



## National Unit Specification: general information

**UNIT** Aquaculture: Floating Cage Fish Farm Operations (SCQF level 5)

**CODE** F6TJ 11

### SUMMARY

The Unit is designed to enable candidates to develop an appreciation of the use of floating cages in freshwater and marine fish farming. On completion, candidates will be able to recognise the main types of cage, the types of materials used in cage construction and the types of mooring system. Candidates will also gain experience in working on these structures.

### OUTCOMES

- 1 Describe floating cage systems.
- 2 Describe husbandry operations for a floating cage fish farm.
- 3 Carry out husbandry operations for a floating cage fish farm.

### RECOMMENDED ENTRY

Entry is at the discretion of the centre.

### CREDIT VALUE

1 credit at SCQF level 5 (6 SCQF credit points at SCQF level 5\*).

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

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### Administrative Information

**Superclass:** SJ

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## **National Unit Specification: general information (cont)**

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### **CORE SKILLS**

There is no automatic certification of Core Skills in this Unit.

There are opportunities for Core Skills development; these are highlighted in the Support Notes of this Unit Specification.

## **National Unit Specification: statement of standards**

### **UNIT      Aquaculture: Floating Cage Fish Farm Operations (SCQF level 5)**

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

#### **OUTCOME 1**

Describe floating cage systems.

##### **Performance Criteria**

- (a) Identify and describe the types of floating cage commonly used.
- (b) Consider the suitability of different types of floating cage systems with regard to given site conditions.
- (c) Describe cage configurations and mooring systems used for a given site.
- (d) Outline the procedures involved in fitting and maintaining cage nets.

#### **OUTCOME 2**

Describe husbandry operations for a floating cage fish farm.

##### **Performance Criteria**

- (a) Outline the processes used to stock floating cages with fish.
- (b) Describe feeding systems used to feed fish in floating cages.
- (c) Describe the monitoring procedures used on a floating cage farm.
- (d) Describe the methods used to remove fish from floating cages.

#### **OUTCOME 3**

Carry out husbandry operations for a floating cage fish farm.

##### **Performance Criteria**

- (a) Maintain given floating cage nets in accordance with appropriate health and safety requirements.
- (b) Feed fish in a given floating cage in accordance with appropriate health and safety requirements.
- (c) Conduct monitoring procedures for a given floating cage fish farm in accordance with appropriate health and safety requirements.

## **National Unit Specification: statement of standards (cont)**

**UNIT** Aquaculture: Floating Cage Fish Farm Operations (SCQF level 5)

### **EVIDENCE REQUIREMENTS FOR THIS UNIT**

Evidence is required to demonstrate that candidates have met the requirements of all Outcomes and Performance Criteria

#### **Outcome 1 — Written and/or recorded oral evidence**

The candidate must:

- ◆ identify and describe three types of floating cages commonly used in commercial fish farming
- ◆ select suitable cages for two given sites
- ◆ describe one cage configuration and mooring system for a given site
- ◆ describe the tasks involved in fitting and maintaining cage nets for a given farm

#### **Outcome 2 — Written and/or recorded oral evidence**

The candidate must describe the following husbandry operations for a floating cage fish farm:

- ◆ One method of stocking fish
- ◆ Two methods of feeding fish
- ◆ Procedures for monitoring fish growth, feeding response and health
- ◆ Procedures for monitoring two environmental conditions
- ◆ Two methods for moving live fish from a floating cage
- ◆ Two methods for removing fish mortalities from a floating cage

#### **Outcome 3 — Performance evidence**

The candidate must be able to perform the following tasks on a floating cage system in accordance with recognised health and safety requirements:

Candidates will:

- ◆ assist in the maintenance of a cage net
- ◆ assist in the fitting of a top net
- ◆ feed fish on a minimum of one occasion
- ◆ monitor fish growth, feeding response and health
- ◆ monitor two environmental conditions

Assessor observation checklists and other assessment records should be maintained and kept up to date to keep track of candidate progress and to provide evidence for internal and external verification purposes.

The Assessment Support Pack for this Unit provides appropriate instruments of assessment for Outcomes 1 and 2, assessor checklists for Outcome 3 and assessor guidance. Centres wishing to develop their own assessments should refer to the assessment support pack to ensure a comparable standard.

Centres must be satisfied that the evidence submitted is the work of individual candidates.

## National Unit Specification: support notes

### UNIT Aquaculture: Floating Cage Fish Farm Operations (SCQF level 5)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

#### GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This is an optional Unit in the National Progression Award in Aquaculture at SCQF level 5, but is also available as a free-standing Unit.

This Unit is aligned to the following LANTRA Sector Skills Council's National Occupational Standard (NOS) Units:

- ◆ Maintain the Aquatic Production Environment (CU52)
- ◆ Prepare and stock fish holding Units (Aqc 1)
- ◆ Harvest fish for human consumption (Aqc 3)
- ◆ Feed finfish (Aqc 4)

This Unit covers floating cage types and materials used to construct them, as well as cage configurations and mooring systems, site selection criteria and husbandry tasks that take place on commercial floating cage systems.

Outcome 1 covers floating cage types, materials used in the manufacture of cage components, cage configurations, mooring systems and site selection criteria.

The use of certain floating cage types for specific sites should also be highlighted.

Cage net fitting and maintenance will be described to include predator nets and cage nets that hold fish.

Outcome 2 covers the description of husbandry tasks that take place on a floating cage system, this should cover sites in freshwater and marine situations.

This will include:

- ◆ Methods of stocking floating cages with fish
- ◆ Methods of feeding fish in a floating cage
- ◆ Monitoring fish growth, feeding response and fish health
- ◆ Monitoring environmental conditions such as water temperature, turbidity and salinity

Outcome 3 covers practical husbandry tasks on one floating cage system and should include:

- ◆ Maintaining a cage net and fitting a top net
- ◆ Feeding fish in a floating cage
- ◆ Monitoring fish growth, feeding response and fish health
- ◆ Monitoring two environmental conditions from: water temperature; turbidity; salinity

Candidates must understand the importance of adhering to health and safety procedures and safe working practices during all practical activities.

## **National Unit Specification: support notes (cont)**

**UNIT**      Aquaculture: Floating Cage Fish Farm Operations (SCQF level 5)

### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

Introduction to floating cages including types, materials used in manufacture, cage mooring and the use of cage nets could be delivered in a classroom situation with sessions used to investigate the appropriate cage type for a selection of sites.

A visit to a working floating cage site could be used to demonstrate the cage types, materials, mooring and cage nets. If possible, visits to more than one site would help candidates to appreciate differences in cage type and mooring system.

Access to floating cages is necessary to fulfil the requirements of Outcome 3. Candidates must feed fish, fit predator nets, clean and repair cage nets, monitor fish in cages for growth and disease as well as the environment around the cages.

There is scope for student-centred learning exercises based on text references, internet-based resources and interactive IT-based learning objects presented within a virtual learning environment (VLE).

### **OPPORTUNITIES FOR CORE SKILL DEVELOPMENT**

There are opportunities to develop a range of Core Skills, including *Communication*, *IT*, *Problem Solving* and *Working with Others*.

Outcomes 1 and 2 have opportunities for written and/or oral *Communication* and *IT*, particularly if a student-centred approach is adopted.

During practical sessions for Outcome 3, candidates would have the opportunity to work as a member of a team and develop skills in *Problem Solving* and *Working with Others*.

### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

Outcomes 1 and 2 could be assessed using an integrated open-book approach such as a portfolio of evidence.

Outcome 3 requires the observation of practical activity with the results recorded on checklists to satisfy the Performance Criteria. Evidence could be gathered on an ongoing basis through the observation of candidates performing routine operations and monitoring of the fish and the cage environment.

Time should be allowed for any necessary re-assessment.

## **National Unit Specification: support notes (cont)**

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### **Opportunities for the use of e-assessment**

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

### **DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)