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## Mediterranean aquaculture industry trends in production, markets & marketing

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**SUMMARY** - The finfish mariculture industry is comprised of approx. 490 production units operating in about 11 countries of the Mediterranean basin. This new aquaculture industry followed an amazing development over the last ten years and the present (1994) level of production (29.000 t) is forecasted to reach 40.000 tons by 1996. At the forefront of these impressive developments is Greece with a market share of 42%. Market size fish prices decreased by 53%, over the last 6 year period. Therefore, the profit margin is on a decline. Demand is expected to extend more severe pressure for lower prices with direct effect on the profitability of the enterprises. The market prospects, at least in the short-term, are definitely better in Southern European States (Greece, Italy, France and Spain). Demand in the North is presently limited to specific ethnic groups, mainly because Mediterranean species are not known to the average consumer. Since the market is becoming more and more competitive, the consumers and the trade customers more demanding in terms of product quality, consistency and reliability of supplies, it is inevitable that for future growth more sophisticated methods of marketing should be adopted. During the last 3-5 years we are watching the invasion of the supermarkets to the fresh fish trade. They are increasing year after year their market share all across Europe, while the traditional channels (mainly fish mongers) are losing the pace. Those powerful supermarket chains will squeeze Mediterranean aquaculture producers for lower prices.

**Key words:** Finfish, Greece, marketing, prices, production.

**RESUME** - *"Tendances de l'industrie aquacole méditerranéenne en matière de production, marchés et commercialisation". La production industrielle des poissons marins comprend approximativement 490 unités de production lesquelles sont réparties dans 11 pays du Bassin Méditerranéen. La nouvelle industrie aquacole a suivi un développement énorme les dernières dix années et le niveau (29.000 tn) de la production actuelle (1994) semble valoir monter à 40.000 tn en 1996. A la tête de ce développement impressionnant se trouve la Grèce avec un pourcentage de 42% du marché total. Durant la période des derniers 6 ans les prix du produit final ont été réduits de 53%. Donc la marge est en déclin. Du côté du marché, puisque ce marché devient de plus en plus compétitif, les consommateurs et les clients marchands vont être plus exigeants en terme de qualité du produit, de stabilité et de fiabilité des fournisseurs. Il est inévitable que les méthodes de marketing les plus sophistiquées*

*soient adaptées dans le futur proche. Les perspectives du marché, même pour l'avenir proche sont définitivement meilleures pour les pays de l'Europe du Sud (GRECE, ITALIE, FRANCE, ESPAGNE). La demande dans les pays du Nord est pour le moment limitée au sein des groupes ethniques spécifiques. Notamment, parce que les espèces méditerranéennes ne sont pas connues par le consommateur moyen. Un effort de pénétration dans le secteur de vente du poisson frais au Grandes Surfaces a été tenté les dernières 3-5 années. De cette façon le pourcentage de vente augmente durant ces années mais aux dépens des méthodes de vente traditionnelles (notamment des détaillants). Ces puissants réseaux des Grandes Surfaces vont faire pression sur l'aquaculture méditerranéenne afin d'obtenir des prix réduits.*

**Mots-clés :** Poissons marins, Grèce, marketing, méditerranéen, prix, production.

## I. INTRODUCTION

As many other agro industries, Mediterranean finfish mariculture developed in relation with technoeconomic and market environment, which explain the present status of this industry and its possible future evolution.

Today the finfish mariculture is taking place in many countries of the Mediterranean basin: Portugal, Spain, France, Italy, Greece, Turkey, Cyprus, Malta, Tunisia, Morocco and Croatia.

## II. PRODUCTION

### 1. Methods

The data presented in this chapter have been obtained by the producers associations of each country. In case that such association was inexistent we have sourced data from reliable local contacts.

### 2. Results and Discussion

The Mediterranean aquaculture production is characterized by the dominance of 2 main species - sea bass and sea bream, which represent 48% and 50% of total production and by about 10 other species, which all represent only 2% of the total production.

The Mediterranean finfish mariculture industry is presently comprised of approx. 491 production units, out of which 60 enterprises are integrated, with their own fry production (*Figure 1*).

Intensive rearing of seabass and seabream in the Mediterranean increased its output by approximately 5 times over the last 5 years, with production output around 29.000 tons in 1994 (Table 1). Our forecast for 1996 is close to 40.000 tons.

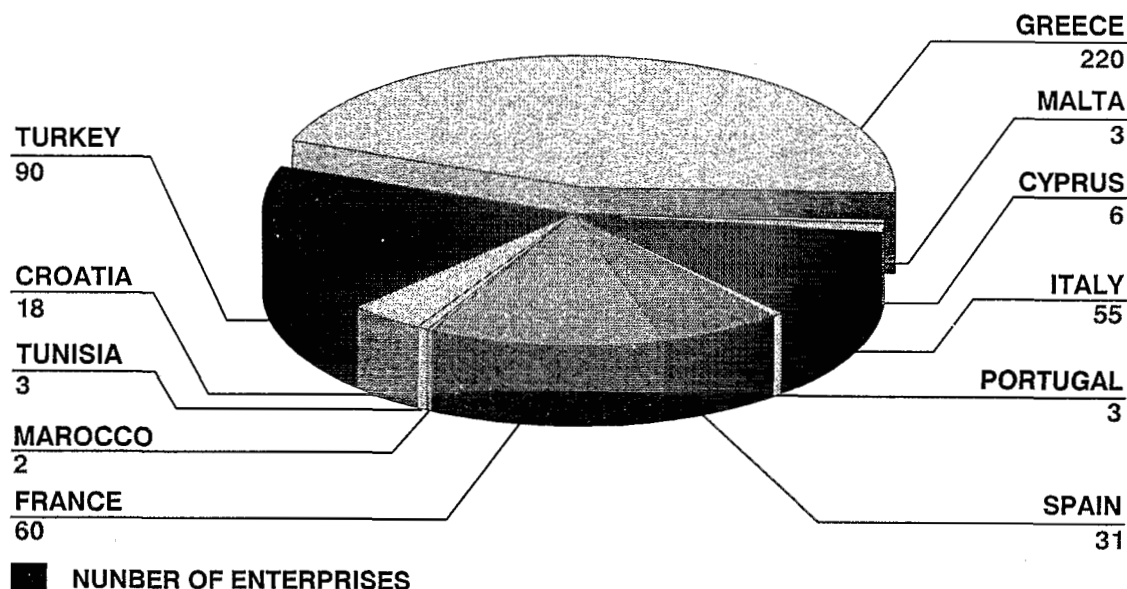


Fig.1 Seabass & seabream industry spread in the Mediterranean.

Table 1. Seabass / seabream production in the Mediterranean.

IN TONS	1990	1991	1992	1993	1994
GREECE	1.600	2.500	6.000	8.500	12.000
SPAIN	600	1.200	2.000	2600	3.200
ITALY	1.900	2.500	2.900	3.400	4.000
FRANCE	380	600	1.200	1.400	2.400
PORTUGAL	100	300	380	500	700
TOTAL E.U.	4.580	7.100	12.480	16.400	22.300
TUNISIA	330	450	500	650	700
TURKEY	180	250	1.200	1.500	2.000
MAROCCO	80	200	300	400	650
CYPRUS	50	60	70	220	550
CROATIA	400	400	-	300	1.200
MALTA	-	-	-	300	1.100
OTHER	-	-	100	100	100
TOTAL MEDITERRANEAN	5.620	8.460	14.650	19.870	28.600

Production of fry was equally impressive in performance, increasing at an annual rate of approx. 25% during the period 1991-1994 that reached the production level of 165 mill. fry in 1994 from all Mediterranean countries (Table 2).

At the forefront of this impressive development is Greece. In the last 5 years the Greek production of seabass and seabream increased by 8 times (Figure 2).

Table 2. Seabass / seabream fry production in the Mediterranean.

IN MILL.	1990	1991	1992	1993	1994
GREECE	14	23	37	60	70
SPAIN	13	17	18	23	28
ITALY	9	11	15	23	20
FRANCE	9	12	15	16	18
PORTUGAL	-	-	3	3	4
TOTAL E.U.	45	63	88	125	140
TUNISIA	3	3	3	4	4
TURKEY	2	2	2	3	5
MAROCOCO	-	1	2	2	2
CYPRUS	6	6	6	6	9
CROATIA	-	-	-	-	5
TOTAL MEDITERRANEAN	56	75	101	140	165

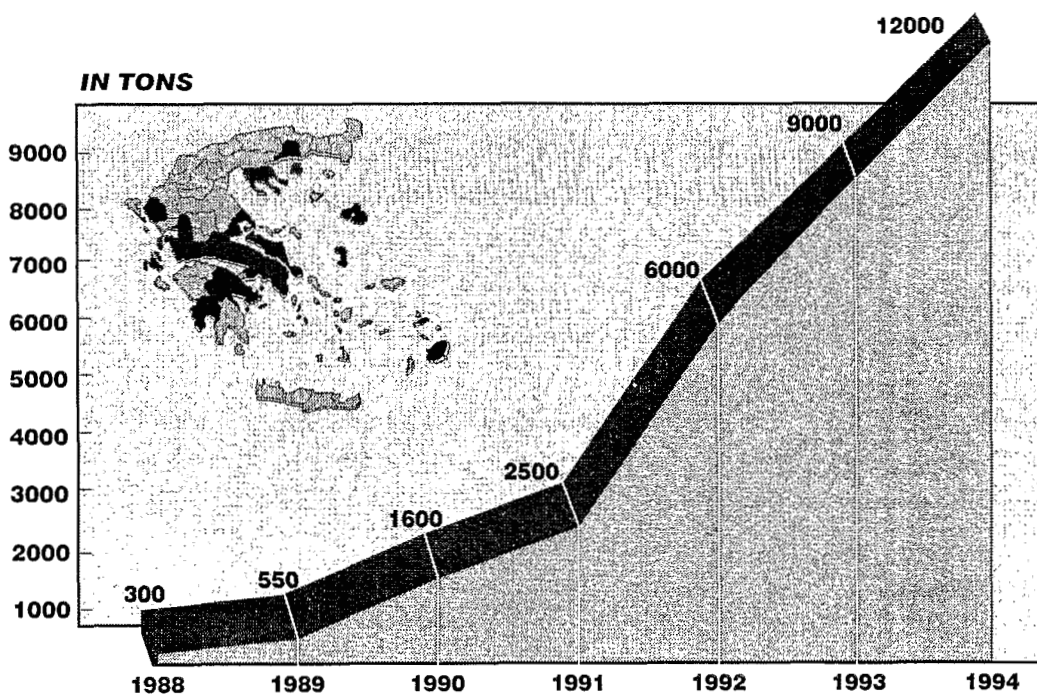


Fig. 2. Total seabream & seabass production in Greece.

While until 1988 the Greek sector's development was almost exclusively dependent on imports of fry, today 18 hatcheries are in operation, with consolidated know - how, attributing to the self-sufficiency of the fry domestic supply (Figure 3).

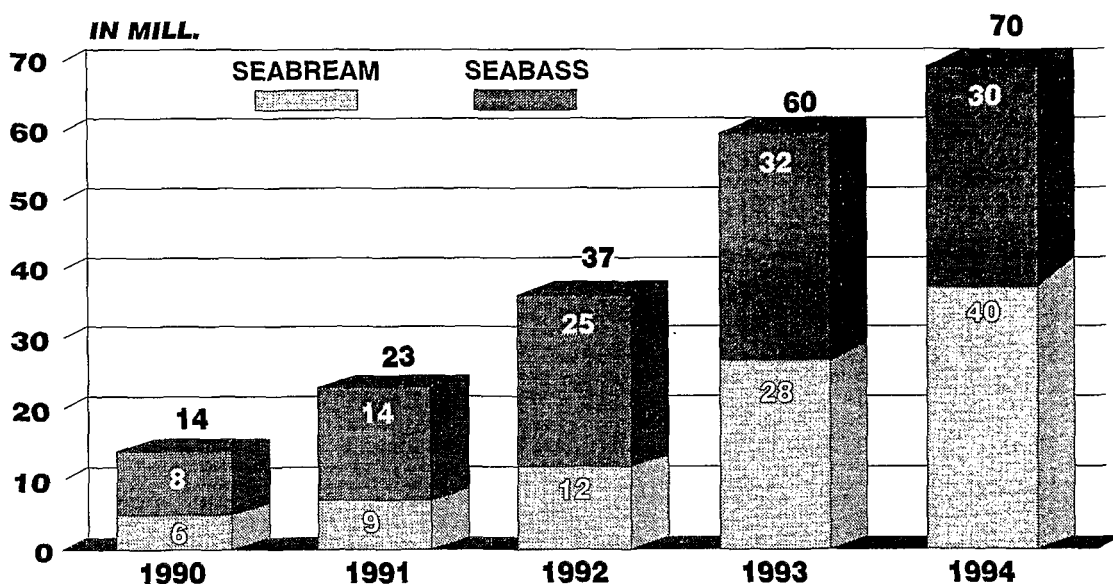


Fig. 3. Seabream & seabass fry production in Greece.

### III. PRICES

#### 1. Methods

Price data for market size fish have been obtained by the Federation of Greek Maricultures.

#### 2. Results and Discussion

The ex-farm prices of both species decreased by approx. 53% between 1989 and 1994 at current Ecu value (Figure 4).

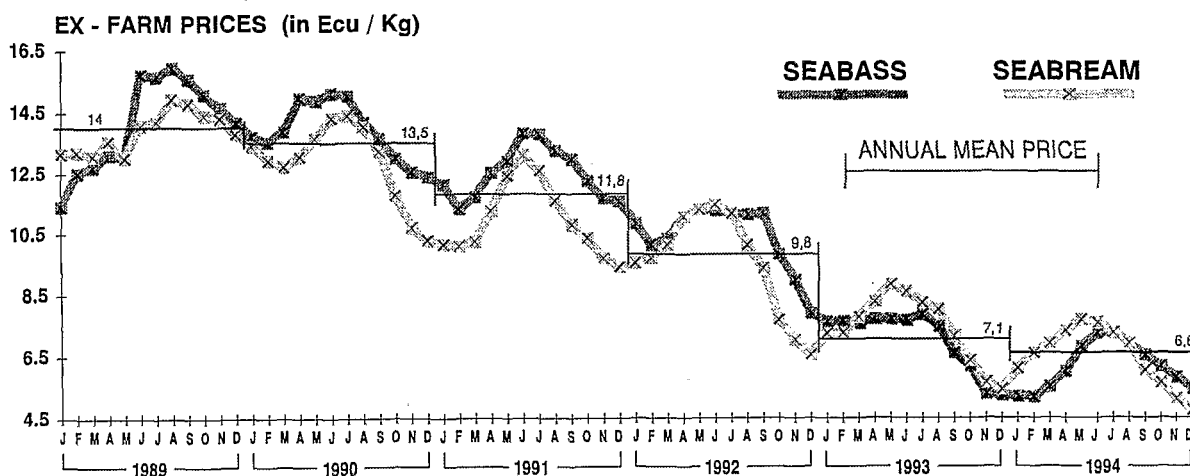


Fig. 4. Seabream & seabass price evolution in Greece.

### 3. Conclusions

We are experiencing the same phenomenon happening for bass and bream as it did for salmon and it would be impossible to avoid the repercussions that the salmon industry faced. Prices of the farmed salmon in Northern Europe was cut down in half in less than 10 years. The same has happened in bass and bream prices, but in less than 5 years (from an average of 14 Ecus in 1989 to 6.6 Ecus in 1994).

## IV. MARKETS & MARKETING

### 1. Methods

In this chapter the author express his personal views based on experience obtained from marketing aquaculture products over the last 12 years.

### 2. Results and Discussion

#### (a) Markets

The developments during the last couple of years indicate that from the total Greek production of seabass and seabream approx. 70% is exported and the remaining 30% is consumed in the domestic market.

The export activity of the Greek mariculture industry had almost exclusive orientation towards the Italian market. Only last year (1994) a few exporters tried hard to penetrate new markets. The outcome of those efforts resulted in realizing 10% of the exports in the new markets (U.K., Germany, France, etc), while this year (1995) we expect that the share of new markets will double (20%).

The prospects, at least in the short-term, are definitely better in Southern European States. Demand in the North is limited to specific ethnic groups, mainly because our species are not known to the average consumer. Good markets exist for limited quantities, through specialized importers, but it is inevitable that demand enlargement will need advance marketing action.

The Southern European States which present market interest for the Mediterranean aquaculture products are limited to Greece, Italy, France and Spain. The last two markets (France, Spain) have two major disadvantages for greek penetration:

- \* long distance, which presupposes that they cannot be serviced by truck, but only by air (high transport cost)
- \* internal competition from existing production units in these countries, that have got comparative advantage, due to proximity.

In Table 3 we have attempted to estimate internal consumption for sea bass and sea bream in the Southern European States, as well as in Northern European States.

Unfortunately, the inexistence of statistical data makes such an attempt very risky. It is tried for the first time and we should take it as an approximation and in no circumstances as reliable source.

**Table 3. Estimate of seabass & seabream in the E.U. countries. 1994.**

(IN TONS)											
	GREECE		ITALY		FRANCE		SPAIN		OTHER E.U. (2)		
	SEABREAM	SEABASS	SEABREAM	SEABASS	SEABREAM	SEABASS	SEABREAM	SEABASS	SEABREAM	SEABASS	
<b>WILD CATCH</b>	300	600	2.000	1.000	600	2.800	500	600	100	200	
<b>INTERNAL SUPPLY FROM AQUACULTURE</b>	5.500	6.500	1.400 <sup>(1)</sup>	2.600 <sup>(1)</sup>	800	1.600	2.700	500	600 <sup>(3)</sup>	100 <sup>(3)</sup>	
<b>EXPORTS</b>	(2.300)	(6.600)	(300)	(200)	(400)	(500)	(700)	(400)	(200)	(100)	
<b>IMPORTS</b>	-	-	3.600	7.400	500	100	500	300	1.000	600	
<b>TOTAL INTERNAL CONSUMPTION</b>	3.500	500	6.700	10.800	1.500	4.000	3.000	1000	1.500	800	
<b>TOTAL INTERNAL CONSUMPTION OF SEABREAM &amp; SEABASS</b>	4.000		17.500		5.500		4.000		2.300		
<b>PER CAPITA CONSUMPTION</b>	0,4 Kg		0,3 Kg		0,1 Kg		0,1 Kg		0,01 Kg		
					TONS		% OF TOTAL CONSUMPTION				
					TOTAL E.U. CONSUMPTION		35.000	-			
					E.U. AQUACULTURE PRODUCTION		22.000	63%			
					MEDITERRANEAN AQUACULTURE PRODUCTION		28.000	80%			

(1) INTENSIVE & EXTENSIVE

(2) PORTUGAL, GERMANY, U.K., BELGIUM, HOLLAND

(3) PORTUGAL

SOURCE : NIMEXE / FAO / J. STEPHANIS ESTIMATES

Looking at those indicative numbers in the Table, we could draw some results.

(1) Greece: It appears that Greece has got the highest per capita consumption of the products (mainly sea bream) from all other European States. It is rather sure to say that three main facts contributed to it:

- \* the dynamics of the greek aquaculture industry, that promoted its products to all consumption centers of the local market.
- \* the continuous decrease of prices, that made the products attractive to the consumers.
- \* the penetration of the super-market chains that brought these products closer to the consumers.

(2) Italy: Although the per capita consumption appears to be relatively high, it seems that there is room for further expansion.

The super-markets have already started to trade sea bass and sea bream from aquaculture.



- (3) France: This market seems to have big potential for development. Low per capita consumption is influenced by the lack of product knowledge in northern part of France compared with the southern. On the other hand two facts, about the French market, should not be ignored:
- \* it is the center of huge quantities of wild catch landings, which in turn is a major supplier of other European markets.
  - \* existing prices of fish from wild catch, as well as of other aquaculture products (trout, salmon etc), have negative effect to the demand of farmed sea bass and sea bream at today's price levels.
- (4) Spain: This market seems to have huge prospects for development. On the one hand internal consumption appears to be very low and on the other the country has got an enormous tourist industry. Of course the first crack to this potential growth belongs to our Spanish colleagues.

(b) Marketing

With natural fish supplies declining, aquaculture production is growing in importance. But for future growth, the seafood industry must also improve marketing, packaging and quality as well as ensure stable prices, the final task being partly beyond its control.

Aquaculture Marketing as a discipline is extremely vital, but its application to our industry should follow the evolution of this decade. Through the mist, two contradictory ideas are emerging. One is that **producers must move closer to retailers** "Marketing departments will have to get rid of their arrogance and go and ask retailers how they can make money together" a marketing expert said. An alternative idea is to **focus more on the consumers**. Being a fresh fish producer it is extremely difficult to follow this pattern.

During the last 10 years we are experiencing two more permanent changes in the pattern of shopping. The manufacturers of Fast Moving Consumer Goods (FMCG) around the world have spent a decade busily denying that they matter. Only now have they begun to admit that the danger is real. The first trend is that **people increasingly buy goods on price**, not because they carry a famous name or because they are displayed on the shelf of a reputable multiple. The second trend is the **shift of power from producers to retailers**. Investment in new shops and information technology, and the weakening power of brands, have helped retailers to exploit their proximity to the consumer and dictate terms to their supplies.

During the last 3-5 years we are watching the invasion of the supermarkets to the fresh

fish trade. They are increasing year after year their market share all across Europe, while the traditional channels (mainly fish mongers) are losing the pace. In 1993 the percentage of fresh fish as purchased in super-markets are shown in Table 4.

Table 4. Market shares of fresh fish in Europe. 1993.

PURCHASED FROM :	GREECE	ITALY	U. K.	FRANCE
MONGERS	58.5%	45.5%	36.4%	26.0%
MARKET STALLS	33.0%	39.1%	18.3%	18.0%
MOBILES	3.5%	4.1%	3.0%	4.0%
MULTIPLES + DEPT. STORES	5.0%	11.3%	42.3%	52.0%
TOTAL	100.0	100.0	100.0	100.0

The super-markets with their long rows of shelves and freezer cabinets, they can offer substantially lower prices than traditional fish shops. Powerful supermarkets chains not only squeeze producers and manufacturers for lower prices, but also create vigorous competition to producer's brands with their private - label products.

Today, the Mediterranean aquaculture industry is using almost exclusively the traditional marketing channels.

### 3. Conclusions

For future growth, the Mediterranean aquaculture industry should put a lot of emphasis adopting more sophisticated methods of marketing. This is "a must" for penetrating new markets, but it is also necessary for enlarging the existing ones.

The strategy of investing in advance marketing channels, abandoning gradually the traditional whole-sale system, implies also differentiation of the product, either by primary processing or by branding it - quality scheme being part of it.

Of course it may even not be appropriate for the fish farming business to go this far. It make more sense for them to let others, whether they are formed as the marketing arm of groups of producers or as other businesses to whom the producer sells on contract to do the marketing on their behalf, so that they can concentrate on their core strengths in production. This increases their dependence on others which has risks. On other hand it is less risky to be an attractive supplier of a good quality product than to be second rate in marketing because you do not have the resources to do it properly (Susan Shaw & Juliette Gibbs 1993).

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