AQUACULTURE HOUSING ACTIVITIES

ISCED UNIT CODE: 0831 451 01A

TVETCDACC UNIT CODE: AQ/CU/AM/CR/1/3/MA

UNIT DURATION: 150 HOURS

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Perform Aquaculture housing activities

UNIT DESCRIPTION

This unit specifies the competencies required to set up fish rearing unit. It involves applying farm management concepts, constructing fish rearing units, installing inlet and outlet systems, predatory control devices and maintaining fish rearing units.

SUMMARY OF LEARNING OUTCOMES

1. Apply farm management concepts
2. Construct a fish-rearing unit
3. Install inlet and outlet systems
4. Install predatory control devices
5. Maintain fish rearing unit

ELEMENT AND PERFORMANCE CRITERIA

LEARNING OUTCOME	CONTENT	SUGGESTED METHOD OF ASSEMENT
1. Apply farm management concepts	1.1 Functions of farm management 1.1.1Decision making in setting up a fish rearing unit 1.1.2Setting objectives 1.1.3. Forecasting 1.1.4. Planning 1.1.5. Implementation 1.1.6. Controlling	• Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning
2. Construct a fish-rearing unit	2.1. Personal protective equipment 2.1.3. Gumboots 2.1.4. Helmets 2.1.5. Gloves 2.1.6. Overalls	• Practical • Project • Third party report • Portfolio of evidence • Written tests

	2.1.7. First aid kits 2.2. Tools and requirements 2.2.3. Tools-tape measure 2.2.4. Spirit level 2.2.5. Jembes 2.2.6. Spades 2.2.7. Pangas 2.3 Factors to consider before constructing a rearing unit • Availability of extra labor • Equipment and materials required • Site related factors 2.4 Site clearing 1.1 Importance of site clearing 2.1 Types of wetland vegetation 3.1 Site clearing techniques 4.1 Risks associated with site clearing 2.3. Methods of disposing cleared vegetation 2.4. Analyzation of water quality and quantity 2.5. Analyzation of water characteristics 2.6. Land topography 2.7. Selection of fish rearing unit 2.7.3. Earthen ponds 2.7.4. Lined ponds 2.7.5. Concrete ponds 2.7.6. Fiberglass tanks 2.7.7. Plastic tanks 2.7.8. Glass tanks 2.8. Clearance of fish rearing unit 2.9. Measurement of fish rearing area 2.10. Construction of fish rearing unit	• Oral questioning
3. Install inlet and outlet systems	3.1. Personal protective equipment 3.2. Tools and equipment selection 3.3. Elevation of inlet and outlet system 3.4. Excavation of trenches 3.5. Installation of PVC pipes 3.6. Fitting of inlets and outlets 3.7. Backfilling of trenches	• Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning

	3.8. Inlet and outlet systems 3.8.1. Pipe inlets 3.8.2 Open gutter inlets 3.8.3. Canal inlets 3.8.4 Gate valves 3.8.5 Canfield pipes 3.8.6 Sluices 3.8.7 Monks	
4. Install predatory control devices	4.1. Measurement of fish rearing unit 4.2. Pegging of fish rearing unit 4.3. Mounting of predatory control devices 4.3.3. Chain link 4.3.4. Scare crow 4.3.5. Decoys 4.3.6. Deterrents 4.3.7. Electric fencing	• Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning
5. Maintain fish rearing unit	5.1. Maintenance required in fish rearing unit Cleaning around net pens and ponds 5.1.3. Repairing damaged netting 5.1.4. Floatation or moorings 5.1.5. fixing the banks of a pond 5.2. fish rearing unit maintenance procedure 5.3. Recording of identified issues	• Practical • Project • Third party report • Portfolio of evidence • Written tests • Oral questioning

Suggested Methods of Instruction

- Project
- Demonstration
- Practicals
- Discussions
- Direct instruction

Recommended Resources for 25 Trainees

	Description/specification		**Recommended ratio**

Category/Item		**Quantity**	**(item: Trainee)**
Desktop computers/laptops		25	1:1
Internet connection			
Projector Printer		1 1	1:25 1:25
Feed mixer		1	1:25
Well-equipped workshop		1	1:25
Flame photometer		1	1:25
Tanks		1	1:25
Feed extruder		1	1:25
Assorted sieve		1	1:25
Spade		5	1:5
Weighing scale		5	1:5
Jembe		5	1:5
PH meter		5	1:5
Wheelbarrow		5	1:5
Measuring tape		5	1:5