

Modification history

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

SFIAQU513	Manage a farm-based aquaculture research trial
Application	<p>This unit of competency describes the skills and knowledge required to conceptualise, develop, implement and manage a farm-based aquaculture research trial.</p> <p>This unit applies to individuals who have technical and/or management responsibilities for making improvements to aquaculture operations.</p> <p>No occupational licensing, legislative or certification requirements apply to this 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. Design on farm research trial	1.1 Identify and document the on-farm problem or opportunity 1.2 Consult and inform relevant staff and management about the on-farm problem or opportunity 1.3 Develop a central hypothesis or research trial question 1.4 Develop the experimental design according to accepted scientific principles including statistical validity 1.5 Engage external experts to assist in experiment design in line with workplace practices
2. Plan on farm research trial	2.1 Identify materials and infrastructure for the on-farm research trial 2.2 Develop a budget for the on-farm research trial 2.3 Present experimental design, materials, infrastructure and budgets to management and relevant staff 2.4 Make an application for external funding to assist with the on-farm research trial, in line with workplace practices 2.5 Ensure procedures in farm research trial meet health and safety and environmental requirements
3. Carry out on farm research trial procedures	3.1 Communicate monitoring procedures for on-farm 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 on-farm research trial in an agreed format 4.2 Analyse data using an appropriate analytical tool and assistance from external expert according to workplace requirements
5. Present farm research trial findings	5.1 Compile and format farm 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 farm research trial 5.3 Seek feedback from relevant staff and other stakeholders about potential implementation of positive results and recommendations from the on-farm research trial

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 and extract comprehensive and complex information from a range of technical and scientific sources
Writing	<ul style="list-style-type: none"> Prepare proposals and presentations using workplace formats and language appropriate for the purpose Record and maintain trial data and observations
Numeracy	<ul style="list-style-type: none"> Compile data and complete a statistical analysis to determine trial trends and outcomes
Oral communication	<ul style="list-style-type: none"> Participate in verbal exchanges using clear and concise language to convey and clarify technical information Use active listening and questioning techniques to elicit the views and opinions of others
Navigate the world of work	<ul style="list-style-type: none"> Work independently and collectively within broad parameters taking responsibility for plans, decisions and outcomes relating to the research trial Understand how own role contributes to broader workplace goals and business operations
Interact with others	<ul style="list-style-type: none"> Liaise and consult collaboratively with others taking initiative to seek advice, explore issues and present recommendations relevant to the research trial Select and use appropriate communication protocols and conventions when seeking and sharing information with others
Get the work done	<ul style="list-style-type: none"> Plan, schedule and coordinate multiple research trial activities and resources, monitoring actions against stated goals, adjusting plans and resources to cope with contingencies Use 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
SFIAQU513 Manage a farm-based aquaculture research trial	NA	New unit	NA

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273
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TITLE	Assessment requirements for SFIAQU513 Manage a farm-based aquaculture research trial
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 developed and managed a farm-based aquaculture research trial including:</p> <ul style="list-style-type: none"> • developing research question and experiment design parameters for an on-farm research trial • planning and undertaking an on-farm research trial • allocating resources for an on-farm research trial • communicating with staff and management about the goals, procedures and outcomes of the on-farm research trial • collecting, recording and analysing data • testing research methodologies and outcomes • presenting research findings and outcomes, and recommendations. 	
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"> • 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	
<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 on-farm facility or an environment that accurately represents workplace conditions • resources, equipment and materials: <ul style="list-style-type: none"> • materials and resources to support the on-farm research trial • monitoring equipment to collect data • technology for collating, analysing and presenting data and information • specifications: <ul style="list-style-type: none"> • access to health and safety and environmental policies and legislation relating to aquaculture operations • relationships: <ul style="list-style-type: none"> • access to personnel for advice and expertise relevant to research trial. <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: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273