

Hake

(*Merluccius merluccius*)

Quality Guide



Bord Iascaigh Mhara
Irish Sea Fisheries Board

Introduction

Optimal handling and storage practices at sea and ashore are essential elements in the management of fish quality and the achievement of maximum return on national and international markets.

Defining fish quality, however, is not easy. The process includes the understanding and assessment of a range of factors, many of which depend on market preferences such as: species, size, capture method, seasonal condition and freshness.

Freshness, describes the degree of spoilage a fish has undergone since capture and is an important indicator for consumers. Very importantly, and unlike many other quality attributes, this is an area within the management of the catch, over which the fishing industry exerts significant control.

Sensory assessment remains the most popular method of assessing freshness. This type of assessment uses smell, texture and visual appearance to determine the quality of fish. It is a particularly useful technique as it is low cost and requires nothing other than careful and exact training. It is a widespread and reliable assessment method and provides the foundation for the design and application of this guide.

Merluccius merluccius

European hake	– English
Colmóir	– Irish
Merluza europea	– Spanish
Merlu d'Europe	– French
Pescada	– Portuguese
Morszczuk	– Polish
абыкнвенная меряуза	– Russian

Hake is a relatively long, slender bodied fish with a large mouth. They are usually a uniform steel grey colour on the back, lighter on the sides and silvery white on the belly.



Excellent Quality



Excellent Quality Eye: clear, bright, bulging.

Good Quality



Good Quality Eye: beginning to cloud, dulling, slightly sunken.



Excellent Quality Gill: bright red, little or no mucus, seaweed odour.



Good Quality Gill: pale red, traces of clear mucus, neutral odour.



Excellent Quality Skin: bright, shiny, with good colours, mucus transparent.



Good Quality Skin: reduced brightness, less colourful, mucus slightly cloudy.

Good Quality

Excellent Quality

Gutting

Poor Quality

Poor Quality



Poor Quality Eye: dull, milky, sunken.



Poor Quality Gill: pale, turning brown, mucus cloudy, sour odour.



Poor Quality Skin: dull, faded, mucus milky.

Gutting



A small cut, approximately three inches (7.5cm) in length, is made in the belly.



This is a well gutted fish. The cut in the belly is small, and does not cut the throat.



This is a badly gutted fish. The throat has been cut (inset). Hake require a small straight cut in the belly and not through the throat.

Washing



Large fish can be washed individually, while smaller fish can be machine washed.



Gills need to be washed to prevent the build up of blood and debris.



This is a well washed hake. All traces of blood, liver and intestines have been removed from the body cavity.

Traditional Boxing & Icing



A layer of ice is placed in the bottom of the box.



Fish are placed gutted-side down, in neat rows. A covering of ice is used to separate each layer of fish. The protective plastic has been partially removed to reveal the layers of ice and fish.



Another layer of fish is placed in the box. Care is taken to prevent overfilling. The box is finished off with a layer of ice, which does not extend past the rim of the box.

Hygiene & Cleaning

In addition to correct handling, a high standard of hygiene and cleaning is essential to ensure production of a safe, high quality, seafood product.

- After every haul, the deck, hopper, boxes, gutting area, knives, oilskins, aprons and all other equipment, should be washed down with seawater to remove fish blood, scales, offal, dirt and any other fouling substances.
- At the end of every trip, the deck, fish hold, hoppers, boxes, gutting area, knives, oilskins, aprons and other equipment, should be washed down using a power hose and detergent to remove fish blood, scales, offal, dirt and any other fouling substances.



- A chlorine-based bleach should be used to thoroughly clean working areas and equipment, and inhibit any bacterial growth. To show the importance of this, sample swabs were taken from a hold of a boat where no bleach was used and from a hold of a boat where bleach was used. Under laboratory conditions bacterial growth was greater on the sample swab from the deck where no bleach was used. All residual bleach should be rinsed away with clean seawater.



- Detergents and sanitizing agents should be from the approved list issued by the Sea-Fisheries Protection Authority (SFPA) and should be used to the product specifications.

By-Product Utilisation

With growing interest in health products, coupled with the need to extract the maximum value from limited seafood resources, the importance of seafood by-product utilisation is growing.

Currently by-products (liver, guts, bones) from commercial fish species are simply discarded at sea, disposed of onshore or reduced to lower value fishmeal.

Ireland has recently focussed research attention in this area, which will lead to an increased demand for raw material from our seafood industry in the future.

The following are some of the valuable by-products that have been extracted from seafood:

- Phosphorus and calcium from fish bones has anti-inflammatory properties.
- Omega-3 oils from fish livers and skeletal frames can be cleaned and used for the production of fish oil capsules.
- Bioactive peptides isolated from fish are known to have powerful antioxidant properties, which can boost the immune system.
- Fish is a rich source of vitamins A, E, C and selenium, which can protect the body from the build-up of free radicals.
- Fish skin and bone are a valuable source of collagen and gelatine.

Acknowledgements

This guide was produced in support of the Irish Fishing Industry by Frances O'Dwyer (BIM) with assistance from Marianne Green (KFO), Michael Gallagher (BIM) and Conor Nolan (BIM).

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Funded by the Irish Government and part-financed by the European Union under the National Development Plan, 2000-2006.



FINANCIAL INSTRUMENT
FOR FISHERIES GUIDANCE



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ISBN 1-903412-19-6



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