



Australian Government

AHCECR302 Collect and preserve biological samples

Release: 2

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Modification History

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Release 11.0.
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Release 6.0.

Application

This unit of competency describes the skills and knowledge required to identify sampling method, and collect and preserve biological samples for later processing and/or analysis.

The unit applies to individuals who work in an environment where biological tests are required, and who work under broad supervision and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources and for solving problems.

Legislation, regulations and by-laws relating to the collection and removal of plant materials from public and private land apply nationally and in some states, territories and local jurisdictions. Users are advised to check with the local, relevant authority.

Pre-requisite Unit

Nil

Unit Sector

Ecological Restoration (ECR)

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. Plan for collection	1.1 Confirm the purpose and schedule for sampling with manager 1.2 Identify sampling site location and obtain approval for site access from stakeholders

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify samples to be collected and preserved 1.4 Identify and comply with legislative and regulatory requirements governing biological samples and sampling methods 1.5 Organise equipment required for biological sampling and preserving 1.6 Assess range of likely operating conditions, hazards and sensitive environments for impact on sampling and testing 1.7 Identify hazards, assess risk and implement controls according to workplace health and safety policies and procedures
2. Prepare equipment and resources	2.1 Obtain equipment required for sampling and preserving 2.2 Check equipment for availability and serviceability 2.3 Clean and sanitise equipment to maintain integrity of samples and biosecurity conditions 2.4 Collect record sheets necessary for task 2.5 Transport resources and personnel safely to sampling sites and prepare for use
3. Carry out biological sampling and preserving procedures	3.1 Collect samples according to sampling plan 3.2 Apply environmental sustainability and biosecurity practices to collection processes 3.3 Preserve and record samples in accordance with sampling standards and guidelines 3.4 Prepare, package and dispatch samples for external analysis in accordance with sampling schedule and laboratory standards 3.5 Observe and record ambient and antecedent environmental conditions 3.6 Operate equipment and undertake work according to workplace health and safety requirements 3.7 Report and deliver presentable sample collection according to workplace procedures
4. Complete collection of biological sampling activities	4.1 Clean, sanitise and store equipment and clothing 4.2 Repair damaged or malfunctioning equipment 4.3 Record site sampling results and observations according to workplace recording procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.4 Report changes in field conditions and equipment to manager

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
Writing	Accurately complete workplace sampling records and reports using clear language and industry terminology
Numeracy	Use appropriate measurement techniques to ensure accuracy when collecting weights and volumes of biological samples

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCECR302 Collect and preserve biological samples Release 2	AHCECR302 Collect and preserve biological samples Release 1	Updated performance evidence	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCECR302 Collect and preserve biological samples

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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 collected and preserved different samples from at least two monitoring sites with a total of at least five from each site.

There must also be evidence that the individual has:

- established the sampling purpose and schedule
- planned and arranged the collection with stakeholders
- prepared equipment and facilities
- carried out biological sampling according to monitoring program and enterprise procedures
- preserved and recorded samples and forwarded for testing according to monitoring program requirements
- recorded sampling data and observations
- reported outcomes of collection
- applied workplace health and safety and biosecurity procedures throughout collection process.

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:

- types of biological samples that may be included in the plan, including:
 - water
 - microorganisms
 - fungi

- micro and macro invertebrates
- plants
- animals including fish
- industry biological sampling and preserving guidelines and protocols
- identifying and selecting representative sampling sites
- field procedures for collecting and preserving biological samples for different environments and conditions, including:
 - random sampling
 - stratified sampling
 - systematic sampling
- collecting equipment and methods for specific environments and biological specimens, including:
 - marine and aquatic
 - terrestrial
 - arboreal
- preservation equipment and processes, including:
 - storage containers
 - labels and labelling information
 - preserving techniques and materials
- recognition of fauna and flora to be sampled
- health and safety considerations when sampling, including:
 - weather conditions and impact on site safety
 - personal protective equipment
 - toxicological and other personal health risks
 - physical site conditions and hazards.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated at a sampling site as specified in the Performance Evidence
- resources, equipment and materials:
 - specific tools and equipment required for the specified biological sampling to be performed
 - personal protective equipment
 - preservatives and cleaning agents
- specifications:
 - workplace procedures and processes for sample collection preservation and storage
 - specific safety data sheets for preservatives and cleaning agents

- workplace sampling plan
- standards and protocols for biological sampling.

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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