THE MARKET FOR FARMED RED PORGY IN FRANCE, GREECE, ITALY AND SPAIN

ITALY

A study made within the COLORED project (Contract Q5RS-31629)
"Environmental, nutritional, and nueroendocrine regulation of skin colouration in the Red porgy (Pagrus pagrus) towards the development of natural hue in culture populations"

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Project Summary

<table>
<tr><td colspan="4">Title of the project

ENVIRONMENTAL, NUTRITIONAL AND NEUROENDOCRINE REGULATION OF SKIN COLORATION IN THE RED PORGY (PAGRUS PAGRUS), TOWARDS THE DEVELOPMENT OF NATURAL HUE IN CULTURED POPULATIONS</td></tr>
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ITALY

1. FRESH FISH IN ITALY

1.1 IMPORTANCE OF FRESH FISH

It is estimated that a total of 150 000 tonnes of fresh sea-fish was consumed in Italy in 2002.

The fresh fish counter is not traditional in modern retailing, however almost all large stores now have one. PAM was the first modern retailer which introduced fish counters in its stores on a national level. Fish counters were introduced 14 years ago by COOP ITALIA and now all its hypermarkets and big sized stores have one. CARREFOUR has fish counters in 90% of its stores.

Fresh fish does not bring a good margin to the retail chains because of labour cost of selling and preparation, but it is **attractive for them in terms of customer loyalty and store image** ("freshness", healthy).

Retail chains are not always able to determine quantitatively how important fish is for their chain. This is the case, for example, of the cooperative retail chain CONAD[1] whose fish is managed by its various regional co-operatives (in terms of range, suppliers and purchases). The fish sold is characterised by strong local differences, hence major differences between the various co-operatives. Only the products sold under *Percorso Qualità Conad* (CONAD Quality Chain) is managed centrally. The centrally managed range is limited to trout, sea bass and sea bream.

There is a concurrent trend towards frozen fish in the food service sector because it is convenient and easy to manage.

1.2 THE ROLE OF MEDITERRANEAN FISH

Mediterranean fish account for an estimated 40 to 80% of the overall sales in modern retailing in Italy, depending on the retail chain. In the case of the cash and carry chain METRO (which supplies restaurants and small stores), Mediterranean fish only represent 20%, because it carries a larger range than modern retailers.

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[1] Conad is a group of independently owned stores that have grouped together as regional cooperatives and a national cooperative for buying, and for developing their stores' image.

The main species are the so-called Blue Fish ("pesce azzurro"- an imprecise generic term in Italian for all common fish whose backs are bluish in colour and with silvery bellies e.g. sardines, sprats, swordfish, tuna...), and sea bream and sea bass which are less and less found wild, but are increasingly farmed.

Mediterranean fish sold in modern retail comes almost all from Greece and is mostly farmed.

The consumer does not reason in terms of geographical origins, although this could change in the future with the new rules on origin labelling. Only consumers who lives along the coast are interested by the origin, otherwise what counts is only whether the fish is:

– captured rather than farmed, as this is perceived to make a difference in quality
– fresh or not.

1.21 Consumer Trends

Mediterranean fish has an excellent image with the Italian consumer.

However, the market is slightly declining because of the rise in prices (along with the introduction of EURO). Moreover, **the rise in farmed fish does not compensate the loss in wild fish**.

1.22 Consumer Profile

There is no specific profile for the consumer of Mediterranean fish. It depends mostly on the fish and the region, given the strong local traditions in fish consumption. It is also difficult to determine the consumer profile as each modern retailing chain has its own customer target, also the size of the store influences the consumer profile.

What can be said is that the fish consumer tend to be relatively older, since she must know how to cook it, which is less and less the case with younger consumers.

The frequency of consumption is not known by the various operators GIRA interviewed. According to some sources, Italian consumers eat fish once every two weeks, other say twice a week.

1.23 Ways of cooking fish in Italy

There is a strong cooking culture in Italy and many ways of cooking fish: grilled, baked, fried …

The way of cooking also depends on the season: for instance, fish is essentially fried in summer.

1.3 FARMED FISH IN ITALY

The price of farmed fish is much cheaper than wild fish (can be twice as cheap), which explains the rise in consumption, even if the **consumer acknowledges the better quality of the wild species**.

The species which are most successful among farmed fish are those which are already well-known as wild fish by the consumer. Some of them – such as trout - have gained importance in the Italian food culture.

Publicity and communication to consumers (generally in-store) tends to stress the fact that fish farmers try to reproduce the natural conditions of the wild. So far there is no government/interprofessional communication.

There are various retailer brands which cover prepacked farmed fish (*Carrefour, Auchan, Esselunga, Coop*). This is seen effectively as a guarantee, even a certification, by the consumer. As a matter of fact, the consumer sometimes mistrusts the farmer and wonders if the fish has been properly fed.

But the consumer is increasingly aware that there are more controls over farmed fish than on wild fish, moreover she is aware of the increasing quality of farmed fish (in particular in terms of fat content).

Consistent, well controlled supplies are good purchase motivations for farmed fish for modern retailers.

Restaurants have become used to farmed fish, unlike in the past when they were ashamed of serving farmed fish. They tend to buy farmed fish on a regular basis and wild fish when it is cheap, even though they still prefer wild fish. They accept farmed fish especially if it effectively guarantied by a retailers' own label.

1.4 SUCCESS CRITERIA

Quality and price are the main criteria of success for a given fish species. It is also important to take account of the **fish's shape and colour, as these are reckoned to account for half the success of a sale**.

Recent new product introductions consist mostly in:

– farmed versions of existing fish

– further processed fish (e.g. fillets)

– importing species which were not known in Italy, from Vietnam or Thailand for instance.

It is difficult to introduce new species as interviewees perceive that there is a limit to what nature can provide. Moreover hybrid species are unpopular with consumers.

1.41 PRICE FORMATION

Prices are easier to determine for farmed fish, which can be considered as a regular, industrial product, than for wild fish, whose price is highly variable. To determine the optimal price it is necessary to determine whether the product is farmed or not, and what other fish (or substitute product) it is competing with.

It all depends on the supplier price, which is strongly related to quality.

1.42 DEGREE OF BUYER RECOGNITION AND KNOWLEDGE

Table 1 indicates the answers given by the interviewees when having to guess which fish were presented on the 7 pictures. Names in italics indicate the wrong names given by the interviewees.

Photo n°	**Fish names**	**Retailers' answers**				**Wholesalers' answers**	
		Retailer A	**Retailer B**	**Retailer C**	**Retailer D**	**Wholesaler A**	**Wholesaler B**
1	Morocco dentex	*Red porgy*	*Pandora*	*Pandora*	Does not know	Dentex	*Pray*
2	Blue-spotted seabream	Blue-spotted seabream	Does not know	*Pray*	Does not know	Blue-spotted seabream	Blue-spotted seabream
3	Pink dentex	*Red porgy*	Does not know	*Red porgy*	Does not know	Does not know	Blue-spotted seabream
4	Gilt-head seabream	Gilt-head seabream	Gilt-head seabream	Gilt-head seabream	Gilt-head seabream	Gilt-head seabream	Gilt-head seabream
5	Mediterranean red porgy	*Saddled sea-bream*	*Striped sea bream*	*Sea bream redbanded*	Red porgy	Red porgy	*Pandora*
6	Farmed porgy	Does not know	*Seabream white*	*Seabream*	*Seabream*	*Seabream*	*Seabream*
7	European seabass	*Trout*	Seabass	Seabass	Seabass	Seabass	Seabass

Table 2 translates these answers into figures, in order to draw conclusions from these answers.

Photo n°	Fish names	Retailers' marks				Wholesalers' marks		Average
		Retailer A	Retailer B	Retailer C	Retailer D	Wholesaler A	Wholesaler B	
1	Morocco dentex	0	0	0	0	1	0	**0.17**
2	Blue-spotted seabream	1	0	0	0	1	1	**0.50**
3	Pink dentex	0	0	0	0	0	0	**0**
4	Gilt-head seabream	1	1	1	1	1	1	**1**
5	Mediterranean red porgy	0	0	0	1	1	0	**0.33**
6	Farmed porgy	0	0	0	0	0	0	**0**
7	European seabass	0	1	1	1	1	1	**0.83**
Average		**0.29**	**0.29**	**0.29**	**0.43**	**0.71**	**0.43**	**0.40**

0: wrong answer or no answer at all
1: right answer

From these two tables we can conclude that:

- only gilt-head sea bream has been recognized unanimously
- **none of the interviewees recognized farmed red-porgy**. This fish looks like a strangely shaped sea-bream, or a cross-bred fish. It definitely does not look like its wild counterpart
- wild red porgy and blue-spotted sea-bream are more recognizable to the interviewees, especially the sea bream
- dentex is often mistaken for red porgy.

Fish buyers **make many mistakes** when asked to recognize fish on pictures.

One operator remembered that Greek farmers had tried to sell a fish similar to the farmed porgy a few years ago, but it failed. There are currently some experiments in Italy with farmed porgy and **the results are better than the one presented on the picture in terms of colours**.

An operator mentioned its big belly which might be caused by fat, which reduces the length of its shelf-life.

2. RED PORGY SALES

2.1 SALES TRENDS

Although most Italian chains sell wild porgy, volumes are too small to determine significant sales trends. CARREFOUR does not have a constant presence of porgy.

It seems that red porgy is **mostly destined to the catering market when it is of larger size**. One major catering wholesaler sells large (2kg minimum) porgies from New Zealand. It is a fish which has some advantages because it is big. It is mostly destined to buffet consumption as it can be shown whole. That wholesaler sells 20 tonnes of that particularly large fish per month.

The market trends in catering are hard to define when talking about smaller sized red porgy:

– the catering wholesaler is obliged to sell smaller (wild) red porgies by its suppliers who have plenty and thus sell whole containers of fish. However it is hard to sell it even at a low price

– METRO (cash & carry) sells 3 to 4 tonnes of porgy a year, which is considered as good.

2.2 ORIGINS OF THE FISH

Some operators mentioned that Mediterranean red porgy have practically disappeared. Red porgies are mostly from Africa, in particular Senegal, Morocco and Mauritania. There is also some supply from Brazil and Oman (because of its lower prices) as well as European countries (Spain and Portugal).

All retail chains are supplied through wholesalers because of the small volumes required.

2.3 SIZE AND PRICE

Size

There is a wide range of red porgy sizes available on the Italian market. Sizes vary from 150g up to 600g, however it can go up 2kg

Selling Prices

Prices depend on the size and the geographical origin of the fish[2]. There is a wide range of wild red porgy prices, as shown below:

– EUR 20/kg from Mediterranean origin (wholesale price)

– EUR 8 to 9/kg from Oman

[2] In case of co-operative retailers (COOP and CONAD), where the stores are freer to fix their selling prices, selling price vary from one store to another.

– EUR 7.5/kg from Senegal

– EUR 4.60/kg from Brazil

– EUR 4-5/kg from New Zealand (2kg minimum) (wholesale price)

Mediterranean porgy is more expensive but also more appreciated, while the Atlantic one is more consistent in its supplies and also cheaper.

Small size wild red porgies ("pagellino") are very cheap (EUR 2/kg) because production is higher than demand.

2.4 STRENGTHS AND WEAKNESSES OF WILD RED PORGY

Strengths	Weaknesses
Possibility of valorising its big size (nice appearance)	Not widely appreciated (too many bones, dry meat, strange taste) Unknown to the general consumer Inconsistent supplies Long distances (possible lack of freshness, high transport costs, import duties) No market for the small size porgy Expensive prices

Wild red porgy is mostly characterised by weaknesses:

– no buyer interviewed appreciated the taste and texture of red porgy

– there is a serious lack of information to the consumer (it is not known to the consumer of the north of Italy - slightly more in the south)

– the fact of it being a wild fish makes it difficult to offer on an every day basis, and thus to create a consumption habit among Italian consumers

– long distances create logistical problems and add to the price.

As red porgies are expensive at wholesale level, restaurants mostly offer big ones, as the big size justifies the high price - as an added value.

2.5 Competing Fish

The Italian consumer does not go to the store with a predetermined idea of which fish she is going to buy. She chooses depending on the price and the offer available. For this reason, it is difficult to consider that red porgy competes with any particular type of fish.

It can perhaps be considered that red porgy is in direct competition with species such as sea bream and sea bass as these two are cooked and eaten in a similar way.

3. Farmed Red Porgy

3.1 Degree of knowledge of the farmed fish

Buyers are generally aware of the existence of farmed red porgy, even if they might not have been offered any yet. They tend to be aware of farmed porgy from Greece.

Coop Italia indicated that it could develop farmed porgy under its own brand in order to develop a new fish type. This retailer is currently following red porgy farming developments closely. This would remove the problem of logistics, as supplies would be consistent during the year.

Carrefour indicated it will sell some in the near future. It does not sell any yet because it considers that it is too expensive for the quality reached. It is **mainly the head of the fish department in the store itself who is unenthusiastic**.

Some Greek producers are currently trying to sell farmed porgy in Italy and visit the various retail and wholesale buyers.

3.2 Strengths and Weaknesses

It is considered that the quality of farmed fish is lower than that of the wild fish, which is healthier and more natural. However farmed fish possesses advantages such as supply consistency, ease of transport and lower prices.

3.3 Differences in Colour

The difference in colour is not very important as the Italian consumer does not know red porgy anyway.

4. CONDITIONS FOR A FARMED RED PORGY OFFER

4.1 NAME

Although it is illegal to change the name of a product, it is important to note that a fish's name may change according to the region (importance of dialects in Italy).

4.2 OPTIMAL SIZE AND COLOUR

Optimal Size

There is no common opinion about the optimal size for red porgy in modern retailing. It varies from 250g to 500g. In the catering area, it seems that red porgy have more opportunities if bigger than 1kg, as they can be presented whole for buffets.

It is difficult to sell fresh fillets as they have a very short shelf-life (they loose their characteristics in 48 hours). Whole fish sells better.

Optimal Colour

As the Italian consumer is not familiar with red porgy, the colour is not very important. However some operators suggested that the colour should be similar to that of the Atlantic porgy.

Some operators declared that its red colour is the only real advantage of red porgy, as it **brings some colour onto the fish counter**.

4.3 OPTIMAL SUPPLIER

For the moment there is no red porgy farming in Italy, however there are some experiments in Puglia and Sicily.

The nationality of the farm generally does not matter, as farmed sea bream and sea bass are Greek already. But for the consumer cooperative COOP ITALIA, whose philosophy is to encourage national production, it is important for the farm to be Italian.

4.4 OPTIMAL COMMUNICATION AND PUBLICITY

It is important to make red porgy known to the Italian consumer. Then what counts are to stress its freshness and the fact that it is not fat. Once this has been achieved, the different retail chains can make promotions to encourage sales.

The fact that the farmed fish is different from the wild one is not important, as the Italian consumer hardly knows red porgy anyway.

4.5 Optimal Price

There was no precise idea among interviewees about the price farmed porgy could be sold at.

Sea bream and sea bass are already sold for a very low price (EUR 3.50/kg, farmed) while it is a good quality fish that clients like, so some operators suggested that a **farmed porgy should be sold for less than EUR 2/kg** (unless quality is very good and communication is made).

The price depends on the size, the quality and the costs of production.

4.6 Potential Consumer

The potential consumer for farmed porgy would be somebody who looks for constant quality, guarantees, and consistence in supplies.

4.7 Volumes Expected

Despite the difficulty of estimating the potential for this market, potential volumes could be estimated at 4 500 tonnes (if one sea bream consumer in 10 were to choose red porgy). What counts is **supply consistency, freshness, correct price and good taste** (plus the help of the salesman) for the consumer to buy it regularly.

Potential is different between food service and retailing. In food service, the customer looks for what is familiar, while the consumer is more curious in modern retailing. Marr, which has difficulty selling its small size porgies, sees little opportunity for farmed porgies.

It will take time for the Italian consumer to appreciate farmed red porgy anyway. Moreover, farmed porgy will meet the competition of wild Atlantic whose supplies are consistent and relatively cheap.

5. Conclusion

The fish counter is seen as interesting in terms of customer loyalty and retailer image-building in Italy. There is a rise in farmed fish for structural reasons, even if the Italian consumer still prefers the wild fish. Farmed fish are accepted because of their cheap prices and the guarantee brought by retailers' private labels.

The visual aspect of the fish is important in modern retailing, since the Italian consumer does not know what she is looking for before she enters the store.

Most buyers whom GIRA interviewed already sell wild red porgy, even if in small quantities, from Africa and sometimes from South America (Brazil). **It seems that the logistical problems and the lack of consumer knowledge are the main factors for the current limited amount of red porgy sold**. Farmed species have the advantage of being cheap and easier to manage than wild fish.

However, before farmed red porgy is introduced, it is absolutely necessary to:

- develop a **major communication campaign** to make it known to the consumer, but also the buyer and the head of departments in retailers and wholesalers, as farmed porgy has already got a bad reputation in some circles. This would be all the more useful as the salesman strongly influences the consumer's choice in the store
- **improve the appearance** of the farmed porgy shown in picture, as this does not look good to the operators we interviewed (also too fat)
- **make it redder,** as the colour is not crucial, but it would be a selling advantage
- make sure it offers **good value for money**
- **valorise its large size** in catering as an added value.