



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Directorate of Industrial Training



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

Qualification Level: 1
Occupational Cluster: Agriculture

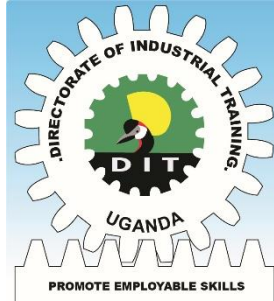
August 2020

Developed by:

Qualifications Standards Department
Directorate of Industrial Training

Funded by:

Government of Uganda



Assessment and Training Package

For a

PIG FARMER

Qualification Level: 1

Occupational Cluster: Agriculture

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2021

ISBN: 978-9913-626-11-8

ISO: 9001:2015 Certificate No.: UG92580A

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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.

Table of Contents

Word from Permanent Secretary	iv
Executive Summary	vi
Acknowledgement	viii
Abbreviations and Acronyms	viii
Key Definitions.....	ix
1.0 ATP PART I	1
Occupational Profile for a Pig Farmer	1
2.0 ATP-PART II	9
Training Modules for a Pig Farmer	9
3.0 ATP- PART III	27
Written Test Items (Samples)	29
4.0 ATP-PART IV	45
Information on Development Process	45

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 **PIG FARMER**
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 PIG FARMER.** This Occupational Profile which was reviewed by Pig farmers practicing in the world of work mirrors the duties and tasks that Pig farmers are expected to perform.
- 0.2 **PART II: Training Modules** in the form of guidelines to train pig 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 PIG FARMER. These assessment instruments were reviewed jointly by job practitioners (Pig 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 Pig 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
TIB	Test Item Bank
TVET	Technical, Vocational, Education and Training
UVQ	Uganda Vocational Qualification
UVQF	Uganda Vocational Qualifications Framework
WTI	Written (Theory) Test Item

Key Definitions

Assessment Assessment is the means by which evidence is gathered and judged to decide if an individual has met the stipulated assessment standards or not. Testing is a form of formal assessment.

Certification	Certification is a formal procedure to issue a certificate (qualification) to an individual that has demonstrated during formal assessment that he/she is competent to perform the tasks specified in the occupational profile.
Competence	Integration of skills, knowledge, attitudes, attributes and expertise in doing /performing tasks in the world of work to a set standard.
Competency	(Occupational) competency is understood as the ability to perform tasks common to an occupation to a set standard.
CBET	Competence-Based Education and Training means that programs: 1. have content directly related to work 2. focus is on 'doing something well' 3. assessment is based upon industry work standards, and 4. curricula are developed in modular form
Duty	A Duty describes a large area of work in performance terms. A duty serves as a title for a cluster of related Tasks (see also: TASK).
Learning-Working Assignment (LWA)	LWA are simulated or real job situations / assignments that are suitable for learning in a training environment (e.g. "small projects"). In a working environment LWAs are real work situations /assignments.
Modules	Modules are part(s) of a curriculum. Modules can be considered as "self-contained" partial qualifications which are described by learning outcomes or competencies and which can be assessed and certified individually.

Occupational Profile (OP)	An Occupational Profile is an overview of the duties and tasks a job incumbent is expected to perform competently in employment. Occupational Profiles developed by practitioners from the world of work enhance the relevance of training and learning to the requirements of the world of work. Occupational Profiles define what a person is supposed to do in performance terms. It also contains generic information regarding related knowledge and skills, attitudes/behavior, tools, materials and equipment required to perform as well as trends/ concerns in the occupation. Occupational profiles are the reference points for developing modular curricular and assessment standards.
Qualification	A qualification is a formal recognition for demonstrating competence, based on formal assessment against set standards. A qualification is provided to the individual in form of a certificate specifying the nature of the competence.
Task	Job tasks represent the smallest unit of job activities with a meaningful outcome. Tasks result in a product, service, or decision. They represent an assignable unit of work and have a definite beginning and ending point. Tasks can be observed and measured. (Also see: Duty)

1.0 ATP PART I

Occupational Profile for a PIG FARMER

- 1.1 The OCCUPATIONAL PROFILE for a “PIG FARMER” below defines the **Duties** and **Tasks** a competent Pig 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 other East African businesses and industries.
- 1.3 To ensure that Occupational Profile is relevant for employment in Uganda and East Africa, 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 a trained and experienced facilitator. During a two-day workshop the panelists defined the duties and tasks performed in employment, as well as the prerequisite skills, knowledge, attitudes, tools and equipment, and the trends and concerns in the occupation/job. The panelists, facilitators and coordinators who participated in developing this Occupational Profile are listed on the following page.

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

Job Expert Panel
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Wore Keni Womens Group Lira

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Funded by
Government of Uganda



THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Directorate of Industrial Training

Occupational Profile

For a

'Pig farmer'

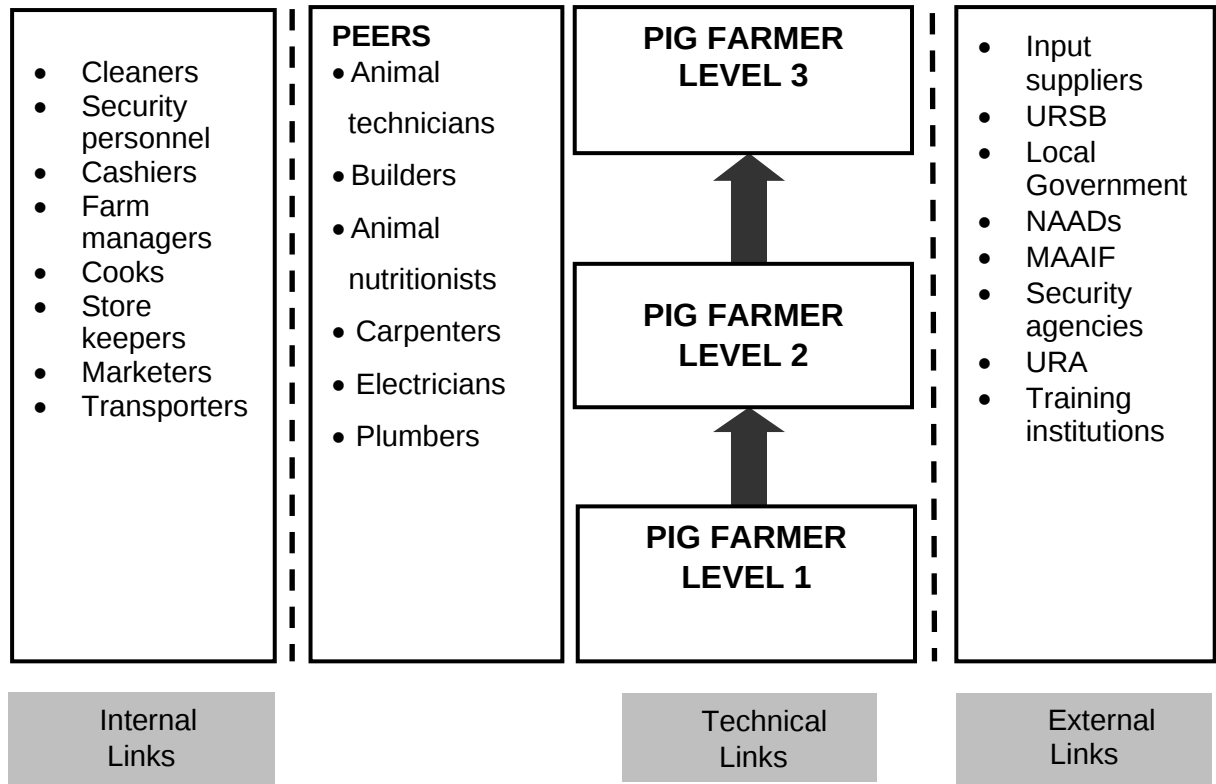
Revised by: Qualifications Standards
Department of Industrial Training

Dates of workshop: 17th – 21st August 2020

NOMENCLATURE FOR THE OCCUPATION OF PIG FARMER

Definition: A pig farmer is a person who rears pigs for commercial purposes.

JOB ORGANISATION CHART FOR A PIG FARMER.



UVQ Level I Pig Farmer; is a person who is able to rear pigs using extensive farming technologies for commercial purposes.

UVQ Level II Pig Farmer; Is a person who is able to rear pigs using intensive pig farming methods for commercial purposes.

UVQ Level III Pig Farmer; Is an individual who breeds pigs using intensive technologies of farming for commercial purposes.

Duties and Tasks

A. PLAN PIGGERY ENTREPRISE	A1 Carryout feasibility study	A2 Design piggery farm plan	A3 Develop farm budget
	A4 Determine required resources	A5 Determine source of resources	A6 Mobilise resources
	A7 Develop farm activity schedule		

B. CONSTRUCT PIG FARM STRUCTURE	B1 Clear site	B2 Demarcate site	B3 Select materials
	B4 Participate in construction of structures	B5 Participate in installation of water systems and feeders	B6 Maintain pig farm structures
	B7 Stock farm		

C. MAKE IMO SOLUTION	C1 Prepare Carbohydrate Source	C2 Set IMO trap	C3 Test IMO Solution
	C4 Multiply IMO Culture	C5 Concentrate IMO solution	C6 Pack IMO Solution
	C7 Store IMO		

D.FEED PIGS	D1 Mix feeds	D2 Pack feeds	D3 Feed pigs
	D4 Water pigs	D5 Store feeds	D6 Prepare wet chops
	D7 Clean feeding equipment	D8 Prepare silage	

E. BREED PIGS	E1 Select breeding stock	E2 Train Boar	E3 Collect semen
	E4 Evaluate Semen	E5 Extend Semen	E6 Detect Heat in pigs
	E7. Inseminate pig	E8 Care for gestating sows	E9 Care for lactating sow and litter
	E10. Control inbreeding	E11 Cull pigs	E12 Select replacement stocks
	E13 Induce heat	E14. Perform surrogate mothering	E15. Assist farrowing

F. MANAGE PIG HEALTH	F1 Wallow pigs	F2 Clean pig farm facilities	F3 Observe biosecurity Measures
	F4 Replace Litter	F5 Identify sick pigs	F6 Seek for veterinary services
	F7 Administer drugs	F8 Apply IMO Solution on pigs and Litter	F9 Control vermines
	F10 Vaccinate pigs		

G. KEEP PIG FARM RECORDS	G1 Generate feeding records	G2 Generate health records	G3 Generate record of disease and pest occurrences
	G4 Generate financial records	G5 Generate growth records	G6 Generate inventory records
	G7 Store records	G8 Keep human resource records	G9 Keep production records
	G10 Keep maintenance records		

H. PERFORM OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION PRACTICES	H1 Participate in occupational health and safety training	H2 Wear protective gear	H3 Maintain hygiene
	H4 Administer first aid	H5 Manage waste	H6 Plant trees
	H7 Provide sanitation facilities	H8 Handle chemicals	H9 Perform firefighting

I. MARKET PIGGERY PRODUCTS	I1 Conduct market research	I2 Advertise pigs and pig farm products	I3 Sell pigs and pig products
	I4 Package pig products	I5 Price pigs and pig products	I6 Offer customer care

J. PERFORM ADMINISTRATIVE TASKS	J1 Mobilise land, tools, materials, equipment and finances	J2 Recruit workers	J3 Assign work
	J4 Network with stakeholders	J5 Supervise farm works	J6 Acquire licenses
	J7 Appraise workers	J8 Participate in meetings	J9 Mentor workers
	J10 Prepare reports	J11 Motivate workers	J12 Guide and counsel staff
	J13 Discipline staff	J14 Pay bills	

Additional Information

Related knowledge and skills

- | | | |
|--|--|---|
| 1. Tools equipment and implement usage, operation & maintenance | 14. Teamwork and cooperation | 30. Human resource management |
| 2. Waste management | 15. Resource mobilisation and management | 31. Cleaning skills |
| 3. Safety, health and environment protection practices and regulations | 16. Entrepreneurship skills | 32. A good eye for detail |
| 4. Environmental changes awareness | 17. Public relations | 33. Ergonomics |
| 5. Quality control | 18. Counselling and guidance of staff | 34. Pig diseases and their signs and symptoms |
| 6. Communication skills | 19. Interpersonal relations | 35. Pig breeds |
| 7. Information and communication technology | 20. Marketing skills | 36. Pig behaviour and welfare |
| 8. Financial literacy | 21. Negotiation skills | 37. Pig nutrition |
| 9. Problem solving and critical thinking | 22. Time management | 38. Pig gestation period |
| 10. Numeracy and literacy skills | 23. Types of transport | 39. Planning skills |
| 11. Drug administration in animals | 24. Staff training and mentoring skills | 40. Leadership skills |
| 12. Care for pigs and piglets | 25. Analytical skills | 41. Pastures and their management |
| 13. Piggery farm bi-products utilisation | 26. Record keeping | 42. Piggery management systems |
| | 27. Feed conservation | 43. Pests and parasites and their control |
| | 28. Animal growth and development stages | 44. Store management |
| | 29. First aid | 45. Risk management |

Tools, Equipment and Materials

- | | | |
|----------------------------|--------------------------|----------------------------|
| 1. Wheelbarrows | 24. Brooms | 41. Water pipes |
| 2. Hammer | 25. Packing material | 42. Water pumps |
| 3. Building materials | 26. Feeding ingredients | 43. Bags |
| 4. Scrubbing brushes | 27. Water | 44. Fire extinguishers |
| 5. Nails | 28. PPE | 45. Store |
| 6. Panga | 29. Computers | 46. Incinerator |
| 7. Slashers | 30. Stationeries | 47. Feed mixers |
| 8. Bow saws | 31. Furniture | 48. Syringes |
| 9. Pesticides | 32. Ear notching machine | 49. Refrigerator |
| 10. First aid box | 33. Spade | 50. Knives |
| 11. Sprayers | 34. Semen extenders | 51. Disinfectant |
| 12. Weighing scales | 35. Water bag | 52. Drugs |
| 13. Measuring tape | 36. Catheters | 53. Soap |
| 14. Hoes | 37. Pliers | 54. Multi- vitamins |
| 15. Rakes | 38. Feed troughs | 55. Mixers |
| 16. Timber | 39. Water troughs | 56. Ultrasound machine |
| 17. Grinding machine | 40. IMO | 57. Weight estimation tape |
| 18. Semen collection tubes | | 58. Gestation stones |
| 19. Soya roaster | | 59. Furrowing crates |
| 20. Test-tube | | 60. Trowels |
| 21. Posts/poles | | |
| 22. Ear tag applicator | | |
| 23. Ear tag | | |

Attitudes/traits / behaviors

- | | | |
|-------------------------|---------------------------------|-----------------|
| 1. Self-motivated | 11. Flexible | 21. Social |
| 2. Trust worthy | 12. Result oriented | 22. Vigilant |
| 3. Honest | 13. Curious | 23. Calm |
| 4. Tolerant | 14. Competitive but Cooperative | 24. Respectful |
| 5. Hard working | 15. Innovative and creative | 25. Confident |
| 6. Team work | 16. Responsible | 26. Intelligent |
| 7. Disciplined | 17. Physically fit | 27. Logical |
| 8. Good time management | 18. Knowledgeable | 28. Trainable |
| 9. Committed | 19. Patient | 29. Tidy |
| 10. Good listener | 20. Polite | 30. Resilient |

Future Trends and concerns

1. Self-criticism
2. Need for training in customer care
3. Benchmarking with pig farmers in other regions
4. Computer literacy
5. Advancement in technology
6. Need for public awareness of pig farming and its benefits
7. Value addition to pig products
8. Poor extension services
9. Price fluctuations of pigs and pig products
10. Fake drugs on the market
11. Fake veterinary personnel
12. Lack of vaccines (swine fever)
13. Religious and cultural beliefs
14. Limited management skills
15. Land fragmentation
16. Seasonal markets
17. Severe climatic changes
18. Limited processing industries
19. Inadequate networking among pig farmers

2.0 ATP-PART II

Training Modules for a PIG 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 the occupation of PIG 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 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 PIG FARMER LEVEL 1?

A Pig Farmer Level 1 is a person who is able to rear pigs using extensive farming technologies for commercial purposes

TRAINING MODULES FOR A PIG FARMER QUALIFICATION LEVEL 1

Code	Module Title	Average duration	
		Days	Weeks
UE/PF/M 1.1	Construct Piggery Farm Structures	20	04
UE/PF/M 1.2	Breed Pigs	20	04
UE/PF/M 1.3	Make IMO Solution	15	03
UE/PF/M 1.4	Feed Pigs	15	03
UE/PF/M 1.5	Manage Parasites and Diseases	15	03
UE/PF/M 1.6	Manage Piggery Enterprise	10	02
Summary	6 Training Modules	95 days	19 weeks

Note: Average duration is contact time but NOT calendar duration

It is assumed that:

- 01 day is equivalent to 8 hours of nominal learning and
- 01 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 will 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 DIT, 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/PF/M 1.1
Module title	Construct Piggery Farm Structures
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Pig Farmer UVQ 1)
Qualification Level	1
Module purpose	At the completion of this module, a trainee shall be able to construct all piggery structures
Learning-Working Assignments (LWAs)	LWA 1.1: Make Piggery Structures' Plan LWA 2.1: Erect Structures LWA 3.1: Maintain Structures LWA 4.1: Perform Occupational Health, Safety and Environmental Protection Practices <u>Note:</u> <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 working assignment</i>
Related Practical Exercises (PEXs)	LWA 1/1: Make Piggery Structures' Plan PEX 1.1: Design structures PEX 1.2: Select site PEX 1.3: Identify construction tool, equipment and materials
	LWA 1/2: Erect Structures PEX 2.1: Clear site PEX 2.2: Demarcate site PEX 2.3: Mobilise tools, equipment, materials and labour PEX 2.4: Raise structures PEX 2.5: Roof structures PEX 2.6: Fix shutters PEX 2.7: Construct Floor structure PEX 2.8: Fix/construct feeders and drinkers PEX 2.9: Erect fence PEX2.10: Construct drainage channels
	LWA 2/3: Maintain the Structure PEX 3.1: Repair feeders PEX 3.2: Replace drinkers PEX 3.3: Repair fence PEX 3.4: Repair pig sties PEX 3.5: Maintain drainage channels

	PEX 3.6: Maintain creep feed room LWA 2/4: Perform Occupational Health, Safety and Environmental Protection Practices PEX4.1: Wear personal protective equipment PEX4.2: Administer first aid PEX4.3: Manage waste PEX4.4: Sensitise workers on key health issues PEX4.5: Maintain hygiene PEX4.6: Display safety notices
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i> • Building construction • Piggery structures • Construction tools and equipment • Waste management • First aid administration • Occupational health, safety and environmental protection practices and regulation • Hygiene and administration
Average duration of learning	160 hours (20 days) of nominal learning suggested to include: • 05 days of occupational theory • 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 established regulations by a recognised assessment body using related practical and written test items from item bank
Minimum required tools/ equipment/ implements or	hammer, measuring tape, panga, sisal, bow saws, ladders, hoe, wheelbarrow, spade, trowel, spirit level, squares, angle line, wood planes, chisels, screw driver, mallet,

equivalent	pliers,
Minimum required materials and consumables or equivalent	gloves, towels, water, disinfectant, soap, litter (beddings), cement, sand, aggregates, timber, ropes
Special note	

Code	UE/PF/M 1.2
Module title	Breed Pigs
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Pig Farmer UVQ 1)
Qualification Level	1
Module purpose	At the completion of this module, a trainee shall be able to Select and manage pig breeds
Learning-Working Assignments (LWAs)	LWA 2/1: Conduct Pre-Farrowing Activities LWA 2/3: Perform Farrowing Activities LWA 2/4: Conduct Post Farrowing Activities LWA 2/5: Care for Piglets LWA 2/6: Generate Breeding Records LWA 2/7: Perform Occupational Health, Safety and Environmental Practices <u>Note:</u> <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 working assignment.</i>
Related Practical Exercises (PEXs)	LWA 2/1: Conduct Pre-Farrowing Activities PEX 1.1: Identify sows on heat PEX 1.2: Perform natural oestrus induction PEX 1.3: Mate pigs PEX 1.4: Carry out pregnancy test PEX 1.5: Isolate the gestating sows PEX 1.6: Deworm sows PEX 1.7: Feed gestation sows PEX 1.8: Participate in vaccinating PEX 1.9: Prepare farrowing pen PEX 1.10: Prepare gestation records LWA 2/2: Perform Farrowing Activities PEX 2.1: Feed farrowing sow PEX 2.2: Monitor for difficulty in farrowing (dystocia) PEX 2.3: Assist in farrowing PEX 2.4: Disinfect umbilical cord PEX 2.5: Keep farrowing records PEX 2.5: Remove mucus from nostrils LWA 2/3: Conduct Post Farrowing Activities

	PEX 3.1: Train piglets PEX 3.2: Induce milk let-down PEX 3.3: Apply antiseptic on piglets, navel code PEX 3.4: Weigh piglets PEX 3.5: Administer iron solution injection PEX 3.6: Sex piglets PEX 3.7: Feed lactating sow and litter
	LWA 2/4: Care for Piglets PEX 4.1: Feed piglets (creep feeding) PEX 4.2: De-worm piglets PEX 4.3: Clip nipple teeth PEX 4.4: Install identification marks e.g. tagging PEX 4.5: Perform tail docking PEX 4.6: Foster piglets PEX 4.7: Castrate piglets PEX 4.8: Keep stock records PEX 4.9: Tame piglets
	LWA 2/5: Perform Occupational Health, Safety and Environmental Protection Practices PEX 5.1: Wear personnel protective equipment PEX 5.2: Administer first aid PEX 5.3: Observe hygiene PEX 5.4: Manage waste PEX 5.5: Sensitise workers on key health issues
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i> • Pig breeding systems • Pig nutrition • Care for gestating sows and farrowing and litter • Waste management • First aid administration • Occupational, health, safety and environmental protection practices and regulations

	• Pig identification, castration and docking • Farm record keeping
Average duration of learning	160 hours (20 days) of nominal learning suggested to include: • <i>05 days of occupational theory</i> • <i>15 days 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 established regulations by a recognised assessment body using related practical and written test items from item bank
Minimum required tools/ equipment/ implements or equivalent	farrowing crate, brush, weighing scale, heat source, identification equipment, nose ring plier, PPE, feeding troughs
Minimum required materials and consumables or equivalent	towels, water, disinfectant, soap, litter/beddings, identification materials, nose ring, antiseptics, feeds,
Special notes	

Code	UE/PF/M 1. 3
Module title	Make IMO Solution
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Pig Farmer UVQ1)
Qualification Level	1
Module purpose	At the completion of this module, a trainee shall be able to make and apply IMO solution in pig housing
Learning-Working Assignments (LWAs)	LWA 3/1: Prepare Carbohydrate Source LWA 3/2: Set IMO Trap LWA 3/3: Prepare IMO Solution LWA 3/4: Manage IMO Solution LWA 3/5: Multiply IMO Culture LWA 3/6: Apply IMO Solution LWA 3/7: Store IMO Solution LWA 3/8: Perform Occupational Health, Safety and Environmental Practices <u>Note:</u> 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 working assignment.
Related Practical Exercises (PEXs)	LWA 3/1: Prepare Carbohydrate Source PEX 1.1: Identify carbohydrate source PEX 1.2: Select carbohydrate PEX 1.3: Clean carbohydrate PEX 1.4: Boil carbohydrate PEX 1.5: Mash carbohydrate LWA 3/2: Set IMO Trap PEX 2.1: Wrap/cover carbohydrate PEX 2.2: Select trap site in a quiet bush/forest PEX 2.3: Burry carbohydrate LWA 3/3: Prepare IMO Solution PEX 3.1: Measure ingredients PEX 3.2: Mix Ingredients PEX 3.3: Smash moulds PEX 3.4: Mix solution with sugar PEX 3.5: Add water

	PEX 3.6: Test IMO
	LWA 3/4: Apply IMO Solution PEX 4.1: Sprinkle IMO on pig and bedding/litter PEX 4.2: Rake bedding/litter
	LWA 3/5: Manage IMO Solution PEX 5.1: Fill same quantity of solution in container PEX 5.2: Cover tightly the IMO Container PEX 5.3: Pack filled containers PEX 5.4: Label IMO container PEX 5.5: Store IMO solution PEX 5.6: Keep records
	LWA 3/6: Store IMO Solution PEX 6.1: Fill solution in container PEX 6.2: Cover IMO solution PEX 6.3: Pack filled containers
	LWA 3/7: Perform Occupational Health, Safety and Environmental Protection Practices PEX 7.1: Wear personnel protective equipment PEX 7.2: Administer first aid PEX 7.3: Observe personal hygiene PEX 7.4: Dispose waste PEX 7.5: Sensitise workers on key health issues
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i> • The IMO technology • Ingredients for production of IMO solutions • Preparation of IMO solutions • Applications of IMO • Storage of IMO • Merits and demerits of IMO technology
Average duration of	120 hours (15 days) of nominal learning suggested to

learning	include: • 05 days of occupational theory and • 10 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 established regulations by a recognised assessment body using related practical and written test items from item bank
Minimum required tools/ equipment/ implements or equivalent	air tight containers (jerrican, water tank) knife, saucepan, teaspoon, source of heat
Minimum required materials and consumables or equivalent	carbohydrate sources e.g. rice, maize brand, cereal brand, decomposing materials
Special notes	When a well-prepared IMO solution is sprinkled daily on a properly laid IMO beddings, then the litter can be changed after every 6 months.

Code	UE/PF/M1.4
Module title	Feed Pigs
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Pig Farmer UVQ1)
Qualification Level	1
Module purpose	At the completion of this module, a trainee shall be able to prepare pig feeds and feed pigs
Learning-Working Assignments (LWAs)	LWA 4/1 Prepare Main Feeds LWA 4/2 Prepare Supplementary Feeds LWA 4/3 Serve Feeds LWA 4/4 Generate Feeding Records LWA 4/5 Perform Occupational Health, Safety and Environmental Protection Practices <u>Note:</u> 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 working assignment.
Related Practical Exercises (PEXs)	LWA 4/1: Prepare Main Feeds PEX 1.1: Prepare creep feeds PEX 1.2: Prepare weaner feeds PEX 1.3: Prepare finisher feeds PEX 1.4: Prepare growers feeds
	LWA 4/2: Make Supplementary Feeds PEX 2.1: Prepare wet chop PEX 2.2: Prepare silage PEX 2.3: Prepare tubers PEX 2.4: Collect swill (kitchen remains)
	LWA 4/3: Provide Feeds PEX 3.1: Serve feeds to pigs PEX 3.2: Serve water to pigs
	LWA 4/4: Generate Feeding Records PEX 4.1: Keep feed conversion records PEX 4.2: Keep record of feeding patterns PEX 4.3: Keep record of feed quantities PEX 4.4: Keep record of feed formulas
	LWA 4/5: Perform Occupational Health, Safety and

	Environmental Protection Practices PEX 5.1: Wear personnel protective equipment PEX 5.2: Administer first aid PEX 5.3: Manage hygiene PEX 5.4: Dispose waste PEX 5.5: Sensitise workers on key health issues PEX 5.6: Trace source of feeds
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i> • Types of feeds • Feeds preparation • Storage of feeds • Silage making • Feeds serving • Administering feed • Common feeding mistakes • Feeding records • Feed conversion • Feed ingredients • Feeding habits • Cost of feeds • Feed mixing • Waste management • Feed conservation
Average duration of learning	120 hours (15 days) of nominal learning suggested to include: • 05 days of occupational theory • 10 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 established regulations by a recognised assessment body using related

	practical and written test items from item bank
Minimum required tools/ equipment/ implements or equivalent	feeding troughs, feeds store, spades, packing bags, weighing scale, PPE, wheelbarrow, broom, panga, knife, silage making tools and equipment
Minimum required materials and consumables or equivalent	feed ingredients, water
Special notes	Feeding alone accounts for over 70% of pig production cost

Code	UE/PF/M1.5
Module title	Manage Parasites and Diseases
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Pig Farmer UVQ1)
Qualification Level	1
Module purpose	At the completion of this module, a trainee shall be able to manage diseases and pests in piggery.
Learning-Working Assignments (LWAs)	LWA 5/1 Identify Pigs’/Piglet Parasites and Diseases LWA 5/2 Control Pigs’/Piglet Parasites and Diseases LWA 5/3 Prevent Pigs’/Piglet Parasites and Diseases LWA 5/4 Generate Health Records LWA 5/5 Perform Occupational Health, Safety and Environmental Protection Practices <u>Note:</u> 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 working assignment.
Related Practical Exercises (PEXs)	LWA 5/1: Identify Pigs’/Piglet Parasites and Diseases PEX 1.1: Identify diseases PEX 1.2: Identify internal parasites infestation PEX 1.3: Identify external parasite infestation
	LWA 5/2: Control Pigs’/Piglet Parasites and Diseases PEX 2.1: De-worm pigs/piglets PEX 2.2: Disinfect pigs/piglets PEX 2.3: Isolate sick pigs/piglets PEX 2.4: Cull pigs PEX 2.5: Vaccinate pigs PEX 2.6: Administer drugs PEX 2.7: Fence pig farm PEX 2.8: Confinement in the house PEX 2.9: Clean pig sty PEX 2.10: Install footbath
	LWA 5/3: Prevent Pigs’/Piglet Parasites and Diseases PEX 3.1: Clip nipple teeth PEX 3.2: Provide Iron solution or anthill soil PEX 3.3: Spray pigs

	PEX 3.4: Restrict access to pig farm PEX 3.5: Dispose dead pigs
	LWA 5/4: Generate Health Records PEX 4.1: Keep vaccination records PEX 4.2: Keep record of disease outbreaks PEX 4.3: Keep death and recovery record PEX 4.4: Keep treatment record
	LWA 5/5: Perform Occupational Health, Safety and Environmental Practices PEX5.1: Wear personnel protective equipment PEX5.2: Administer first aid PEX5.3: Maintain hygiene PEX5.4: Dispose waste PEX5.5: Sensitise workers on key health issues PEX5.6: Handle chemicals PEX5.7: Observe quarantine PEX5.8: Display safety notices
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i> • Swine diseases and parasites • Identification of common diseases and parasites e.g. African swine fever, swine erysipelas etc. • Identify internal parasites and external infestations e.g. round worms, tapeworm, liver fluke, lice, ticks etc. • Parasites infestation • Treatment of diseases • Biosecurity and swine health management • Keep records • Drugs administration and storage • Culling swine
Average duration of learning	120 hours (15 days) of nominal learning suggested to include:

	• 05 days of occupational theory • 10 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 established regulations by a recognised assessment body using related practical and written test items from item bank
Minimum required tools/ equipment/ implements or equivalent	sprayer, drenching gun, syringes, needles, teeth clipper, spade, wheelbarrow,
Minimum required materials and consumables or equivalent	PPE, drugs and chemicals (disinfectants, acaricides, vaccines), water, stationery
Special notes	Aim at disease prevention other than disease control

Code	UE/PF/M1.6
Module title	Manage Piggery Enterprise
Related Qualification	<u>Part of</u> Uganda Vocational Qualification (Pig Farmer UVQ1)
Qualification Level	1
Module purpose	At the completion of this module, a trainee shall be able to profitably run a piggery enterprise
Learning-Working Assignments (LWAs)	LWA 6/1: Start Pig Farming Enterprise LWA 6/2: Communicate with Stakeholders LWA 6/3: Cost Pig Farming Works LWA 6/4: Maintain Business LWA 6/5: Perform Occupational Health, Safety and Environmental Protection Practices <u>Note:</u> 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 working assignment.
Related Practical Exercises (PEXs)	LWA 6/1: Start Pig Farming Enterprise PEX 1.1: Develop business idea PEX 1.2: Conduct market research PEX 1.3: Determine required resources PEX 1.4: Identify sources of resources PEX 1.5: Determine enterprise location PEX 1.6: Prepare budget PEX 1.7: Secure resources PEX 1.8: Setup enterprise PEX 1.9: Register business PEX 1.10: Obtain enterprise related training
	LWA 6/2: Communicate with Stakeholders PEX2.1: Perform customer care services PEX 2.2: Negotiate prices with clients PEX 2.3: Provide technical advice to stakeholders
	LWA 6/3: Market Pig and Pig Products PEX 3.1: Sort pig and other piggery products PEX 3.2: Grade pig and other piggery products

	PEX 3.3: Package piggery product PEX 3.4: Brand piggery products PEX 3.5: Advertise pig product PEX 3.6: Transport pig and other piggery products PEX 3.7: Price piggery products PEX 3.8: Sell products
	LWA 6/4: Maintain Enterprise PEX 4.1: Keep business records PEX 4.2: Monitor business development trends PEX 4.3: Network with peers on technical matters PEX 4.4: Manage finances PEX 4.5: Manage human resource PEX 4.6: Add value to pigs and pig products
	LWA 6/5: Perform Occupational Health, Safety and Environmental Protection Practices PEX5.1: Wear personnel protective equipment PEX5.2: Administer first aid PEX5.3: Maintain hygiene PEX5.4: Dispose waste PEX5.5: Sensitise workers on key health issues
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	<i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i> • Critical control points • Occupational health and safety • Production guidelines and procedures • Procurement process • Product design and development • Marketing • Stores management • ICT • Substitute product and competitor environment • Cost benefit analysis • Breakeven point analysis • Record keeping and management

	• Monitoring and evaluation • Financial literacy • Literacy and numeracy • Human resource management • Waste management • Quality management • Decision making • Change and risk management
Average duration of learning	80 hours (10 days) of nominal learning suggested to include: • <i>03 days of occupational theory</i> • <i>07 days 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 established regulations by a recognised assessment body using related practical and written test items from item bank
Minimum required tools/ equipment/ implements or equivalent	computers, calculators, recorders, cameras, printers, first aid box, production manuals, storage facilities, PPEs, sanitary facilities
Minimum required materials and consumables or equivalent	stationery, toner, CDs, utilities
Special notes	

3.0 ATP- PART III

Assessment Instruments for a PIG FARMER

- 3.1 Assessment of occupational competence is the procedure by which evidence is gathered and judged to decide if an individual (candidate) has met the stipulated assessment standards.
- 3.2 Assessment of occupational competence should comprise of both practical (Performance) testing and written (theory/knowledge) testing.
- 3.3 Based on the Occupational Profile and Training Modules, a combined panel of job practitioners and Instructors developed a substantial number of test items for assessing (practical) performance as well as items for assessing occupational knowledge (theory) all stored in an electronic Test Item Bank (TIB) at the Directorate of Industrial Training.
- 3.4 Performance (Practical) Test Items (PTI) are closely related to typical work situations in Ugandan business enterprises. They comprise of a test assignment for candidates and assessment criteria and/or scoring guides for assessors' use.
- 3.5 Written Test items (WTI) for written testing of occupational theory, (knowledge) are presented in different forms which include: Short answer test items. Multiple choice test items Matching test items,

These WTIs herein focus on functional understanding as well as trouble-shooting typically synonymous with the world of work.

- 3.6 Composition of assessment/test papers will always require good choices of different types of WTI in order to ensure the assessment of relevant occupational knowledge required of candidates to exhibit competence.
- 3.7 The test items contained in the Test Item Bank may be used for continuous/ formative assessment during the process of training as well as for summative assessment of candidates who have acquired their competences non-formally or informally.

In this document, samples of test items for assessing both performance (practical) and occupational knowledge (theory) of a PIG FARMER are included.

3.8 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	1
4.	Written (Theory)- matching work sequence	1
5.	Performance (Practical) test items	3
Total		11

WRITTEN TEST ITEMS (SAMPLES)

DIT/QS	Test Item Database Written (Theory) Test Item- no. 1			
Occupational Title:	Pig 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:	M1:1			
Time allocation:	2 minutes			

Test Item	List four structures that are required on pig farms
Answer spaces	(i) (ii) (iii) (iv)
Expected key (Answers)	(i) Furrowing unit (ii) Dry sow unit (iii) Stall units (iv) Creeping unit (v) Fence (vi) Feed store (vii) Sty (viii) Workers' house

DIT/QS	Test Item Database Written (Theory) Test Item- no. 2			
Occupational Title:	Pig 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:	M1:1			
Time allocation:	2 minutes			

Test Item	Mention five tools that are used in construction of a pig sty.
Answer spaces	(i) (ii) (iii) (iv)
Expected key (Answers)	(i) Bow saw (ii) Hammer (iii) Spade (iv) Pick axe (v) Hand saw (vi) Tape measure (vii) Panga (viii) Plier (ix) Hoe (x) Hole digger

DIT/QS	Test Item Database Written (Theory) Test Item- no. 3			
Occupational Title:	Pig 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: 5			
Time allocation:	3 minutes			

Test Item	Outline two tools that are used to control diseases in pig farms
Answer spaces	(i) (ii)
Expected key (Answers)	(i) Syringes (ii) Needles (iii) Knapsack sprayer/ sprayers (iv) Drenching gun (v) Scrubbing brush

DIT/QS	Test Item Database Written (Theory) Test Item- no.4			
Occupational Title:	Pig Farmer			
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:	August 2020			
Related module:	M: 1:4			
Time allocation:	2 minutes			

Test Item	Which one of the following feed stuffs provides proteins in pigs?
Distractors and correct answer	A. Potatoes B. Soya bean C. Cabbage D. Sorghum

Key (answer)	B
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DIT/QS	Test Item Database Written (Theory) Test Item- no.5			
Occupational Title:	Pig Farmer			
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:	August 2020			
Related module:	M:1:			
Time allocation:	2 minutes			

Test Item	Which one of the minerals given below prevents anemia in pigs
Distractors and correct answer	A. Calcium B. Magnesium C. Iron D. Sodium

Key (answer)	C
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DIT/QS	Test Item Database Written (Theory) Test Item- no.6			
Occupational Title:	Pig Farmer			
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:	August 2020			
Related module:	M:1:			
Time allocation:	2 minutes			

Test Item	Which of the following combination is used for personal protection during cleaning of a pig sty?
Distractors and correct answer	A. Gloves and overall B. Wheelbarrow and gloves C. Overall and scrubbing brush D. Panga and head gear

Key (answer)	A
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DIT/QS	Test Item Database Written (Theory) Test Item- no. 7			
Occupational Title:	Pig 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:	M:1.3			
Time allocation:	3 minutes			

Test Item	Match the following ingredients with their respective nutrient content
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Ingredients	
1	Maize
2	Fish
3	Bones
4	Amaranths

Nutrients	
A	Proteins
B	Carbohydrates
C	Vitamins
D	Phosphorus
E	Methionine
F	Lysin

Key (answer)	1: B, 2: A, 3: D, 4: C
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DIT/QS	Test Item Database Written (Theory) Test Item- no.8			
Occupational Title:	Pig Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
				√
Complexity level:	C:3			
Date of OP:	August 2020			
Related tasks:	M: 1:			
Time allocation:	5 minutes			

Test Item	Arrange the following steps in making IMO solution
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Column A (chronology)	Column B (work steps) in wrong chronological order	
1 st	A	Measure paste.
2 nd	B	Select trapping site.
3 rd	C	Leave the solution to stay for 24hrs
4 th	D	Identify carbohydrate source
5 th	E	Smash carbohydrate source into paste
6 th	F	Measure maize bran
7 th	G	Cook the carbohydrate
8 th	H	Measure water
9 th	I	Select carbohydrate source
10 th	J	Add paste, maize bran to water, mix to form solution
11 th	K	Place the carbohydrate source in the site
12 th	L	Put the paste in the container

Key (answer)	1-D, 2-I, 3-G, 4-E 5-B, 6-K, 7- A,8-L,9-H, 10-F 11-J, 12-C
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PERFORMANCE LEVEL ITEMS (SAMPLES)

DIT/ QS	Test Item Database Performance Test Item No.9
Occupational Title:	Pig Farmer
Competence level:	Level 1
Code no.	
Test Item:	a). Disinfect a one roomed pig sty using a knapsack sprayer. b). Administer oral liquid drug to treat a piglet with internal parasites.
Complexity level:	P 2
Date of OP:	August 2020
Related module:	M1.5
Related skills and knowledge:	spraying schedules, mixing of chemicals, chemical administration in piggery, chemicals and drugs, animal diseases and parasites, signs and symptoms of diseases and parasites, disinfectants, handling of pigs and piglets
Required tools, Materials and Equipment:	knapsack sprayer, measuring cylinder, water, detergents, disinfectant, drenching gun, weight estimation tape
Time allocation:	2 hours
Preferred venue:	Piggery farm
Remarks for candidates	Health and safety precautions should be taken
Remarks for assessors	Provide necessary tools, equipment and materials to candidates

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
1	Preparation for task	Wore protective gear; - Boots and overall - Eye shield and gloves - Nose mask and head gear		3
		Disinfect the footwear before entering the sty		3
		Cleaned work area	2	3
		No rubbish observed in sty and surrounding area		2
		Arranged equipment, tools and materials		1
		Equipment, tools and materials arranged in order of use		2
		Assembled knapsack sprayer	2	
		No leakages on the knap-sack sprayer		2
2	Preparation of disinfectant	Measured disinfectant and water according to manufacturer's instructions	2	
		Disinfectant to water ratio verified		2
		No spillage of disinfectant observed		2
		First mixed disinfectant with small amount of water (e.g.1 litre) then topped to the mark	3	
		Disinfected sty	2	
		Even distribution of disinfectant on the sty surface observed		3
		Closed sty		3
4	Preparation for oral liquid drug	Following manufacturers' instructions for preparation of the oral drug observed	2	
		Measured the required amount of drug in the drenching gun	2	
		Right dosage observed		2
		No spillage of drug observed		2
5	Administration of oral drug	Restrained piglet		2
		No bruises on piglet observed		2
		Opened mouth of piglet	3	
		Administered dewormer	2	
		Use of drenching gun observed		3

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
		Held head up to facilitate swallowing	3	
		No spillage of drug observed		3
		Labelled piglets after administration of drug		2
6	Performing post treatment tasks	Recorded date of treatment		1
		Cleaned tools and equipment		1
		Stored unused drugs, tools and equipment		1
		Removed protective gear		1
		Completed tasks in time		2
TOTAL			26	46
Maximum score (Y)		(X/Y) x 100	72	

DIT/ QS	Test Item Database Performance Test Item No.10
Occupational Title:	Pig Farmer
Competence level:	Level 1
Code no.	
Test Item:	(a) Prepare and pack a complete feed of 100kg for growers at three months
Complexity level:	P 2
Date of OP:	August 2020
Related module:	M1.4
Related skills and knowledge:	animal nutrition, feed formulae and mixing procedures, measuring skills, feed types, feed storage and preservation,
Required tools, Materials and Equipment:	feed mixer/spade, mixing area/tarpaulin, weighing scale, personnel protective equipment, storage facility, containers, labels, feed ingredients i.e. maize bran, fish meal, salt, cotton seed cake, premix, bone meal, lake shells, packaging materials
Time allocation:	2 hours
Preferred venue:	Farm
Remarks for candidates	Health and safety precautions should be taken
Remarks for assessors	Provide necessary tools, equipment and materials to candidates and apply formula

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
1	Preparation for task	Wore protective gear; - Boots and overall - Eye shield and gloves - Nose mask and head gear		3
		Assembled equipment, tools and materials		2
		Cleaned work area	2	
		Dirt free work area observed		2
2	Weigh ingredients	Weighed feed ingredients; 69.7 kg of maize brand verified 7kg of fish meal verified 17.5kg of cotton seed cake verified		
				2
				2
				2

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
		• 4.5 kg of lake shells verified		2
		• 0.7 kg of bone ash verified		2
		• 0.3 kg of salt verified		2
		• 0.3 kg of premix verified		2
		No spillage of ingredients observed		3
3	Mix ingredients	Heaped ingredients	2	
		Layers of ingredients observed		2
		Blended heaped ingredients	2	
		Uniformly mixed feed attained		3
4	Packing of feeds	Filled feeds in the bag	2	
		Weighed feeds	2	
		Sealed bags	2	
		Required quantity of 100kg achieved		2
		Tightly sealed bags verified		2
		Labelled sealed bag		2
		Stored feeds	2	
6	Clean up	Cleaned tools and equipment	2	
		Tools and equipment free of dirt observed		2
		Cleaned work area	2	
		Dirt free area observed		3
7	Economy	No wastage of materials during preparation observed		3
		Tasks completed in time		4
TOTAL			14	63
Maximum score (Y)		(X/Y) x 100	77	

DIT/ QS	Test Item Database Performance Test Item No.3
Occupational Title:	Pig Farmer
Competence level:	Level 1
Code no.	
Test Item:	Castrate a piglet using open castration method
Complexity level:	P 3
Date of OP:	August 2020
Related module:	M1.5
Related skills and knowledge:	Castration methods and procedures, occupational health and safety, sanitation and hygiene, waste management, tools and equipment usage and maintenance,
Required tools, Materials and Equipment:	PPE (Gloves, overall, gumboot), surgical blade, pain killer, water, soap/detergent, disinfectant, towel, buckets, needle, syringe, antibiotics
Time allocation:	2 hours
Preferred venue:	Farm
Remarks for candidates	Health and safety precautions should be taken
Remarks for assessors	Provide necessary tools, equipment and materials to candidates

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
1	Preparation for task	Wore protective gear; • Gum Boots, overall and gloves		3
		Cleaned working area	1	
		Dirt free work area observed		2
		Arranged /assembled equipment, tools and materials		1
		Brought piglet to work area		2
2	Castrate pig	Restrained piglet	2	
		Limited movement of piglet observed		3
		Cleaned and dried scrotum	3	
		Use of warm water, soap and towel observed		3
		Dirt free and dry the scrotum observed		3
		Applied painkiller subcutaneously	4	
		Squeezed scrotum	2	
		Protruded scrotum observed		4
		Cut a slit one side of the scrotum	2	
		Longitudinal slit observed		2
		Testicle popped out on squeezing		2
		Pulled testicles	2	
		Spermatic cord observed		3
		Twisted spermatic cord to break point		4
		Cut slit on second side of scrotum	4	
		Longitudinal slit observed		2
		Testicle popped on squeezing		2
		Pulled second testicles	2	
		Spermatic cord observed		3
		Twisted spermatic cord to break point		4
4	Administer drugs	Applied disinfectant onto the wound	2	
		Administered antibiotics	2	
		Antibiotics injected below the ear.		4
5	Post castration activities	Took the piglet back to the sty	2	
		Cleaned working area	2	
		Dirt free area observed		2

#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
		Cleaned tools and equipment		2
		Stored tools		3
TOTAL			22	41
Maximum score (Y)		(X/Y) x 100	65	

4.0 ATP-PART IV

INFORMATION ON DEVELOPMENT PROCESS

4.1 Occupational Profile Development (August 2020)

The Occupational Profile was exclusively developed by job practitioners who were working in the Pig 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 Development (August 2020)

Based on the Occupational Profile for a Pig Farmer of August 2020, training modules were developed by job practitioners, guided by UVQF Facilitators.

4.3 Test Item Development (August 2020)

Based on the Occupational Profile for a Pig Farmer of August 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 practitioner's panels consolidated the development philosophy.

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

4.5 Development Panel

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

Development Panel		
S/No	Name	Institution/ Organisation
1	Rose Mary Odur	Wore Keni Women's Group Lira
2	Ninsiima Bonitah	St. Patrick SS Ssembabule
3	Nalubega Agnes	St. Denis Gaba SS
4	Muhindi Paul	SICDO
5	Tayebwa Evans	On Sport Farm Wakiso
6	Katende Enock	Milwa Farm (Wakiso)
7	Mukaya Stephen N	ST Gonzaga Budiwi SS
8	Okech Dominick	ST Kalemba SS Nazigo
9	Mulindwa Christopher	Prime Pork Limited
10	Nnyanzi Flavia	NCDC
11	Oketcho Mark	M&F Farm

4.6 Facilitator Team

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

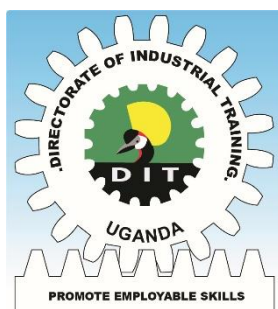
- Team Leader:** Ms Mukyala Ruth Ag. Deputy Director/QS Dept, DIT
- Facilitators:** Mr. Richard Ochwo, SPQO, DIT; and Ms. Agnes Kusasira DE, DIT Ms. Tuhirirwe Doreen. DIT
- Data Entrants:** Ms. Asimwe Janet, DE/DIT and Ms. Nyakamadi Janat DE/DIT
- Compiled by:** Ms. Kusasira Agnes QS/DIT
- Edited by:** Ms. Mukyala Ruth Ag. Deputy Director QS Dept. DIT
- Coordinated by:** Mr. Byakatonda Patrick, Ag. Director, DIT; and Ms. Mukyala Ruth Ag. DD Qualification Standards Dept. DIT

Reference time:

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

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ISBN 978-9913-626-11-8

