



Australian Government

SFIAQU404 Operate hatchery

Release: 1

SFIAQU404 Operate hatchery

Modification History

Release	Comments
Release 1	This version released with SFI Seafood Industry Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to oversee the breeding, culling and raising of broodstock and progeny and preparing for distribution in hatchery operations.

The unit applies to individuals who have responsibility for aquaculture hatchery production and use specialised technical skills and knowledge to manage the work team and operations.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Aquaculture (AQU)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Select, condition and spawn broodstock	1.1 Confirm breeding objectives, selection aims and strategies with management 1.2 Confirm hatchery production schedule, labour and resource requirements, health and safety and risk minimisation procedures with production personnel 1.3 Ensure quality of broodstock selection is met according to workplace requirements 1.4 Manage the broodstock conditioning, spawning and recovery

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	process 1.5 Identify broodstock to be spawned again at a later date and move to holding tanks or areas
2. Select or cull progeny	2.1 Manage progeny husbandry to ensure high survival and growth or other selection criteria 2.2 Carry out quality assessment of progeny regularly and cull or remove inferior progeny 2.3 Monitor progeny health and promptly control any disease outbreaks, sending samples to relevant authorities 2.4 Monitor effects of feed and health treatments on progeny and take actions to avoid or minimise health problems and negative effects on product quality 2.5 Monitor progeny growth and development using an appropriate performance recording system 2.6 Carry out harvesting to meet hatchery production plan 2.7 Maintain breeding records according to industry standards and breeding program requirements
3. Monitor, review and improve hatchery performance	3.1 Review the progress of hatchery production plan with management 3.2 Maintain and analyse physical and financial evaluations of hatchery performance 3.3 Obtain and assess information on innovations to determine relevance and possible application 3.4 Test innovations to determine suitability and adaptability to individual circumstances, their benefit and cost, and report outcomes to management team 3.5 Discuss selection aims, breeding objectives and strategies with management team

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	- Interprets production plans and order requirements - Researches and analyses information about hatchery operations from a range of sources
Writing	Completes workplace documentation relating to hatchery operations legibly and accurately
Numeracy	- Calculates and estimates quantities of stock - Records and interprets data relating to water quality - Monitors and analyses costs of hatchery operations
Oral communication	Explains hatchery operation responsibilities to staff using language appropriate for audience
Interact with others	Collaborates with others contributing knowledge, ideas and skills to achieve improvements in stock quality and hatchery operations
Get the work done	- Assesses options, taking into consideration a range of relevant factors, and tests and reports on continuous improvements for hatchery operations - Uses familiar digital systems and tools to access, organise, analyse and display information relevant to role and hatchery operations

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
SFIAQU404 Operate hatchery	SFIAQUA404C Operate hatchery	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273>

Assessment Requirements for SFIAQU404 Operate hatchery

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has managed and monitored the operations of a hatchery on at least one occasion, including:

- communicating and supervising production personnel on all aspects of hatchery production
- overseeing the collecting, care and handling of broodstock, larvae and juveniles
- overseeing the breeding, culling and raising of progeny and preparing for distribution
- manipulating culture environment to achieve objectives
- conducting a review of hatchery operations and assessing options for improvement
- discussing proposed breeding objectives and strategies with management team.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- breeding requirements of broodstock and progeny
- nutritional, health and environmental requirements of breeding stock and progeny
- clinical signs of ovulation and imminent spawning
- environmental factors or cues for reproductive behaviour
- preparation of broodstock and or progeny for distribution
- workplace business information relevant to hatchery operations
- overview of current innovations and trends in hatchery operations
- health and safety requirements in context of hatchery operations.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- skills must be demonstrated in an aquaculture hatchery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - broodstock or seedstock
 - hatchery and equipment for caring for and raising progeny
 - monitoring equipment
 - reference material for research purposes
- specifications:
 - hatchery production schedule, labour and resource requirements
- relationships:
 - evidence of interactions with management and production staff members.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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