



# Code of Good Practice

## Introduction & Background



code of  
good practice  
scottish finfish aquaculture

# INTRODUCTION AND BACKGROUND TO THE CODE

## Table of Contents

	Page No.
<b>INTRODUCTION .....</b>	<b>2</b>
➤ <b>Reflecting nature .....</b>	<b>4</b>
➤ <b>Farming in fresh water .....</b>	<b>5</b>
➤ <b>Farming in sea water .....</b>	<b>5</b>
➤ <b>The fish farming environment .....</b>	<b>7</b>
➤ <b>Preparing fish for market.....</b>	<b>7</b>
<b>BEHIND THE CODE.....</b>	<b>8</b>
<b>KEY OBJECTIVES OF THE CODE.....</b>	<b>8</b>
<b>DOCUMENT STRUCTURE .....</b>	<b>9</b>
<b>DEMONSTRATING COMPLIANCE WITH THE CODE .....</b>	<b>11</b>
➤ <b>Reporting industry performance .....</b>	<b>12</b>
<b>NOTES ON THIS PRESENTATION OF THE CODE .....</b>	<b>12</b>
<b>GUIDING PRINCIPLES .....</b>	<b>13</b>

*Front cover images courtesy of SSPO*

# INTRODUCTION AND BACKGROUND TO THE CODE

## INTRODUCTION

Fish is an excellent source of dietary protein and it also provides a broad range of important nutrients for human consumers. Fish is digestible and tasty, and oily fish in particular contains components such as the omega-3 fatty acids that cannot be supplied by other foods. The production of farmed fish in the 21st century is a very efficient and sophisticated process. Fish are highly efficient converters of food into flesh; they are cold-blooded, so they do not require lots of energy to maintain a high body temperature; and they are 'neutrally buoyant', so do not have to expend much energy in maintaining position and in moving through the water. Farming fish is one of the most natural ways of producing food and has become essential in addressing our needs for global food security.

*“Just like in agriculture, the first priorities remain producing healthy food for consumers as well as protecting the welfare of the animals and respecting the environment. Fish farmers depend on clean water and sanitary living conditions. In many cases, the fish or shellfish can find the nutrients that they need in the environment but, where necessary, the farmers provide additional feed to ensure a balanced and healthy diet. All of this is done in adherence to the strict European environmental and consumer protection standards so that fish farmed in the EU is sustainable, fresh, safe, locally farmed and easily traceable.”* ([EU Commission – Farmed in the EU – May 2014.](#))

Fish farming is a major component of [Scotland's Food & Drink strategy](#) and the Scottish aquaculture industry is aligned with Government in working towards the 2020 growth targets stated in its [National Marine Plan](#).

The farming of finfish, especially Atlantic salmon, trout and halibut, is at the heart of Scottish food production and is one of Scotland's most important rural industries. The large and small businesses that produce high quality Scottish farmed fish make

a vitally important contribution to rural economies across the country and, of course, to the Scottish economy as a whole.

The professionalism surrounding Scottish fish farming is encapsulated in the Code of Good Practice for Scottish Finfish Aquaculture. The Code underpins the world class standards that surround all aspects of the farming process. Scottish fish farming is already amongst the most highly regulated food production businesses in the world, with over a dozen regulatory bodies having responsibility for administering and policing many hundreds of pieces of EU, UK and Scottish legislation. Despite this, fish farmers in Scotland have agreed that it is important that members of the public should be able to understand that good practice extends well beyond the scope of statutory regulation and that the Code should be the means to explain the farming process and the professionalism with which fish are farmed.

First launched in 2006, as *the* production standard for the farming of all finfish species in Scottish waters, the Code has been widely adopted by fish farming businesses, and its world-leading reputation has been acknowledged across the international fish farming community and beyond. It contains the most comprehensive set of provisions of its kind, with numerous compliance points across all aspects of fish production. It is continually reviewed to ensure that it remains at the cutting edge of scientific and technological progress.

Since its introduction, the Code's provisions have been inspected and audited by independent bodies specialising in fisheries, aquaculture and other aspects of seafood production. A number of countries, including a number in the developing world, are looking at the Code as a model for the self regulation of their own aquaculture industries.

While previous iterations of the Code have focused mainly on the different issues that are dealt with by fish farmers, this current version has been restructured to set out good practice by area of activity. This change in presentation style is intended to set out logically all the different elements of good practice involved in the production of broodstock (adult fish from which eggs and sperm are derived); in freshwater

hatcheries, tanks, ponds and raceways; in pens in freshwater lochs; in seawater lochs; in seawater tanks; and in the final stages of production where harvested fish are processed for the marketplace. This format makes the Code more accessible to the general reader. Furthermore, it makes it easier for farmers to keep up to date and use the Code to best effect, allowing them to show, through independent auditing, that they are complying with good practice.

Fish farming is a complex and highly technical business and the Code assumes a certain level of understanding of the detail surrounding each of the areas set out in the following text. Should any further detail be required, it may be obtained through the CoGP Management Group or from the Scottish aquaculture industry organisations.

The Code covers all finfish aquaculture species, although clearly not all compliance points will apply to all species. The assessment and auditing procedures which are adopted are relevant to the species in question and to the particular methods of production adopted.

The Code is available to all finfish farmers operating in Scotland and it is the intention that it should be adopted by all producers. In some cases adoption of the Code is a requirement of membership of the relevant industry organisations.

## **Reflecting nature**

The stages and steps involved in the farming of fish mirror their natural life cycle, using scientific knowledge and state of the art technology to ensure that the fish enjoy the highest standards of health and welfare and that they are able to grow and thrive. Fish produced in this way is safe and nutritious, and is available all year round, whether as fresh fish, processed, smoked, or as one of the many different cuts available throughout the world in fishmongers, supermarkets and restaurants.

## Farming in fresh water

The Code lists over 430 points that describe good practice in freshwater fish farming. All of these points are independently audited to demonstrate that good practice is being followed.

There are around 150 freshwater fish farms in Scotland, primarily producing young salmon for ongrowing in the sea or market-sized trout for the table. These hatcheries and farms are located in areas where the water is pristine and in good supply all year round. Batches of fish are fully traceable throughout their time in freshwater farms, allowing traceability throughout their whole life and, ultimately, to the fishmonger's counter.

As for all the stages in the production of Scottish farmed fish, the health and wellbeing of the fish is a major concern, and both the fish and the water in which they live are constantly monitored to ensure they meet the required high standard. In addition, all farms are required by the Code to have Veterinary Health Plans and Biosecurity Plans which identify the most important areas of fish health and welfare, and both are kept under continuous review.

As in the wild, finfish farmed in a natural environment can be exposed to naturally occurring disease agents and parasites; proactively preventing health problems is therefore paramount. Health management includes routinely vaccinating the fish to make sure that they are protected against common diseases, in a way corresponding to that adopted for humans and farmed animals. Many tens of millions of fish are vaccinated every year.

## Farming in sea water

The Code sets out over 500 points that describe good practice in seawater fish farming. All these points are independently audited to demonstrate that good practice is being observed.

There are around 250 seawater finfish farms in Scotland. The great majority are salmon farms that consist of arrays of large net pens moored to the sea bed. These are mainly the home for post-smolt salmon which spend between 18 and 22 months swimming in the natural, pristine waters until they have grown to harvest size. Some are marine trout farms which are broadly similar in nature to salmon farms and used to produce large trout, as distinct from the portion-sized table trout that are mainly produced in land-based facilities. Full traceability is carried through from fresh water, with records for each batch of fish transferred from fresh water and grown on in sea water being maintained.

As in fresh water, maintaining the health and wellbeing of fish is a priority and the Code requires farmers to:

- develop Veterinary Health Plans and Biosecurity Plans and continuously keep these under review;
- farm their fish within designated Farm Management Areas (FMAs) with single year classes of fish in each (an approach designed to maximise health);
- communicate with neighbouring farms inside the FMA and co-ordinate their farming activities to support high levels of fish health and welfare;
- ensure that predators, such as seals, are not able to attack or stress the fish.

Because of the importance attached to excellent fish health and welfare, farming companies employ specialist vets, fish health experts and environment managers whose job it is constantly to monitor the farm environment and the health of the fish. Each year, about 8,000 individual fish health checks are carried out, based on the provisions of the Code.

## **The fish farming environment**

Our freshwater and seawater farms are located in areas with optimum growing conditions and pristine water quality allowing farmed fish to thrive throughout their life cycle. Given the reliance that is placed on having such excellent growing conditions, it is vital that fish farmers respect and protect the environment on which they and their fish so heavily depend.

As with other aspects of the Code, environmental provisions extend beyond simple legal compliance. The Code requires all salmon farms to have an Environmental Management Plan, which underpins their sustainability. Environmental Management Plans normally include important aspects such as predator exclusion and deterrence, waste management and disposal and other matters, including wildlife and habitat policies.

Companies employ qualified and experienced environment managers who are responsible for carrying out frequent checks of water quality and loch bed sampling to ensure that any unavoidable impacts of the farms operation remain localised and within acceptable limits.

Throughout the course of a normal production cycle, on each site environmental samples are taken and analysed to ensure that any effects on the environment are within designated limits, confined closely to the vicinity of the farm and transient, being reversed through the natural biological processes of dispersion and assimilation.

## **Preparing fish for the market**

Once Scottish farmed fish have reached market size, they are humanely harvested, rapidly chilled and transported in hygienic containers to state of the art facilities where they are prepared for further processing and, ultimately, for sale. This final part of the production cycle is critically important and, to maintain the high quality of the fish, it is carried out quickly and with great care.

As with all of the other stages in the production of farmed fish, processing is independently inspected and audited, thus ensuring quality, continuity and traceability from egg to plate. The Code and the independent auditing process that runs in parallel with it underpin the responsible and professional approach adopted throughout the farming process.

The standards set out within the Code reinforce the rigour and discipline that are fundamental to the production of Scotland's premier food export.

## **BEHIND THE CODE**

The Code was developed by a panel of fish health, welfare and environment specialists, fish production managers and independent advisors. In establishing the Code in 2006, the fish farming industry sought contributions from a wide range of stakeholders, including environmental NGOs, angling organisations, Scottish Government, regulatory agencies, feed companies, equipment suppliers, fish processors and retailers of Scottish finfish.

The management and review of the Code, and the interface with independent auditing and certification body, are now overseen by the CoGP Management Group. From time to time it is necessary to update the Code's provisions and approaches in light of developing knowledge and experience. The web-based publication of the Code, which has been adopted in recent years, allows that process to be undertaken quickly and efficiently.

## **THE KEY OBJECTIVES OF THE CODE**

The Code is additional to the provisions of the very substantial body of legislation and regulation relating to Scottish aquaculture. Fish farming in Scotland is already subject to extensive statutory regulation. This regulation encompasses each stage in the fish farming process, from the initial planning and approval of a fish farm site,

through to the fine detail of day to day fish farming operations, including the safeguarding of fish health, protection of the marine and freshwater environments and avoidance of adverse impacts on habitats and wildlife. The Code fully recognises the existence of regulatory requirements, and builds on them. The resulting approach is comprehensive, high-quality and strongly based on the management of risk. It embraces the principles of auditable standards, including relevant BS EN standards.

The Code is designed to meet three clear objectives:

- Firstly, a robust, well constructed and closely observed Code of Good Practice plays an important part in helping to achieve balanced and proportionate regulation of the industry's activities, without overwhelming preoccupation with regulatory detail or bureaucracy;
- Secondly, through its adoption and independent auditing, the Code provides assurance to all stakeholders, consumers and the general public that Scottish finfish aquaculture is a highly responsible food sector, producing a range of products of which Scotland can be justifiably proud;
- Thirdly, the Code establishes a high minimum standard of practice for every participating farmer and provides a framework for industry development through continuous improvement, which reflects the Scottish industry's desire to remain at the forefront of good practice.

## DOCUMENT STRUCTURE

This document consists of five main parts:

1. This **Introduction**, which sets the context and highlights background information on fish farming in Scotland.

2. **Explanatory and Contextual Notes** providing definitions of terms used in the Code, along with information on some of the key concepts fundamental to fish farming.
  
3. The **Provisions** of the Code, broken down by the main areas of activity:
  - Chapter 1: Broodstock Sites;
  - Chapter 2: Freshwater Tanks, Ponds and Raceways;
  - Chapter 3: Freshwater Pens;
  - Chapter 4: Seawater Lochs;
  - Chapter 5: Seawater Tanks;
  - Chapter 6: Processing;
  - Chapter 7: Company Headquarters.
  
4. **Annexes** providing further contextual information and details not included within the body of the Code's Provisions:
  - I. Hazard Analysis and Critical Control Points
  - II. Guidelines for a Veterinary Health Plan and Biosecurity Plan
  - III. Risk Assessment Protocol for Fish Health
  - IV. Disinfection Procedures
  - V. Minimising Risks in Wellboat Operations
  - VI. National Strategy for Sea Lice Treatment Control
  - VII. Procedures and Standards for Holding Facilities
  - VIII. Relevant Legislation (project underway to update and expand)
  
5. The **Farm Management Areas** and FMA maps.

Earlier presentations of the Code included the term "**must**" as a reminder of the requirement of an existing legal obligation. In this presentation, references to legal requirements have been removed, to emphasise the fact that ***the provisions of the Code are additional to legal requirements***. Farmers are

expected to observe the full provisions of the law as a matter of course, and it is the industry's statutory regulators, rather than the independent auditors of the Code, who have responsibility for monitoring legal compliance. The Code's auditors focus exclusively on the provisions set out in the body of the text.

The terms “**Should**”, and “**Recommended**” are used throughout the Code and have specific meanings, particularly in the context of independent audits:

- Where the term “**should**” is used, farmers are obliged to meet this provision to remain compliant with the Code.
- Where the term “**recommended**” is used, the “recommendation” remains an auditable objective towards which farmers should strive, recognising that it may not be achievable under all circumstances because of the constraints or details of the existing production systems or local conditions.

## DEMONSTRATING COMPLIANCE WITH THE CODE

Independent auditing of farms is an essential element in the implementation of the Code. While the CoGP Management Group acts as the standard setting body, having responsibility for the preparation of the Code (including its oversight, review, revision and updating), verification of compliance is the responsibility of nominated independent UKAS-accredited Certification Bodies and their associated independent Inspection Services.

In addition to its duties in standard setting, the CoGP Management Group has two main duties in relation to certification and independent auditing of the Code. Firstly, it is responsible for liaison with the independent UKAS-approved Certification Body which coordinates farm audits, reports on their outcomes, and specifies remedial or other action which may be necessary, Secondly, it is responsible for liaison with the independent UKAS-approved Inspection Services who carry out audits of farms and farming systems against the provisions of the Code.

## Reporting industry performance

From 2006 to 2009, the CoGP Management Group reported on the implementation of the Code through the Ministerial Working Group on Aquaculture (MWGA). Under revised arrangements, reporting on the Code is not a function of the new Ministerial Group on Sustainable Aquaculture (MGSA). However the main industry representative bodies will continue to provide published reports on Code, as appropriate.

## NOTES ON THIS PRESENTATION OF THE CODE

This presentation of the Code incorporates the latest scientific and technical information and developments from within the industry. As with previous presentations, it draws on important material from work that has already been undertaken in developing earlier Codes of Practice, including *A Code of Practice to Avoid and Minimise the Impact of Infectious Salmon Anaemia (ISA)*; *The Shetland Salmon Farmers Association Code of Best Practice*; the *British Trout Association Code of Practice*; the *Federation of European Aquaculture Producers Code of Conduct*; the *Scottish Salmon Growers Association's Code of Practice on Salmon Farming and Predatory Wildlife*; and the *Code of Practice on Containment*.

There have been a number of important developments since the previous presentation of the Code, notably the ongoing preparation of a Scottish Technical Standard for Containment, and discussions under the auspices of several of the Sub-Groups of the [Ministerial Group on Sustainable Aquaculture](#). A number of outcomes of these discussions have been brought forward and incorporated into the Code.

## GUIDING PRINCIPLES

Going beyond simple legal compliance, the Code sets out the responsibilities of farmers in dealing with the fish under their care; in managing the environment in which they operate; and in producing high quality food for human consumption.

Implicit within this are duties in relation to:

- Planning, developing and managing aquaculture sites in a manner that ensures the economic, social and environmental sustainability of the operation;
- Engagement with relevant stakeholders in the development and implementation of future policies and practices to enhance the achievement of economic, environmental and social sustainability of the Scottish aquaculture sector;
- Operating fish farms in a manner that ensures the highest standards of fish health and welfare;
- Being good neighbours to other stakeholders who share the freshwater and marine environments.
- Co-operating with, and participating in, appropriate research, technological development and training activities focused on enhancement of the economic, social and environmental sustainability of aquaculture.

It also seeks to advance the following objectives:

- Farmers, Government, regulators and other stakeholders should work together to ensure that Scotland produces its share of the growing world market for aquaculture species;
- Farmers, Government, regulators, investors and other stakeholders should work together to promote growth in production, recognising the needs for sustainable farm production and security in human food supply ;

- Farmers should be aware of their role and responsibility in the seafood chain, which includes manufacturers, processors, transporters, retailers and consumers;
- In order to facilitate informed dialogue between farmers, Government and other stakeholders, all Scottish finfish farmers are encouraged to be part of a national representative organisation;
- Individual farmers should take responsibility for the overall public perception of the aquaculture industry in Scotland and beyond;
- Farmers should foster positive relationships with communities and other stakeholders.

**\*\*\* END \*\*\***