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Bermejo N.

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Implementation of a sign of superior quality for aquaculture products: The experience of "Label Rouge" sea bass in France

N. Bermejo
Consulting in "Production, Security and Quality" for sea and fresh water products
Les Esterets du Lac, 5 rue de Reyran, 83440 Montauroux, France

SUMMARY – European sea bass *Dicentrarchus labrax* aquaculture has been strongly increasing for the last ten years. This rapid expansion has lead to problems of superabundance and particularly to a fall in prices. Unlike France, several Mediterranean countries (Greece, etc.) have significant advantages for a competition based on mass production, such as climate, site availability or salaries. Moreover, the productivity run and the use of more and more fatty feeds have a direct influence on fish flesh quality. At the same time, since the recent problems with animal feed, consumers have become more sensitive to food safety, to the origin and production methods of what they eat. Facing this economic and social environment, the SNAMM, a group of Mediterranean French fish farmers belonging to the ICM Group, which currently represents a production of around 600 tons, are trying to reject a market based only on price level that pushes farms down. Indeed, when there is no product differentiation, consumers take them as equivalent and then, only price only makes the difference. SNAMM decided to react by adopting a differentiation strategy and by giving a "quality added value" in order to compete with their own advantages and to keep the industry profitable. This paper first presents the definition steps of the project, which are the main objectives, the reasons of choosing the Red Label sign, and the valorization strategy. The second part is dedicated to the field experience regarding the difficulties encountered and to the points which finally lead to success.

Key words: Sea bass, Red Label sign.

RESUME – *"Mise en place d'un distinctif de qualité supérieure pour les produits de l'aquaculture: l'expérience du bar "Label Rouge" en France". L'aquaculture du bar européen* Dicentrarchus labrax *a considérablement augmenté pendant les dix dernières années. Cette expansion rapide a donné lieu à des problèmes de surabondance et en particulier à une chute des prix. Contrairement à la France, plusieurs pays méditerranéens (Grèce, etc.) ont des avantages significatifs pour une compétition basée sur la production de masse, tels que le climat, la disponibilité de sites ou les salaires. En plus, la tendance de productivité et l'utilisation d'aliments de plus en plue gras ont une influence directe sur la qualité de la chair du poisson. En même temps, depuis les problèmes récents avec les aliments destinés aux animaux, les consommateurs sont devenus plus sensibles à la sécurité des aliments, à l'origine et aux méthodes de production de ce qu'ils mangent. Face à cet environnement économique et social, la SNAMM, un groupement d'aquaculteurs français méditerranéens appartenant au groupe ICM, qui représente actuellement une production d'environ 600 tonnes, tente de refuser un marché basé uniquement sur le niveau de prix préjudiciable aux aquaculteurs. En fait, en l'absence de différenciation des produits, les consommateurs les considèrent équivalents et c'est alors uniquement le prix qui marque la différence. La SNAMM a décidé de réagir en adoptant une stratégie de différenciation et en apportant une "valeur ajoutée de qualité" afin d'être concurrentiels selon leurs propres avantages et de permettre une rentabilité à l'industrie. Cet article présente d'abord les étapes de définition du projet, qui sont les objectifs principaux, les raisons du choix du Label Rouge et la stratégie de valorisation. La deuxième partie est consacrée à l'expérience de terrain concernant les difficultés rencontrées et les éléments qui mènent finalement à la réussite.*

Mots-clés : *Bar, Label Rouge.*

The definition steps of the project

What are the objectives?

Three types of objectives:

(i) *Commercial*: answering and anticipating consumer's demand in terms of reliability, ecology,

animal welfare, health, alimentary safety and taste. All this, in order to keep or to win market shares and to enhance sale prices, or to stabilize them.

(ii) *Channel*: stimulating and involving the responsibility all along the channel, thinking the actions in a channel perspective which goes from consumer to production (and not in the reverse order). In practice, that means associating the key channel actors with the SNAMM producers: feed makers in a first time, fish buyers in a second one.

(iii) *Technical*: on one hand, normalizing quality in farming operations and reducing non-quality costs by adopting an improvement process, Quality Assurance System. On the other hand, ensuring traceability.

The choice of the Red Label sign

First, was eliminated horizontal differentiation, because of the bad sea bass ratio "fillet % on total weight", and of necessary associated investments.

Vertical differentiation refers to product quality. To comply with the commercial objectives, the sign should be directly and easily recognized by consumers and should present serious guarantees in connection with the quality demand. These first considerations make insufficient firm certification like ISO 9000 norms, or collective mark, in terms of quality demand, and make them inadapted from the recognition point of view (mainly because of the small production scale for the collective mark).

On the contrary, *official certification signs* meet all the above-defined commercial requirements: (i)
a direct recognition by consumers due to the specific tag placed on each product; (ii) the signs notoriety, which profits by all others channels publicity; and (iii) the reliability of an official sign which brings true guarantees ratified by State and controlled by an independent and agreed certifier organism.

At the beginning of the project, only two official signs could be applied to sea bass farming: the Product Conformity Certification (CCP), and the Red Label (specifications for Organic Farming were in preparation and AOC is not adapted). The Red Label sign is the only one to insure a superior quality of the product and thus seemed well adapted to sea bass reputation. It is also the most popular: 82% of the consumers recognize it. Moreover, some scientific basis on sea bass farming is existing, that could be used as a basis to valorize the product in terms of sensorial quality.

Taking these facts into account, the SNAMM producers decided to issue a "Red Label file" to be deposited to the CNLC (National Commission of Label and Certification).

The valorization strategy

Consumer's demand has been considered as a priority when defining the valorization potential of the product. The valorization strategy is at two levels:

(i) Level 1: an extreme differentiation, by objective qualitative characteristics and by an imaginary added value.
(ii) Level 2: reliability by offering guarantees based on periodical controls of System and products by an independent agreed certifier organism.

The field experience

The realization steps of the project

Preparation

First, producers created the SNAMM Association, named a Quality Coordinator (QC), and defined a

piloting staff for the project which included producers (nursery and sea farms) and traders, to cover all aspects. The QC was in charge of the planning, of the "Red Label file" issuing, of the quality organization, of the training, and of the relations between producers and others operators, (certifier organism, CNLC, laboratories or feed makers). The piloting staff periodically validated the decisions and the choices.

An action plan was established covering to the three following phases.

Phase 1 - Feasibility study

The feasibility study is the key document for the "Red Label file" acceptance and official confirmation. First, it is the synthesis of all available scientific data on fish and sea bass quality in relation with production process. It is also the connection of these elements with the defined valorization characteristics. Secondly, it has to demonstrate the economical and technical viability of the project; that is showing that the chosen certified characteristics and associated production methods can apply to the social-economical context where standard products are sold.

Figure 1 presents the quality characteristics retained, according to the feasibility study and the defined valorization strategy.

VALORIZATION STRATEGY AND MATERIAL	
LEVEL ONE: DIFFERENTIATION **Objective qualitative characteristics**	
* **Alimentary safety:** respect of official rules, traceability from nursery to consumer, tagged fishes * **Process after fishing:** slaughtering by thermal shock, starting of cold chain from slaughtering, delay of dispatching, sale limit date of 7 days. * **Service:** characteristics regularity, minimum weight of 300g, sizing	* **Farming process:** (1) rearing system, in sea with respect of natural growth cycles; (2) controlled alimentation with poor fat, a minimum rate for fish products and quality criterions for fish meal and oil used * **Sensory characteristics** Wild fishing-line sea bass is the reference - a sensory test, once a year, compares Red Label fishes with standard aquaculture sea bass and wild fishing-line ones, - fat limits in the fillet keep fishes in the middle-fat category: under 6% rate from spring to autumn and under 5% in winter - respect of the minimum official size of fishing sea bass: 25 cm *Hand-sorting of each fish on visual aspect: normality and body integrity.
Characteristics of image	
* Alimentation without products of terrestrial animals * Respect of animal welfare: low density, slaughtering method	* **"Reared in open sea, with respect of natural cycles"** Consumer's information
LEVEL TWO: RELIABILITY BY GUARANTEES	
* Internal control program with periodical analyses	* External control program of the System and of the products by a state agreed certifier organism

Fig. 1. Quality characteristics retained.

Phase 2 - The "Red Label File"

The "Red Label file" includes by 4 documents: the SNAMM group status, the specifications book, the analyses file and a synthesis card. Issuing of the "Red Label file" took three months.

The specifications book and the analyses file are the major documents as they certify sea bass conformity to the defined characteristics. They show the reality of the superior quality, and certify that prevention and control measures have well been performed in order to meet conformity and reliability requirements.

The specifications book has been build up according to HACCP method: (i) definition of the certified characteristics; (ii) analyse of the non-conformity risks, for each characteristic and production step; and (iii) identification of prevention and control points.

Once the "Red Label file" was completed, agreed by Bureau Veritas Quality International (certifier organism) and deposited to the CNLC for examination, each farm was trained on the Assurance Quality System (phase 3).

Phase 3 - Organization of a quality assurance system

The objective was to prove that each farm was complying with the "Red Label specifications book" by the mean of a Quality Assurance System organization based on International ISO 9000 norms. The system includes the issuing of a Quality Manual with an appropriate documentary system. The implementation in each site, and the organization of an internal registration system.

Previously, to make all this as easy as possible, a general Quality Manual pattern by activity (nursery, sea farm, packaging-sale) has been rapidly written, according to the "Red Label specifications book" requirements. It describes the minimum procedures and registration system to be used. The fieldwork consisted then to adapt it unit by unit, and to train the whole staff with the help of the production managers (who had been promoted as Quality Managers).

The favourable points and difficulties encountered

They are presented in Fig. 2.

Conclusions

The project started on august 97, the "Label Rouge file" deposited at the CNLC on December of the same year and officially confirmed on April 99. In the meantime, the SNAMM and each farm were prepared to the "Quality Assurance System", and certified by the Bureau Veritas Quality International after the first control in June 99. The first sales should take place in autumn, and it is expected 20% increase in sale price (ex-farm).

To conclude, certification seems well adapted to aquaculture activities, due to the quality prevention possibilities all channel long. Moreover, the horizontal hierarchy by function, the continuous internal training, and the fact to give the whole staff a proud and stimulating feeling authorize to say that it appears as an efficient management concept. All farmers know how much good human factors are profitable when working on the living.

PREPARATION PHASE
Favourable points

* Dynamics came from producers. In particular, from one farm, THEOULE AQUACULTURE, which initiated in 1991, within the framework of a CIFRE thesis, research and nutrition trials related to sea bass quality.
* The Quality Coordinator came from sea bass production. He has a good knowledge and experience of farming process and field people. This was decisive in joining all staffs and in starting the project
* From nursery to packaging, all sites involved pertain to the same financial group
* A feed maker, LE GOUESSANT, immediately joined the project .
* The action plan was realistic and adapted to farms quality knowledge in process and people formation

Difficulties

* No plan in the communication and commercial fields. * Dynamiques was only initiated in summer 99

PHASE 1: FEASIBILITY STUDY
Favourable Points

* Some reliable scientific basis was available to valorize the product in terms of sensorial quality. The main documents were:
  - IFREMER study about identification of sea bass sensory descriptors
  - INRA results about influence of alimentation or slaughtering method on fish quality
  - private trials on the influence of rearing system and alimentation on sea bass quality
* No need of material investment
* Red Label quality and associated specifications had been already tested, for more than one year, from technical and economical points of view. No major changes were brought in production strategy - rearing system (structure and fish density), feeds composition, or process after fishing
* The SNAMM and the OFIMER concluded a 3 years financing agreement for the project

Difficulties

* Lack of scientific basis on genetic selection related to quality
* Lack of public research on sea bass quality in relation with nutrition

PHASE 2: REDACTION AND ACCEPTANCE OF THE RED LABEL FILE
Favourable Points

* Application of the HACCP method for the "Red Label specifications book" issuing, with special care to feed control and traceability
* Wild fishing-line sea bass was taken as the quality reference for sensory test, fillet fat limits and official minimum size
* A very full feasibility study and the certifier organism credibility (moreover with a new channel) gave confidence to the CNLC

Difficulties

* Non-gutted fishes
* Experts advices or propositions, concerning gutting and fat limits in feed, were disconnected from economical and practical reality
* Fishermen exerted a very strong pressure to make the project fail
* The step was not supported by the SFAM - the national marine aquaculture federation
* The CNLC created an internal working group to study the file, thus leading to a delay

PHASE 3: ORGANIZATION OF A QUALITY ASSURANCE SYSTEM
Favourable points

* The C.Q field experience made relationship easier
* Staff proud and stimulating feeling were actual
* Sites could run with the system during the 15 months of file examination by the CNLC !
* Working sanitary norms already complied with official standards
* People were continuously trained and controlled by the C.Q
* The Quality Assurance System is based on international ISO 9000 norms

Fig. 2. Favourable points and difficulties encountered.