Australian Government

Department of Education, Employment and Workplace Relations

FDFAU4005A Audit bivalve mollusc growing and harvesting processes

Revision Number: 1

FDFAU4005A Audit bivalve mollusc growing and harvesting processes

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge to support a food safety audit of food safety programs of bivalve mollusc producers. The unit covers on-shore and wild growing, harvesting, cleaning, post-harvest handling and storage, stock movement, depuration (where applicable) and wet storage.

Application of the Unit

Application of the unit	This unit applies to the role of a food safety auditor responsible for auditing a bivalve mollusc growing and harvesting process. These audits would typically occur within the context of auditing a HACCP-based food safety program that defines related prerequisite program requirements. The audits are supported by state and territory government regulations for prescribing processes and requirements relating to the production of bivalve molluscs. This unit does not cover the skills and knowledge to audit the classification of growing areas. This unit supports relevant legislation, such as food standards contained in the Food Standards Code and industry codes of practice relating to validation and verification of a HACCP-based food safety program, and should be read in conjunction with these documents. Both regulatory and commercial audit system owners may specify additional certification requirements of auditors eligible to audit food safety programs within their system.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
	FDFAU4002A	Communicate and negotiate to conduct food safety audits
	FDFAU4003A	Conduct food safety audits
	FDFAU4004A	Identify, evaluate and control food safety hazards

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and assess food safety hazards and related control options for growing and harvesting bivalve molluscs	1.1. Microbiological food safety hazards that could present a risk in bivalve molluscs at the point of consumption are identified by type and origin and assessed to determine risk level and control requirements 1.2. Chemical food safety hazards that could present a risk in bivalve molluscs at the point of consumption, including toxin presence, are identified by type and assessed to determine risk level and control requirements 1.3. Control requirements and methods to ensure that bivalve molluscs meet food safety objectives are identified
2. Confirm that appropriate evidence supports validation of growing and harvesting bivalve molluscs	2.1. Validation evidence and records are reviewed to confirm that an appropriate level of validation has been applied 2.2. Evidence used by the business to validate the process is identified and assessed to confirm that it is credible and adequate to meet the food safety objective
3. Verify bivalve mollusc growing and harvesting processes	3.1. System records required to support verification against relevant shellfish quality programs are identified, collected and reviewed 3.2. Business documentation is reviewed and inspections are conducted to confirm that facilities and equipment design and components comply with regulatory and business standards 3.3. Business documentation is reviewed and inspections are conducted to confirm that operational monitoring and testing procedures and frequency meet regulatory requirements, and industry and business standards

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Ability to

- interpret and apply relevant legislation, codes of practice and technical standards relating to growing and harvesting bivalve molluscs
- identify microbiological and chemical food safety hazards to be controlled by bivalve mollusc growing and harvesting practices and processes
- inspect facilities and equipment to confirm that regulatory, industry and business standards are met
- review evidence used to validate the food safety control process
- review workplace records and other documentation to verify that the food safety program relating to the production of bivalve molluscs meets regulatory requirements and is effectively implemented

Required knowledge

Knowledge of:

- regulations, codes of practice, guidelines and Australian standards relating to production of bivalve molluscs and related role of government in overseeing implementation of shellfish quality programs
- basic biology and physiology of bivalve molluscs and related sources of food safety risk
- pathogens that can occur in bivalve molluscs and related survival and growth characteristics and control methods
- chemicals that pose a food safety risk in bivalve molluscs
- sources of environmental contamination that can present a food safety risk in the growing and harvesting of bivalve molluscs and related food safety controls, including risks associated with both on-shore and wild fisheries
- sources of information on acceptable and legal product quality requirements, including legal limits to ensure product safety
- classifications applying to harvesting areas, system for monitoring and determining status, sources of advice on classification and methods of communicating classification information
- sources of pre- and post-harvest contamination and related control requirements
- risks and related control methods to prevent cross-contamination, including sorting and cleaning
- prerequisite programs required to support bivalve mollusc growing and harvesting
- basic principles of water sampling and test methods
- principles and associated control measures relating to effective purging of shellfish, including methods, such as relaying and depuration, when practised in accordance

REQUIRED SKILLS AND KNOWLEDGE
with state and territory legal and regulatory requirements • risks associated with depuration and wet storage methods, and related control methods and prerequisite programs that meet legal requirements • sources of pre- and post-harvest contamination, such as sewage, algal biotoxins and vibrio organisms and related control requirements • stock handling and storage risks and control methods • facilities and equipment used in the growing and harvesting of bivalve molluscs, including features required to meet regulatory requirements

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competence in this unit must be able to provide evidence that they can verify that food safety programs covering growing and harvesting bivalve molluscs meet regulatory, industry and business standards. Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competency in this unit must be achieved in accordance with food safety standards and regulations.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: • participate in audits of HACCP-based food safety programs to demonstrate ability and knowledge of technical aspects of growing and harvesting bivalve molluscs. Audit scenarios must include at least one audit involving relaying, depuration or wet storage.
Context of and specific resources for assessment	Competency is to be assessed in an environment where bivalve molluscs are grown and harvested. Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints. The following resources must be available: • food safety programs covering bivalve mollusc growing and harvesting processes • food safety related documentation typical of commercial growing and harvesting businesses and used for the purpose of verification • plant and equipment that would typically be used in a commercial bivalve mollusc growing and harvesting business.
Method of assessment	This unit only covers the technical skills and knowledge related to the specific area of risk. Generic food safety auditing skills and knowledge are covered in prerequisite units. While participation in audit processes should follow good auditing practice as specified by prerequisite units, formal assessment of generic food safety auditing

EVIDENCE GUIDE	
	competence does not need to be repeated when assessing this unit. The following assessment methods should be considered to gather sufficient and valid evidence of competence: • observation and a report covering the audits specified in this • oral and written questioning to test the level and application of underpinning knowledge • workplace example or scenario to allow verification of records for food safety to be demonstrated. Audits conducted for the purpose of assessment must be witnessed by an auditor competent to audit bivalve growing and harvesting processes. The audits conducted for the purpose of assessment must be witnessed by an auditor competent to audit bivalve mollusc growing and harvesting processes. Assessment methods must satisfy the endorsed Assessment Guidelines of the FDF10 Food Processing Industry Training Package.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Microbiological food safety hazards	Microbiological food safety hazards may include: • Hepatitis A virus • Norwalk virus • *Vibrio parahaemolyticus* • *V. vulnificus* • *Salmonella spp* • pathogenic Escherichia coli
Bivalve molluscs	Bivalve molluscs may include: • oysters (Pacific, Sydney rock, Angassi (native) and pearl) • mussels • pipis • clams (strawberry and razor) • cockles (sand, dog, blood and mud) • scallops and other adductor bivalves, including pearl oyster meat (unless adductor muscle only)
Chemical food safety hazards	Chemical food safety hazards may include common origins of chemical contamination, including: • phycotoxins: harmful algal blooms, such as amnesic shellfish poisoning (ASP), neurotoxic shellfish poisoning (NSP), diarrhetic shellfish poisoning (DSP) and paralytic shellfish poisoning (PSP) • pesticides • water additives • toxic metals • polychlorinated biphenyls (PCBs)
Validation	Validation refers to obtaining evidence to confirm that a HACCP-based food safety program is complete and effective and will deliver the

RANGE STATEMENT	
	expected food safety outcomes
Validation evidence	Validation evidence confirms that control measures are capable of being consistently effective and may include the application of: • existing Australian legislative requirements • challenge tests • peer reviewed scientific papers • targeted scientific reports • validation already carried out in other jurisdictions and recognised by the responsible authority • mathematical modelling (e.g. predictive microbiology models) • industry codes of practice (where implementation by food business is verified during audits)
Verification	Verification refers to methods and procedures used to carry out monitoring, including sampling and testing to provide evidence that the specifications set by relevant legislation and codes of practice continue to be met
Shellfish quality programs	Australian shellfish quality assurance programs administered by state and territory shellfish control authorities
Business standards	Business standards refer to standards or technical specifications set by the system owner based on and in addition to regulatory requirements that relate specifically to food safety
Relevant legislation, codes of practice and technical standards	Relevant legislation, codes of practice and technical standards relating to bivalve molluscs may include: • Food Standards Code 4.2.1: Primary Production and Processing Standards for Seafood (Australia only), FSANZ • Australian Shellfish Quality Assurance Program: Operations Manual, May 2005 • AQIS Australian Shellfish Quality Assurance Program, Export Standards, 2004 • state and territory regulations, codes of

RANGE STATEMENT	
	practice and guidelines
Role of government in overseeing implementation of shellfish quality programs	Role of government in overseeing implementation of shellfish quality programs: • responsibility and capacity to control food safety hazards is shared by the state and territory governments through the relevant state and territory authority responsible for managing harvesting areas and by the farmer who is responsible for managing the harvest and post-harvest handling and storage

Unit Sector(s)

Unit sector	Food safety auditing

Competency field

Competency field	

Co-requisite units

Co-requisite units		