

General Introduction

This programme aims to provide an introduction to how appropriate bivalve handling can ensure consumer protection by way of the effective purification¹ of bivalves prior to despatch. The programme will introduce the concepts and terms that apply to bivalve purification operations and will promote the application of this knowledge in the seafood industry. Training courses based around this programme will provide the initial learning input for persons new to purification and should form the basis for further formal and informal learning and development.

A practical approach to training is recommended and individuals should be actively encouraged to participate fully. Examples used during the delivery of training should reflect current best practice within the industry.

The syllabus for the programme *bivalve purification operations* is as follows:

All objectives to be prefixed by the words: The expected outcome is that, *in the context of bivalve purification*, the course participant is able to:

1. Overview

- 1.1. Describe briefly what is meant by bivalve purification operations;
- 1.2. State the health and safety requirements associated with the purification process;
- 1.3. List the threats to human health posed by consuming bivalves
- 1.4. State the food safety requirements associated with the purification process;
- 1.5. List the types of purification systems
- 1.6. State their responsibilities under food safety legislation
- 1.7. Identify the legal requirements controlling the depuration process;
- 1.8. List the classifications given to shellfish growing areas and describe how these impact on the depuration process

2. The principles of shellfish handling and storage

- 2.1. Explain how to prepare shellfish for adding to the purification system
- 2.2. Explain why it is important to remove dead or damaged shellfish before depuration begins;
- 2.3. Describe how to handle bivalves as live animals and the problems associated with improper handling;
- 2.4. Describe how shellfish become stressed and why it is important to minimise the stress caused to shellfish

¹ Purification and depuration are in this context interchangeable.

3. The principles of bivalve purification operations

- 3.1. Describe how to prepare a purification system for receiving shellfish
- 3.2. Explain why shellfish are washed before and after depuration
- 3.3. List the environmental conditions required for effective depuration and the parameters for:
 - Water flow;
 - Salinity;
 - Temperature;
 - Oxygenation;
 - Sterilisation;
 - Duration;
 - Biomass density;
 - Species specific needs;
- 3.4. List the requirements for loading the system and the density of bivalves in the system;
- 3.5. describe the signs which indicate that shellfish are purging
- 3.6. Describe the role of disinfection and how this is achieved in purification systems.
- 3.7. Describe the risks presented by harmful algal blooms.

4. Food safety and bivalve purification

- 4.1. Describe HACCP and list the identified critical control points controlling the depuration process;
- 4.2. List the identified critical control points associated with the storage and dispatch of shellfish;
- 4.3. List the risks of cross contamination and re-contamination following depuration;
- 4.4. List the key legal requirements controlling the dispatch of shellfish;