



Australian Government

SFIAQU506 Manage an aquaculture research trial

Release: 1

SFIAQU506 Manage an aquaculture research trial

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 conceptualise, develop, implement and manage an aquaculture research trial.

This unit applies to individuals who have technical and/or management responsibilities for making improvements to aquaculture 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. Develop a research trial	1.1 Identify and document aquaculture problem or opportunity 1.2 Consult and inform relevant staff and management about the problem or opportunity 1.3 Develop a central hypothesis or research trial question 1.4 Develop the experimental design according to accepted scientific principles and statistical validity 1.5 Engage external experts to assist in experiment design in line with workplace practices

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Plan farm research trial	2.1 Identify materials and infrastructure for research trial 2.2 Develop a budget for research trial 2.3 Present experimental design, materials, infrastructure and budgets to management and relevant staff 2.4 Ensure procedures for research trial meet health and safety and environmental requirements
3. Conduct research trial procedures	3.1 Communicate monitoring procedures for research trial to relevant staff 3.2 Apply all treatments in the agreed experimental design to corresponding replicates 3.3 Gather and collate data generated in the agreed experimental design 3.4 Check research trial infrastructure for faults according to workplace procedures 3.5 Record and report general observations to the manager
4. Record and analyse relevant data	4.1 Record data gathered from research trial in an agreed format 4.2 Analyse data using an appropriate analytical tool and assistance from external expert
5. Present research trial findings	5.1 Compile and format research trial findings according to the communications strategy within documented trial plan 5.2 Communicate findings to relevant staff and other stakeholders according to the communications strategy on research trial 5.3 Seek feedback from relevant staff and other stakeholders about potential implementation of positive results and recommendations from the research trial

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
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Skill	Description
Reading	Interprets and extracts comprehensive and complex information from a range of technical and scientific sources
Writing	- Prepares proposals and presentations using workplace formats and language appropriate for the purpose - Records and maintains trial data and observations
Numeracy	Compiles data and completes a statistical analysis to determine trial trends and outcomes
Oral communication	- Participates in verbal exchanges using clear and concise language to convey and clarify technical information - Uses active listening and questioning techniques to elicit the views and opinions of others
Navigate the world of work	- Works independently and collectively within broad parameters, taking responsibility for plans, decisions and outcomes relating to the research trial - Understands how own role contributes to broader workplace goals and business operations
Interact with others	- Liaises and consults collaboratively with others, taking initiative to seek advice, explore issues and present recommendations relevant to the research trial - Selects and uses appropriate communication protocols and conventions when seeking information and sharing information with others
Get the work done	- Plans, schedules and coordinates multiple research trial activities and resources, monitoring actions against stated goals, and adjusting plans and resources to cope with contingencies - Uses workplace digital systems and tools to access, record, analyse and present information and data relevant to farm-based aquaculture research trial

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
SFIAQU506 Manage an aquaculture research trial	Not applicable	New unit	No 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 SFIAQU506 Manage an aquaculture research trial

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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 developed and managed an aquaculture research trial on at least one occasion, including:

- developing research question and experiment design parameters for the research trial
- allocating resources for the research trial
- conducting and testing research methodologies and outcomes
- communicating effectively about the goals, procedures and outcomes of the research trial
- recording and analysing data using a reliable tool
- documenting research findings and outcomes.

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:

- key principles of experimental and scientific design processes
- sources of advice and expertise relevant to research trial
- types and methods of statistical analyses
- methods and formats for reporting research outcomes and recommendations
- operation, maintenance and calibration of monitoring equipment.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in an aquaculture facility or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- materials and resources to support the research trial
- monitoring equipment to collect data
- technology for collating, analysing and presenting data and information
- specifications:
 - access to health and safety and environmental policies and legislation relating to aquaculture operations
- relationships:
 - access to personnel for advice and expertise relevant to research trial.

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

Links

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