

## PRODUCE ORNAMENTAL FISH

**ISCED UNIT CODE:** 0831 451 06A

**TVETCDACC UNIT CODE:** AQ/OS/AM/CR/02/5/MA

### **UNIT DESCRIPTION**

This unit covers the competencies required in the production of ornamental fish. It involves Breeding fresh water and marine water ornamental fish, constructing aquarium tanks and carrying out aqua capping.

### **ELEMENT AND PERFORMANCE CRITERIA**

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
These describe the key outcomes that make up workplace function	These are assessable statements that specify the required level of performance for each of the elements.  <i><b>Bold and italicized terms are elaborated in the Range</b></i>
1. Breed fresh water and marine water ornamental fish	<ul style="list-style-type: none"><li>1.1 <i>Selection of ornamental fish brooders</i> is carried as per ornamental fish breeding manual</li><li>1.2 <i>Breeding unit water is conditioned</i> as per ornamental fish breeding manual</li><li>1.3 Ornamental fish brooders are paired according to ornamental fish breeding manual</li><li>1.4 Fertilized ornamental fish eggs are incubated as per ornamental fish breeding manual</li><li>1.5 Ornamental fish hatchlings are stocked as per ornamental fish breeding manual</li></ul>
2. Construct aquarium tanks	<ul style="list-style-type: none"><li>2.1 PPEs are worn according to work requirement</li><li>2.2 <i>Tools, materials and equipment</i> are selected as per the work requirement</li><li>2.3 Aquaria is designed as per fish aquaria construction manual</li><li>2.4 Glass sheets are cut according to desired sizes as per fish aquaria construction manual</li><li>2.5 Cut glass sheets are mounted as per fish aquaria construction manual</li></ul>

	2.6 Constructed aquaria leakages are test run as per fish aquaria construction manual
3. Carry out aqua scaping	<p>3.1 PPEs are worn according to work requirement</p> <p>3.2 Tools and equipment are selected as per work requirement</p> <p>3.3 Aquaria layout is designed as per fish aquaria construction manual</p> <p>3.1 <i>Aquascaping materials</i> are installed as per fish aquaria construction manual</p> <p>3.2 <i>Aquascaping styles</i> are implemented as per fish aquaria construction manual</p>

## RANGE

This section provides a work environment and conditions to which the performance criteria apply. It allows for a different work environment and situations that will affect performance.

Variable	Range
Selection of ornamental fish brooders include but are not limited to:	<p>Selection is based on the following</p> <p>1. 1 Type Species 1. 2 Intensity of colour 1. 3 Reproduction mode 1. 4 Courtship behaviour 1. 5 Type of eggs produced</p>
Breeding unit water is conditioned include but are not limited to:	<p>2.1 Dechlorination 2.2 Degassing 2.3 Aeration 2.4 Temperature stabilization 2.5 pH control</p>
Tools, materials and equipment include but are not limited to:	<p>3.1 Breeding tanks 3.2 Thermostat heaters 3.3 Kakabans/Egg trays 3.4 Graders 3.5 Suction pipes, 3.6 Desiccators, 3.7 Dechlorinators 3.8 Magnetizers 3.9 Aquarium lighting</p>

	3.10 Aquarium filters 3.11 Submersible pump
Aquascaping materials include but are not limited to:	4.1 Aqua Soils 4.2 Artificial/Natural Aquatic Plants 4.3 Aquarium driftwood 4.4 Aquarium rocks 4.5 Aquarium substrate 4.6 Gravel 4.7 Wall papers
Aquascaping styles include but are not limited to:	The following aquascaping styles can be used; 5.1 Dutch 5.2 Jungle 5.3 Iwagumi 5.4 Nature Aquarium

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

### Required Skills

The individual needs to demonstrate the following skills:

- Intensive and selective catching techniques
- broodstock management and captive breeding
- Aquarium tank fabrication
- Glass plane cutting technique
- Sealants application skills
- Aquascaping techniques
- Fish feeds storage

### Required Knowledge

The individual needs to demonstrate knowledge of:

- Freshwater ornamental fishes
- Breeding protocol and management methods
- Ornamental fish breeding techniques
- Types of sealants
- Principles of Aquascaping
- Aquascaping design and styles
- Ornamental feeding procedures
- Fish nutritional requirements

- Types of feeds and feeding methods
- Fish feeding ingredients
- Ornamental fish diseases

## EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

Critical aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ol style="list-style-type: none"> <li>1.1 Conditioned breeding unit water <i>is</i> as per ornamental fish breeding manual</li> <li>1.2 Paired ornamental fish brooders according to ornamental fish breeding manual</li> <li>1.3 Fertilized incubated ornamental fish eggs as per ornamental fish breeding manual</li> <li>1.4 Stocked ornamental fish hatchlings as per ornamental fish breeding manual</li> <li>1.5 Designed aquaria as per fish aquaria construction manual</li> <li>1.6 Cut glass sheets according to desired sizes as per fish aquaria construction manual</li> <li>1.7 Mounted cut glass sheet as per fish aquaria construction manual</li> <li>1.8 Test run constructed aquaria leakages as per fish aquaria construction manual</li> <li>1.9 Designed aquaria layout as per fish aquaria construction manual</li> <li>1.10 Installed <i>aquascaping materials</i> as per fish aquaria construction manual</li> <li>1.11 Implemented <i>aquascaping styles</i> as per fish aquaria construction manual</li> </ol>
Resource Implications	<p>The following resources should be provided:</p> <ol style="list-style-type: none"> <li>2.1 An appropriately simulated environment where assessment can take place.</li> <li>2.2 Access to relevant assessment environments.</li> <li>2.3 Resources relevant to the proposed assessment activity or tasks.</li> </ol>

Methods of Assessment	Competency may be assessed through: 3.1 Practical 3.2 Project 3.3 Third party report 3.4 Portfolio of evidence 3.5 Written tests 3.6 Oral questioning
Context of Assessment	4.1 This competency may be assessed in a work place or in a simulated work place.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.