits
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (FRUIT PROCESSOR UVQ 1)
Qualification Level	1
Module purpose	At the end of this module, a trainee shall be able to process quality fruits.
Learning-Working Assignments (LWAs)	<p>LWA 1/1: Prepare Fruits LWA 1/2: Preserve Fruits LWA 1/3: Package Fruits LWA 1/4: Perform Occupational Health, Safety and Environmental Practices</p> <p>Note:</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 1/1: Prepare Fruits PEX 1.1: Clean work area PEX 1.2: Sort fruits PEX 1.3: Grade fruits PEX 1.4: Weigh fruits PEX 1.5: Trim fruits PEX 1.6: Clean fruits PEX 1.7: Perform size reduction</p> <p>LWA 1/2: Preserve Fruits PEX 2.1: Select tools, equipment and materials PEX 2.2: Clean tools and equipment PEX 2.3: Prepare preservatives PEX 2.4: Blanch fruits PEX 2.5: Dry fruits PEX 2.6: Freeze fruits PEX 2.7: Pickle fruits PEX 2.8: Heat fruits PEX 2.9: Add chemical preservatives (sugar, salt & acids)</p> <p>LWA 1/3: Package Fruits PEX 3.1: Select tools, equipment and materials PEX 3.2: Prepare packing materials PEX 3.3: Pack fruits PEX 3.4: Store fruits</p>

	<p>LWA 1/4: Perform Occupational Health, Safety and Environmental Protection Practices</p> <p>PEX 4.1: Administer first aid PEX 4.2: Wear protective gear PEX 4.3: Observe personal hygiene PEX 4.4: Manage waste PEX 4.5: Sensitise workers on health issues</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"> • Factors to consider when selecting fruits • Qualities of a good fruit • Nutritive value of fruits • Classification of fruits • Choice, care and use of equipment and tools • Procedures of cleaning fruits • Ways of fruit preservation • Method of fruit packaging • Communication skills • Personal hygiene, food hygiene and environment • Types of disinfectant • Source packaging materials • Environmental awareness • Good manufacturing procedures and good health practices (GMP & GHP) • Entrepreneurship skills • Computer skills • Literacy & numeracy • Storage knowledge • First aid or safety rules • Waste management
<p>Average duration of learning</p>	<p>240hours (30days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> • 10 days of occupational theory • 20days of occupational practice
<p>Suggestions on organisation of learning</p>	<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	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	weighing scale, cleaning brush, stainless steel tables, knives or cutlery, chopping boards, gum boots, refractometer, PH meter
Minimum required materials and consumables or equivalent	disinfectants, gloves, water, salt, sugar, acids, fruits, detergents, stationery, packaging material,
Special notes	This module is applicable to people with special needs

Code	UE/FP/M1.2
Module title	M1.2: Maintain Fruit Processing Plant/Room
Related Qualification	Part of Uganda Vocational Qualification (FRUIT PROCESSOR UVQ 1)
Qualification Level	1
Module purpose	At the end of this module, a trainee shall be able to operate a fruit processing plant
Learning-Working Assignments (LWAs)	<p>LWA 2/1: Manage Raw Materials</p> <p>LWA 2/2: Maintain Tools and Equipment</p> <p>LWA 2/3: Control Pests and Vices</p> <p>LWA 2/4: Perform Quality Control</p> <p>LWA 2/5: Perform Occupational Health, Safety and Environmental Protection Practises</p> <p>Note:</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 2/1: Manage Raw Materials</p> <p>PEX 1.1: Receive fruits</p> <p>PEX 1.2: Clean fruits</p> <p>PEX 1.3: Store fruits</p> <hr/> <p>LWA 2/2: Maintain Tools and Equipment</p> <p>PEX 2.1 Prepare maintenance schedule</p> <p>PEX 2.2 Repair tools and equipment</p> <p>PEX 2.3 Replace tools and equipment</p> <p>PEX 2.4 Train workers on use of equipment</p> <p>PEX 2.5 Engrave tools and equipment</p> <hr/> <p>LWA 2/3: Control Pests and Vices</p> <p>PEX 3.1 Select tools, equipment and materials</p> <p>PEX 3.2 Fumigate the premises</p> <p>PEX 3.3 Clean premises</p> <p>PEX 3.4 Dispose waste</p> <hr/> <p>LWA 2/4: Perform Quality Control</p> <p>PEX 4.1 Select tools and equipment</p> <p>PEX 4.2 Sort fruits</p> <p>PEX 4.3 Perform physical tests</p> <p>PEX 4.4 Perform organoleptic tests</p>

	PEX 4.5 Correct defects PEX 4.6 Dispose rejects PEX 4.7 Check packaging of products LWA 3/4: Perform Occupational Health, Safety and Environmental Protection Practises PEX 4.1 Administer first aid PEX 4.2 Wear personnel protective gear PEX 4.3 Dispose waste PEX 4.4 Practice safe use of tools PEX 4.5 Display safety signs PEX 4.6 Maintain hygiene
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"> • Microbial knowledge • Environmental awareness • Storage knowledge • Monitoring skills • Waste management • Basic electrical and mechanical repair • Financial literacy • Quality control • Chemical knowledge
Average duration of learning	240 hours (30days) of nominal learning suggested to include: <ul style="list-style-type: none"> • 10 day of occupational theory and • 20 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	brooms, traps, detergents, disinfectants, cleaning cloths, bait stations, trolleys, moppers, towels, sanitisers, ph. meter, personnel protective gear
Minimum required materials and consumables or equivalent	stationery, overall, gloves, pesticides, water, strings, bait stations, trolleys, moppers, towels, sanitisers
Special notes	This module is applicable to people with special needs

Code	UE/FP/M1.3
Module title	M1.3: Perform Entrepreneurial Tasks
Related Qualification	Part of Uganda Vocational Qualification (FRUIT PROCESSOR UVQ 1)
Qualification Level	1
Module purpose	At the end of this module, a trainee shall be able to perform entrepreneurial tasks
Learning-Working Assignments (LWAs)	<p>LWA 3/1: Prepare a Business Plan LWA 3/2: Cost Finished Product LWA 3/3: Market Fruit Products LWA 3/4: Generate Records LWA 3/5: Perform Administrative Tasks LWA 3/6: Perform Occupational Health, Safety 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 3/1: Prepare a Business Plan PEX 1.1: Make a budget PEX 1.2: Make a production plan PEX 1.3: Prepare company profile PEX 1.4: Make a financial plan PEX 1.5: Make a S.W.O.T analysis PEX 1.6: Prepare work schedules</p> <p>LWA 3/2: Cost Finished Products PEX 2.1: Calculate cost of production PEX 2.2: Determine net profit PEX 2.3: Price products</p> <p>LWA 3/3: Market Fruit Products PEX 3.1: Cost resources PEX 3.2: Price product PEX 3.3: Sell product PEX 3.4: Label products PEX 3.5: Advertise fruit products PEX 3.6: Perform customer care services</p>

	<p>PEX 3.7: Communicate with stakeholders PEX 3.8: Negotiate price with stakeholders PEX 3.9: Distribute fruit products PEX 3.10: Handle returns recalls and damages PEX 3.11: Offer sales promotion</p> <p>LWA 3/4: Generate records PEX 4.1: Prepare financial records PEX 4.2: Prepare inventory records PEX 4.3: Keep compliancy records PEX 4.4: Prepare production records PEX 4.5: Prepare human resource records</p> <p>LWA 3/5: Perform Administrative Tasks PEX 5.1: Assign work PEX 5.2: Supervise work PEX 5.3: Pay workers PEX 5.4: Motivate workers PEX 5.5: Participate in meetings PEX 5.6: Manage finances</p> <p>LWA 3/6: Perform Occupational Health, Safety and Environmental Protection Practices PEX 6.1: Sensitise workers on health issues. PEX 6.2: Wear personnel protective gear PEX 6.3: Administer first aid PEX 6.4: Train workers in health issues PEX 6.5: Comply with legal requirements</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 gear
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"> • Knowledge on how to plan a business • Knowledge on how to plan a legal entity • Knowledge on taxes • Knowledge on how to open a bank account • Knowledge on how to obtain permits • Knowledge on how to conduct market survey • Communication skills

	<ul style="list-style-type: none"> • Knowledge on how to identify key elements on human capital • Know to select raw materials • Team work and team building • Know how to market fruit products • Ways of distributing products in the market • Know how to cost advertisement expenditure • Know how to handle products returns and recalls • Basic recording practices • Basic Book Keeping practices • Know to how to coordinate meetings • Know how to evaluate work performances • Know how to administer first aid • Know how to wear PPE's • Know to handle fruits during production • Knowledge of different warp of advertisement • Knowledge of ICT • Idea pitching
Average duration of learning	200 hours (25days) of nominal learning suggested to include: <ul style="list-style-type: none"> • <i>7 day of occupational theory and</i> • <i>23days of occupational practice</i>
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	scissors, PPE kits, signage, firefighting equipment, first aid box,
Minimum required materials and consumables or equivalent	stationery, cleaning materials, food grade disinfectants
Special notes	This module is also applicable to people with special needs

1.0 ATP- PART III

ASSESSMENT INSTRUMENTS FOR A FRUIT PROCESSOR

- 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 FRUIT PROCESSOR are included.

3.9 Overview of Test Item Samples Included

No	Type of test Items	Numbers included
1	Written (Theory)- short answer	3
2.	Written (Theory)- multiple choice	3
3.	Written (Theory)- matching with generic	3
4.	Written (Theory)- matching with cause effect	2
5	Written(theory)- matching with work-sequence	2
6.	Performance (Practical) test items	1
Total		14

WRITTEN TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Written (Theory) Test Item- No:1			
Occupational Title:	Fruit Processor			
Competence level:	Level 1			
Code no.	M1			
Test Item type:	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work- sequence
Complexity level:	C1			
Date of OP:	September 2020			
Related modules:	M1.1			
Time allocation:	4 minutes			

Test Itemis used to monitor the arrival and departure of the staff in fruit processing plant.
Answer spaces	(i) (ii)
Expected key (answers)	(i) Attendance book (ii) Biometric machine

DIT/ QS	Test Item Database Written (Theory) Test Item- No: 2			
Occupational Title:	Fruit Processor			
Competence level:	Level 1			
Code no.	M2			
Test Item type:	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C2			
Date of OP:	September 2020			
Related modules:	M			
Time allocation:	4 minutes			

Test Item	The chemical substance used in the setting of jam is known as.....
Answer spaces	(i)
Expected key (answers)	(i) Pectin

DIT/ QS	Test Item Database Written (Theory) Test Item- No.3			
Occupational Title:	Fruit Processor			
Competence level:	Level 1			
Code no.	M1.2			
Test Item type:	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work- sequence
Complexity level:	C2			
Date of OP:	September 2020			
Related modules:	M			
Time allocation:	2 minutes			

Test Item	List 4 classes of fruits
Answer spaces	(i) (ii) (iii) (iv) (v)
Expected key (answers)	(i) Citrus (ii) Berries (iii) Drupes (iv) Succulent

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

Test Item	Which of the following set of equipment is used for straining
Distractors and correct answer	A. steer, colander and muslin cloth. B. colander, sieve and slotted spoons. C. sieve, slotted spoon and muslin cloth. D. muslin cloth, slotted spoon, colanders.

Key (answer)	A
--------------	---

DIT/ QS	Test Item Database Written (Theory) Test Item – No:5			
Occupational Title:	Fruit Processor			
Competence 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 Module:	M1.3			
Time allocation:	2 minutes			

Test Item	Blanching of fruits means.....
Distractors and correct answer	A. Addition of acids in fruits B. Addition of brine solution C. Cutting fruits in small pieces D. Dipping fruits in hot boiling water

Key (answer)	D
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DIT/ QS	Test Item Database Written (Theory) Test Item – No:6			
Occupational Title:	Fruit Processor			
Competence 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 Module:	M			
Time allocation:	2 minutes			

Test Item	Which of the following is a right sequence in managing raw materials at a fruit processing unit?
Distractors and correct answer	A. clean fruits, sort fruits, receive fruits B. receive fruits, sort fruits, clean fruits C. receive fruits, clean fruits, sort fruits D. sort fruits, clean fruits, receive fruits

Key (answer)	B
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DIT/ QS		Test Item Database Written (Theory) Test Item – No:7			
Occupational Title:	Fruit Processor				
Qualification 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 tasks:	M1.4				
Time allocation:	5 minutes				

Test Item	Match the following equipment and their uses.
------------------	---

Column (A)[Practices]	
A	Knives
B	Sieve
C	Weighing scale
D	Wooden spoon

Column (B)[Activities]	
1	Stirring ingredients
2	Peeling fruits
3	Straining extract
4	Measuring ingredients
5	Cooking food
6	Boiling water

Key (answer)	A2; B3; C4; D1
---------------------	----------------

DIT/ QS		Test Item Database Written (Theory) Test Item – No:8			
Occupational Title:	Fruit Processor				
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:	M1.4				
Time allocation:	3 minutes				

Test Item	Match the following Ingredients and their uses in jam making
------------------	--

Column (A)[Practices]	
A	Sugar
B	Fruit
C	Hot water
D	Pectin

Column (B)[Activities]	
1	Taste
2	Medium for heating
3	Thickness
4	Preservation
5	Colour
6	Sweetener

Key (answer)	A4; B1; C2; D3
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DIT/ QS	Test Item Database Written (Theory) Test Item – No:9			
Occupational Title:	Fruit Processor			
Qualification 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 tasks:	D3			
Time allocation:	4 minutes			

Test Item	Match the following items in a first aid kit and their uses
------------------	---

Column (A)[Practices]	
A	Hydrogen peroxide
B	Plaster
C	Thermometer
D	Clips

Column (B)[Activities]	
1	Measuring body temperature
2	Cutting gauze
3	Holding the bandage
4	Covering wound
5	Cleaning the wound
6	Holding the wound

Key (answer)	A5; B4; C1; D3
---------------------	----------------

DIT/ QS		Test Item Database Written (Theory) Test Item – No:10			
Occupational Title:	Fruit Processor				
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:	M 2:4				
Time allocation:	4 minutes				

Test Item	Match the following accidents and their causes:
------------------	---

Column (A)[Practices]	
A	Cuts and wounds
B	Burns
C	Scald
D	Poisoning

Column (B)[Activities]	
1	Hot metals
2	Hot liquid
3	Toxic chemicals
4	Sharp objects
5	Over standing
6	Lack of oxygen

Key (answer)	A4; B1; C2; D3
---------------------	----------------

DIT/ QS		Test Item Database Written (Theory) Test Item – No:11			
Occupational Title:	Fruit Processor				
Qualification 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 tasks:	A7				
Time allocation:	4 minutes				

Test Item	Match the following effects in jam making with their causes
------------------	---

Column (A)[Practices]	
A	Increased sweetness
B	Browning of jam
C	Sugar lumps
D	Gas bubbles

Column (B)[Activities]	
1	Adding acids
2	Poor mixing
3	Fermentation
4	Over heating
5	Freezing
6	Adding more sugar

Key (answer)	A6; B4; C2; D3
---------------------	----------------

DIT/ QS		Test Item Database Written (Theory) Test Item- no.12			
Occupational Title:	Fruit Processor				
Qualification 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 tasks:					
Time allocation:	3 minutes				

Test Item	State the procedure observed when preparing a mixed fruit salad
------------------	---

Column A (Chronology)	Column B (work steps) in wrong chronological order	
1	A	Select fruits
2	B	Slice fruits
3	C	Clean fruits
4	D	Arrange fruits
5	E	Dress fruits
6	F	Peel fruits

Key (answer)	1A; 2C; 3F; 4B; 5D; 6E
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DIT/ QS		Test Item Database Written (Theory) Test Item- no.13			
Occupational Title:	Fruit Processor				
Qualification 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 tasks:					
Time allocation:	3 minutes				

Test Item	State the procedure of setting a fruit enterprise
------------------	---

Column A (chronology)	Column B (work steps) in wrong chronological order	
1	A	Provide security
2	B	Acquire land
3	C	Source labour
4	D	Equip facility
5	E	Demarcate land
6	F	Erect structures

Key (answer)	1B; 2C; 3E; 4F; 5D; 6A
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PERFORMANCE TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Performance Test Item - No:14
Occupational Title:	Fruit Processor
Competence level:	1
Code no.	
Test Item:	Prepare a mixed fruit jam that will be sold in two weeks
Complexity level:	P2
Date of OP:	September 2020
Related Module:	M2
Related skills and knowledge:	fruit classifying, preparation of fruits, fruit handling(hygiene), preservation methods, packing methods, personal hygiene, environmental hygiene, production flow, selection of tools, equipment and materials
Required tools, materials and equipment:	weighing scale, chopping boards, pineapples, passion fruits paw paws, acids, preserving bottles/containers, stainless steel tables, pair of tongs, saucepans, manilas, sugar weighing spoons, cell tape, dustbin, pen, wooden ladles knives, water, weighing cup, plain paper and towels
Time allocation:	3 Hours
Preferred venue:	Food processing laboratory
Remarks for candidates	<ul style="list-style-type: none"> Follow environmental and safety precautions No extra material will be provided
Remarks for assessors	<ul style="list-style-type: none"> Provide required materials, tools, and equipment

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
1	Preparation before task	Cleaned self		3
		Wore protective gear <ul style="list-style-type: none"> - Head gear - Gloves - Apron - Boots 		4
		Assembled tools equipment and materials	2	

		Cleaned tools, equipment and materials	2	
		Cleaned tools, equipment and materials observed		2
		Cleaned work area	2	
		Clean area observed		2
		Sorted fruits	3	
		No defects on fruits observed		2
		Selected ripe fruits	2	
		Cleaned fruits	3	
		Dirt free fruits observed		2
		Peeled/cut fruits	2	
		No waste observed		2
		Strained fruits	2	
		No seeds in the extract observed		2
		No peels on the fruit observed		2
		Weighed pulp	2	
2	Preparing jam	Weighed ingredients	2	
		Simmered fruits	2	
		No boiling observed		2
		Softened fruits observed		3
		Added sugar	1	
		Added pectin	1	
		Boiled jam while stirring and checked setting of the jam	4	
		Gel like structure observed		2
3..	Packaging	Sterilized packing container	2	
		Use of hot water observed		3
		Inverted the container (3-5) minutes to drain	2	
		Packed fruit jam	3	

		Inverted the container to sterilize cover		2
		Cooled the jam		3
		Labelled jam container		3
		Stored jam		2
4	Post handling activities	Cleaned work area	3	
		Dirt free work area observed		2
		Cleaned tools, equipment and materials	3	
		Cleaned tools, equipment and materials observed		2
		Stored tools, equipment and materials		2
		No equipment and materials observed in the work area		2
		Disposed waste	2	
		No rubbish observed in the area		2
TOTAL (Y)		Process + Results	45	51
MAXIMUM SCORE		$\frac{x}{y} \times 100$	$\frac{x}{99} \times 100$	

4.0 ATP- PART IV

INFORMATION ON DEVELOPMENT PROCESS

4.1 Occupational Profile developed (September 2020)

The Occupational Profile was exclusively developed by job practitioners who were working in the FRUIT PROCESSOR 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 Modules Developed (September 2020)

Based on the Occupational Profile for a Fruit Processor of September 2020, Training Modules were developed by job practitioners, guided by UVQF Facilitators.

4.3 Test Item development (September 2020)

Based on the Occupational Profile for Fruit Processor of September 2020, and Training Modules, Test Items were developed 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 panellists 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 different stages constituted members from the following organisations:

Development Panel		
No.	Name	Institution/Organisational
1.	Nalubega Christine	Mengo S. S
2.	Mutonerwa Joyce K	Bishop's S.S-Mukono
3.	Wasswa Joseph	Makerere University
4.	Mwanga Cleisey	Bweranyangi Girls
5.	Rev. Tino Xavier Grace	Iganga S. S
6.	Ajambo Lucy	Gulu S. S
7.	Jjuuko Deo	Stella Maris Nsube
8.	Musoke Philip	Soroti Fruits Ltd
9.	Kasule Denis	Brisk Beverages (u) Ltd
10.	Kabasingo Binta Theopista	Kings College Budo
11.	Businge Peace .S.	MoES/GC

4.6 Facilitator team

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

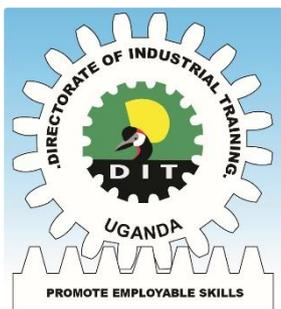
1. **Team Leader:** Ms. Mukyala Ruth Ag Deputy Director DIT
2. **Facilitators:** Ms Aheebwa Joan Mr Kirinya Steven and Mr Ganafa Roland
3. **Data Entrants:** Ms Ekwire Esther and Nakigozi Monica
4. **Coordinated by:** Mr Byakatonda Patrick Ag Director DIT

4.7 Reference time:

This Assessment and Training Package was developed in September, 2020 and may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

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