

## Grain 8: Introduction to the quality of aquatic products

**Responsible: Professeur Catherine Mariojouis, AgroParisTech**

### Introduction

| Hello,

| We are going to talk about the quality of aquaculture and its products. When it comes to this topic, the first question to arise is: what is it? In fact, there are several types of qualities. In this case study relating to trout, you can distinguish two orange shutters. The right-hand side one relates to the trade of live animals, whereas the left-hand side one is about the trade of food products. The quality approach of both is completely different.

### Quality relating to animal health and adaptation to farming

| As you may know, producers along a production chain trade eggs as well as fish at different development stages. In this case, what matters is the animal health quality, *i.e.*, the status of these products regarding diseases that could be conveyed from one farm to another. This is very important and Domenico Caruso will present the topic. Of course, this translates into many animal health regulations, as also shown by Domenico Caruso. As regards to live animals, the farming quality, *i.e.* the adaptation of animals to farming, also needs to be mentioned. It largely depends on the genetics of the animal, thus the selection applied to it.

### Aquaculture food product quality

| Another extremely important area of quality is the trade of aquatic products destined to human consumption. In this case, we deal with the quality of an aquaculture product as a food product. This quality is not unique; on the contrary, it is multiple. Deperrois in 1987 mentioned six dimensions of quality for a food product:

| At the top are the well-known components:

- | • Firstly, the nutritional quality: we eat to feed ourselves.

- The hygienic quality/food safety: when eating, we don't want to get a foodborne disease so the product must have the adequate sanitary quality.
- And finally, the organoleptic quality that appeals to our senses, that is to say, the taste and of course, the smell.

All this, you should already know, but the components that are in the second part of the scheme are less obvious:

- The technological quality is the ability for a product to meet the needs of an industry. A fish fillet fit for smoking, for example.
- The quality of use: it is a quality targeted at the consumer for easy use. For example, a ready-to-cook dish with fish.
- The psychosocial quality, which implies that when we consume a food, it is not only for our physical and nutritional needs, but also to take into account a whole psychological and social universe surrounding the food.

### Food quality along the production chain

The third topic, extremely important is: how should the quality be considered along the production chain? At the farm level, the question arising is how the quality is produced. Do we actually control the quality development? This will depend on the farming conditions, which broadly include the feeding, the genetics of the livestock, and the environmental conditions that we manage to keep around the animals.

So if there is a quality development, the following question is: how will this quality be effectively preserved throughout the processing chain? This is very important, as it is not sufficient that a farm develops a good quality product, as the quality has to be maintained by all stakeholders handling it along the chain, by processing it in an appropriate manner. It is important to remember that the quality is a matter that deals with chains in which links are extremely important.

### Quality certification

Now, since a farm has condition to develop a specific quality product, then how:

1 / The producer will get a fair return for the quality level he produced?

2 / The final consumer will be able to identify that a product actually comes from a specific mode of production?

One way to do this is called quality certification, or quality labels, and this is something that developed very much in aquaculture. In the last fifteen years a profusion of quality signs and labels emerged, resulting from quality management

programs or certification programs. They deserve our attention because they are very important for producers as well as for the markets.

Thank you for your attention.