

THE FARMED SALMONID HEALTH HANDBOOK



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IFA *Aquaculture*

Version 2 (2017)



Ireland's EU Structural Funds
Programmes 2007 - 2013

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and the European Union



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Marine Institute
Foras na Mara



Cover photograph courtesy of Kevin Murphy

Internal photographs courtesy of Kevin Murphy, David Brannigan & Marine Institute.

FOREWORD

This handbook was prepared in order to assist producers in establishing a sound framework which will protect animal health and promote fish welfare on Irish salmon and trout farms, as well as providing a platform for training for farm operators and their staff.

The 8 aims of the handbook are to:

1. Reduce the occurrence of disease in fish held in the culture facility.
2. Minimize the spread of disease to stocks within and outside the facility.
3. Maintain an environment that promotes the health of the fish.
4. Maintain an environment that reduces the susceptibility of fish to disease.
5. Prevent the introduction of exotic diseases or disease causing agents.
6. Protect public health and minimize disease risks to cultured and wild fish through judicious use of treatments.
7. Provide regulators with appropriate information.
8. Provide an outline of the obligations in National and European Fish Health Legislation.

The handbook represents the culmination of work from a number of individuals from private and government organisations, representing the Irish aquaculture industry. We are indebted to the staff of IFA Aquaculture, the Marine Institute, Department of Agriculture, Food and the Marine, Fish Vet Group Ireland, Global Trust Certification and to the finfish producers who were involved in the process of developing this handbook.

Initial development of the handbook was supported by the AquaPlan project (Grant-Aid Agreement No. PBA/AF/08/003), carried out under the Sea Change strategy with the support of the Marine Institute and the Marine Research Sub-programme of the National Development Plan 2007-2013, co-financed under the European Regional Development Fund.



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Chapter 1. Introduction

The aim of this handbook is to give precise guidelines to all personnel involved in salmonid aquaculture in Ireland and to provide a standard for best practice in the industry with fish health and welfare as the key objectives. This handbook should assist producers in establishing a sound framework which will protect animal health and promote fish welfare on Irish farms, as well as providing a platform for training for farm operators and their staff. The handbook is a live document and will be updated regularly to reflect best practice. It will incorporate new and developing technologies as well as providing information on any new disease issues which may emerge over time. It is envisaged that the handbook will assist operators in meeting their statutory obligations as fish producers whilst also outlining various elements of best practice which are non-legislative in nature.

The handbook specifically aims to:

1. Reduce the occurrence of disease in fish held within the culture facility.
2. Minimize the spread of disease to stocks within and outside the facility.
3. Maintain an environment that promotes the health of the fish.
4. Maintain an environment that reduces the susceptibility of fish to disease.
5. Prevent the introduction of exotic diseases or disease causing agents.
6. Protect public health and minimize disease risks to cultured and wild fish through judicious use of treatments.
7. Provide regulators with appropriate information.
8. Provide an outline of the obligations in National and European Fish Health Legislation.

The attitude and competence of farm staff are vital in determining whether high standards of fish welfare can be achieved. It is the responsibility of management to ensure that there is a **health and welfare** ethos among staff and that staff are suitably trained and able to recognise indicators of poor health and welfare at an early stage. Managers must ensure that all staff have access to a current version of this document and are familiar with its content.

Managing the health of fish requires a program to determine health status and a system of recording performance, mortality and disease. This data is essential for monitoring trends and the early detection of emerging diseases, thus allowing for early intervention and remedial action to minimize the impact of the problem.

An essential part of the overall fish health plan is a written *Veterinary Health Plan* (VHP) which must be in place for each farm. This document should be written in consultation with the farms designated fish veterinary surgeon and updated annually. This plan should take account of all fish diseases relevant to the farm and outline methods to detect and control them. The VHP must encompass the basic statutory requirements, as outlined in the national fish health legislation (see www.fishhealth.ie), but it should also go well beyond these.

Water quality and the conditions of the surrounding **environment** should be maintained as close to optimum as possible. This handbook outlines the water quality requirements essential for fish welfare and details the monitoring protocol needed to maintain optimum conditions. A detailed environmental monitoring plan should be in place for each farm.

Good **husbandry** is essential for producing healthy fish. This handbook will outline the best practices for handling, feeding and growing salmonid fish.

It is inevitable for any industry involving animals that at some stage medicinal intervention will be required. Medicines and chemicals used for disease control must be properly administered and monitored to protect the public, environment and fish. This requires adequate diagnostic support, safe storage, use and handling.

The spread of disease causing agents and disease impacts can be minimized within and between groups of fish, by managing disease outbreaks efficiently. A management plan should be implemented to ensure careful handling of dead fish, adequate hygiene and disinfection practices and restrictions put in place on fish movements. Best practice for **biosecurity**, waste management, bay management and fallowing are all covered in detail in the handbook. Identifying these risk factors is essential, if disease outbreaks are to be adequately controlled and optimum fish health and welfare are to be maintained.

The Code consists of the following sections:

- Chapter II: Fish Health & Welfare
- Chapter III: Environment
- Chapter IV: General Husbandry
- Chapter V: Biosecurity
- Annexes