

Modification history

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

SFIAQU311	Monitor production and maintain algal or live-feed cultures
Application	<p>This unit of competency describes the skills and knowledge required to monitor the production, maintenance and harvesting of algae and/or live feed cultures to be fed to cultured or held aquatic stock. It includes the ability to plan for production, initiating and growing of cultures and organising their harvest.</p> <p>The unit applies to individuals who have responsibility for the production of cultures in an aquaculture environment, working under broad direction and having limited responsibility for the work of others</p> <p>All work must be carried out to comply with workplace procedures, according to state/territory health and safety, biosecurity and environmental regulations, legislation and standards that apply to the workplace.</p> <p>No occupational licensing, legislative or certification requirements apply to the unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Aquaculture (AQU)

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. Plan for production	1.1 Interpret and confirm production schedule with supervisor 1.2 Confirm labour and equipment requirements with supervisor 1.3 Identify risk factors that could affect the quality of algal or live-feed cultures during production and plan to minimise risk 1.4 Assemble culture system for use according to workplace procedures 1.5 Communicate workplace production procedures and safety precautions to team members
2. Prepare for initiation and maintenance of algal or live-feed cultures	2.1 Check production vessels or structures and other equipment, including personal protective equipment, for serviceability 2.2 Treat culture water to meet the physio-chemical requirements of the cultured organism 2.3 Inoculate cultures to meet the required stocking density 2.4 Prepare nutriment formulae or media according to workplace procedures
3. Monitor and maintain culture production	3.1 Measure and maintain physio-chemical requirements of the culture organism for the culture period 3.2 Maintain sterile conditions and equipment in parent and stock cultures 3.3 Check culture health regularly by sampling the culture water and take appropriate action to achieve the production schedule
4. Harvest culture	4.1 Collect and check harvesting equipment for serviceability and repair or replace sub-standard equipment 4.2 Collect required quantity of culture in harvest equipment 4.3 Refill production vessel with preconditioned water and nutrients and return culture to pre-harvest conditions 4.4 Treat and dispose of unused cultures and wastes according to workplace procedures and environmental requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
5. Complete culture production activities	5.1 Check cleaning of work area and disposal of waste materials is completed according to workplace procedures 5.2 Check condition, maintenance requirements and storage of tools and equipment 5.3 Record relevant data and observations and report any abnormal records to supervisor

Foundation Skills	
<i>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.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> Interpret specifications for nutrient formulae or media requirements
Writing	<ul style="list-style-type: none"> Complete workplace records and reports legibly and accurately using correct technical terminology
Numeracy	<ul style="list-style-type: none"> Estimate labour time and equipment needed for required activities Measure volume and calculate ratios relevant to inoculation culture and required stocking density Calculate culture period for the species
Oral communication	<ul style="list-style-type: none"> Explain production procedures using language appropriate for audience
Navigate the world of work	<ul style="list-style-type: none"> Take responsibility for decisions about when and how to complete production tasks
Interact with others	<ul style="list-style-type: none"> Understand what to communicate, with whom and how, in routine work situations
Get the work done	<ul style="list-style-type: none"> Use key features and functions of workplace systems and technology to record production data and observations

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
SFIAQU311 Monitor production and maintain algal or live-feed cultures	SFIAQUA311B Oversee production and maintain algal or live-feed cultures	Updated to meet Standards for Training Packages. Revised unit title and minor amendments to performance criteria to better reflect outcomes.	Equivalent unit

Links
Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273

TITLE	Assessment requirements for Monitor production and maintain algal or live-feed cultures
Performance Evidence	
<p>An individual demonstrating competency must satisfy all the elements and performance criteria of this unit. There must be evidence that the individual has monitored the production and maintenance of algal or live-feed cultures on at least one occasion including:</p> <ul style="list-style-type: none"> • communicating with supervisor on production schedule, labour and equipment requirements • planning and communicating production procedures for algal or live-feed cultures to team members • preparing nutriment formulae or media and altering the physio-chemical environment to meet the culture species requirements throughout the culture period • monitoring the maintenance of culture production and harvest process • checking, maintaining and repairing equipment • recording and reporting production data • monitoring the cleaning of work area and equipment and disposal of waste materials • monitoring health and safety, hygiene and environmental requirements. 	
Knowledge Evidence	
<p>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:</p> <ul style="list-style-type: none"> • inoculation culture required to achieve stocking density • nutriment formulae or media requirements for species during culture period • operation process for effective production of algal or live-feed cultures: <ul style="list-style-type: none"> • setting up • initiating and breeding • monitoring health and growth • harvesting and cleaning up • signs of health or ill health in species and mitigation methods • risk factors that could affect the quality of algal or live-feed cultures during production • physio-chemical requirements for the culture species • cross contamination minimisation techniques • relevant legislation relating to algal or live-feed culture production. 	
Assessment Conditions	
<p>Assessment of this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • skills must be demonstrated in an aquaculture workplace or an environment that accurately represents workplace conditions • resources, equipment and materials: <ul style="list-style-type: none"> • inoculum culture • monitoring equipment • nutriment formulae or media • production and harvest equipment • personal protective equipment • production vessels and water treatments • water sampling tests • specifications: <ul style="list-style-type: none"> • production schedule and workplace procedures for algal or live-feed cultures production, including advice on health and safety, hygiene and environmental requirements • relationships <ul style="list-style-type: none"> • interactions with supervisor and team members. <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
Links	Companion Volumes, including Implementation Guides, are available at VETNet:

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