

## PRODUCTION OF TABLE SIZE FISH

**ISCED UNIT CODE:** 0831 451 02A

**TVETCDACC CODE:** AQ/CU/AM/CR/02/3/MA

**UNIT DURATION: 150 Hours**

### **Relationship to Occupational Standards**

This unit addresses the Unit of Competency: produce table size fish

### **Unit Description**

This unit covers the competencies required to produce table-size fish. It entails preparing grow-out rearing units, stocking fingerlings and managing fish health.

### **Summary of Learning Outcomes.**

By the end of this unit, the learner will be able to:

1. Prepare grow-out rearing units
2. Stock fingerlings
3. Manage fish health

### **Learning Outcomes, Content and Suggested Assessment Methods**

<b>Learning Outcomes</b>	<b>Content</b>	<b>Suggested Assessment Methods</b>
1. Prepare grow-out rearing units	<p><b>Theory</b></p> <p>1.1 PPEs</p> <p>1.1.1 Safety goggles</p> <p>1.1.2 Gumboots</p> <p>1.1.3 Gloves</p> <p>1.1.4 Dust coats</p> <p>1.1.5 First aid kits</p> <p>1.1.6 Gas mask</p> <p>1.1.7 Waders</p> <p>1.2 Selection of tools and equipment</p> <p>1.2.1 Weighing scale</p> <p>1.2.2 Wheelbarrow</p> <p>1.2.3 Water quality test kit</p> <p>1.2.4 Spades</p> <p>1.2.5 Lime</p> <p>1.2.6 Fertilizer</p> <p>1.2.7 Secchi disks</p> <p>1.2.8 Microscope</p> <p>1.2.9 Dissecting kit</p> <p>1.2.10 Buckets and basins</p> <p>1.2.11 Fish harvesting gear</p> <p>1.3 Disinfecting grow-out rearing unit</p>	<ul style="list-style-type: none"><li>• Practical</li><li>• Project</li><li>• Third party report</li><li>• Portfolio of evidence</li><li>• Written tests</li><li>• Oral questioning</li></ul>

	<p>1.4 Filling if fish rearing unit</p> <p>1.5 Carrying out Grow-out rearing unit water conditioning</p> <ul style="list-style-type: none"> <li>1.5.1 Liming</li> <li>1.5.2 Fertilization</li> <li>1.5.3 Flocculation</li> <li>1.5.4 Flushing</li> </ul> <p><b>Practice</b></p> <p>Prepare grow out rearing unit</p>	
2. Stock fingerlings	<p><b>Theory</b></p> <p>2.1 PPEs</p> <ul style="list-style-type: none"> <li>2.1.1 Safety goggles</li> <li>2.1.2 Gumboots</li> <li>2.1.3 Gloves</li> <li>2.1.4 Dust coats</li> <li>2.1.5 First aid kits</li> <li>2.1.6 Gas mask</li> <li>2.1.7 Waders</li> </ul> <p>2.2 Selection of tools and equipment</p> <p>2.3 Fingerlings selection</p> <ul style="list-style-type: none"> <li>• Care and handling of fingerlings</li> <li>• Fingerling transportation methods</li> <li>• Factors to consider when stocking ponds with fingerlings <ul style="list-style-type: none"> <li>• Timing</li> <li>• Weather</li> <li>• Water quality</li> <li>• Fingerling acclimatization</li> <li>• Stocking procedure</li> </ul> </li> </ul> <p>2.4 Fingerlings transfer</p> <p><b>Practice</b></p> <p>2.5 Carry out fingerlings stocking</p> <p>2.6 Post-harvest monitoring of stocked fish</p> <ul style="list-style-type: none"> <li>• Handling fingerling mortalities</li> </ul> <p>2.7 Signs of stress in newly stocked fish</p>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Written tests</li> <li>• Oral questioning</li> </ul>
3. Feed grow out fish	<p>3.1 Types of fish feeds</p> <p>Natural feeds</p>	<ul style="list-style-type: none"> <li>• Oral questioning</li> <li>• Written tests</li> </ul>

	<p>3.2 Pond liming and fertilization</p> <p>3.3 Fish feeding methods</p> <p>3.3.1 Hand feeding (broadcasting)</p> <p>3.3.2 Automatic feeders</p> <p>3.3.3 Demand feeders</p> <p>4 Fish feeding behavior</p> <p>5 Feeding rates, frequency and timing</p> <p>6 On-farm feed handling and storage</p> <p>7 Maintenance of basic feeding records</p>	<ul style="list-style-type: none"> <li>• Practical tests</li> </ul>
8 Manage fish health.	<p><b>Theory</b></p> <p>8.2 PPEs</p> <p>8.3 Selection of tools and equipment</p> <p>8.4 Fish health signs and symptoms</p> <p>8.5 Administration of disinfectants, drugs, therapeutic substances and antibiotics</p> <p>8.5.1 Iodophores</p> <p>8.5.2 Chlorine</p> <p>8.5.3 Formalin</p> <p>8.5.4 Ozonation</p> <p>8.5.5 Quaternary ammonium compounds</p> <p>8.5.6 Hydrogen Peroxide</p> <p>8.5.7 Potassium permanganate</p> <p>8.5.8 Copper Sulfate</p> <p>8.5.9 Emamectin benzoate</p> <p>8.5.10 Florfenicol</p> <p>8.5.11 Oxolinic acid and flumequine</p> <p>8.5.12 Oxytetracycline</p> <p>8.6 Carrying out prevention and control of fish diseases</p> <p>8.6.1 Pathogen-free water</p> <p>8.6.2 Transfer of pathogens</p> <p>8.6.3 Disinfections</p> <p>8.6.4 Optimization of environmental conditions</p>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Third party report</li> <li>• Portfolio of evidence</li> <li>• Written tests <ul style="list-style-type: none"> <li>○ Oral questioning</li> </ul> </li> </ul>

### **Suggested Methods of Instruction**

- Project
- Demonstration
- Practicals
- Discussions
- Direct instruction

### **Recommended resources for 25 trainees.**

<b>S/NO</b>	<b>Category/Item</b>	<b>Description/specification</b>	<b>Qty</b>	<b>Recommended ratio (item: trainee)</b>
	Projector	EPSOM	1	1:25
	Whiteboard/smartboard	2.5 By 1.5.M	1	1:25
	Desktop/computer		1	1:25
	Classroom	Well-lit with 25 seats	1	1:25
	Sets of Writing materials		25	1:25
	Video clips		5	1:25
	Human resource	Trainer and Technician	2	1:25
	Library	Equipped with table fish production books and E-section	1	1:25