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OLIVE SUBSECTOR STUDY

AND

RECOMMENDATIONS FOR PROJECT ACTIVITIES

MOROCCO AGRIBUSINESS PROMOTION PROJECT

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FOREWORD

The Olive Subsector study is the first of eight commodity action plans to be prepared by the Agribusiness-Marketing-Investissement (A-M-I) portion of the Morocco Agribusiness Promotion Project (MAPP). The AMI has many tools and resources to assist private businesses, both in Morocco and the United States. In order to deploy these resources, AMI is preparing an action plan for each of the eight subsectors based on an analysis of the structure of the subsector and the evolution of the markets for the products in that subsector, either new or old. These studies will provide the project with an analysis of the evolution of each of the subsectors and permit the project to compare the potential benefits and returns from applying its resources to one or the other of the subsectors and will highlight those areas with the greatest potential return within a given subsector. The goals of the study to develop the action plan, are to:

- highlight the opportunities and constraints facing the subsector, especially those which the project can take concrete steps to address;

- provide the basic understanding of the opportunities which is necessary to serve as a preliminary screen for the Promotion and Investment Fund (PIF) requests;

- generate baseline data on the potential clients as well as the basic information needed for product promotion;

- provide a clearer identification of potential buyer and investor opportunities and linkages; and

- introduce the project to potential partners for investment opportunities and other project activities in Morocco's agribusiness community.

In order to develop this action plan, the study uses a subsector diagnostic approach to identify the principal channels through which product flows from the fields to the consumer, the trends in the industry, points of leverage, and the opportunities and constraints facing the industry. By differentiating the channels and identifying the points of leverage (those points in the industry where a concerted effort will have the largest payback) the action plan determines the best ways to approach the constraining factors and realize the opportunities which exist.

The initial fieldwork was carried out in early December 1992 by members of the AMI staff in conjunction with two olive specialists from Tri-Valley Growers (TVG), one of the largest olive grower/processing cooperatives in the U.S., and Agro-Concept, a Moroccan consulting firm. Following two and a half weeks in Morocco, one of the TVG specialists and one of the AMI staff travelled to Europe where interviews were carried out with a Spanish processor, a French processor, the World Olive Council in Madrid, and British and German brokers. During the field work in Morocco, more than twenty private Moroccan

firms involved in olive growing, processing, pressing, and selling were interviewed, along with the relevant public sector agencies with the task of supporting the operators in the sector.

The study examines the unique dynamic of the Moroccan olive subsector, which is built around one dual purpose olive variety, the Picholine marocaine. The subsector has two very different products: table olives and olive oil, which will be treated separately in the analysis below. Because the Picholine Marocaine variety cannot be used for either product, there is competition between table olives and oil olives processors in bad seasons. The two end uses are complementary because those olives which cannot be processed are sent to the oil presses. Therefore the dynamic between the two alternatives is always present.

The final phase of the **action plan** development was a meeting between the concerned processors and the project staff to get their feedback on the recommendations stemming from the study.

The study begins with a review of olive production in Morocco, followed by a review and analysis of Morocco's markets for table olives and olive oil. The structure of the industry is presented, using the subsector maps to define the channels through which the product flows and defining the number of participants and the flow of the production for both table olives and olive oil. The review of the supporting environment, including legislation and institutions, leads into the definition of the driving forces and points of leverage within the subsector which will be necessary for the project to take into consideration. Finally a perception of the opportunities facing Morocco, the constraints to attaining those opportunities and a vision of what Morocco's olive industry could look like in the future lays the groundwork for the project Action Plan which is presented here in the form of global recommendations with specific project oriented activities which might lead to achieving those recommendations.

The team would like to extend its thanks to Messrs. Maghdad and Berichi in the Ministry of Agriculture and Agricultural Development (MAMVA) for the assistance which they provided during the field work and their comments on the draft report.

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LIST OF ACRONYMS

ADEHO	Association des Exportateurs de l'Huile d'Olive
AMI	Agribusiness, Marketing, Investissement
ANUGA	European Food Trade Show, Cologne, Germany
CMPE	Centre Marocain pour la Promotion des Exportations
COI/IOC	Centre Oléicole International, International Olive Council
EC, EEC	European Economic Community
DH	Dirham
DPH	Direction de la Production Végétale, Département Horticole
DRS	Défense et Restoration des Sols
EACCE	Etablissement Autonome de Contrôle et de Coordination des Exportations
FAO	Food and Agriculture Organization
FDA	Food and Drug Administration
FICOPAM	Federation des Industries de la Conserve des Produits Agricoles du Maroc
GEMINI	Growth and Equity through Microenterprise Investment and Institutions
IMEC	Institut Marocain des Etudes et Conseils
INRA	Institut National de Recherche Agricole
MAPP	Morocco Agribusiness Promotion Project
MAMVA	Minis[illegible] de l'Agriculture et de la Mise En Valeur Agricole
OCE	Office [illegible]mmercialisation et d'Exportations
ORMVA	Office Régionale de Mise en Valeur Agricole
PAC/CAP	Common Agricultural Policy
PIF	Fond de Promotion de l'Investissement
PNUD/UNDP	United Nations Development Program
SIAL	Salon International de l'AgroAlimentaire, Paris, France
SODEA	Société de Developpement des Exploitations Agricoles
TVG	Tri-Valley Growers

OLIVE SUBSECTOR
EXECUTIVE SUMMARY

I. INTRODUCTION

Morocco is on the verge of becoming an important actor in the world olive market. In the last few years, following a steady annual increase in exports, Morocco has edged out Greece as the second leading exporter of table olives in the world. Its estimated 53,000 tons of exports in 1991/92 account for nearly 20% of the total traded in the world, following Spain's 130,000 tons (45%). In olive oil, Morocco is an irregular exporter, which peaked at 26,000 tons of olive oil exports in 1989/90, following 8 years with no exports at all.

Morocco has an active program to increase olive production by promoting olive tree planting across the country. Since 1986, Morocco has planted an average of 15-20,000 hectares per year of olive trees, but half of these have been for soil conservation purposes, not olive production. This brings the productive acreage to about 345,000 ha. With proper management, the existing orchards could produce substantially more olives.

II. DYNAMICS IN THE SUBSECTOR

A. GENERAL OVERVIEW

1. The most important dynamic inside the sector is the inherent tension between olive oil and table olives. The table olive sector, which is export oriented, must compete with olive oil sector for olives, the latter targeting internal consumption. Since at least 250,000 tons of olives per year are used in olive oil production, compared with only 80-100,000 tons of table olives, olives for olive oil are the dominant use. The traditional focus on meeting domestic demand for olive oil has placed a premium on the olives for oil and even led to some intervention on the part of the government to assign harvest dates. Despite the fact that table olives are the higher value product, the price of olives starts with the anticipated price for oil olives.

2. Table Olives are more valuable than olive oil. With an average sales price per kilo for bulk processed olives of about $1.25 (FOB Casablanca) compared to $2.1/kg olive oil (FOB Casablanca), each kilo of table olive represents approximately three times the value added than the olive for oil.[1]

3. Morocco is highly competitive on the world market for table olives, but not for olive oil. Spain, the leading table olive exporter in the world, has significantly higher costs, so Morocco should be able to take market share with good product handling. Spain's

[1] The direct comparison must be done on a per kilo of fruit basis: it takes more that 5 kg of olives to make one liter of oil, compared to one kg for table olives, which results in a value per kg of $.48 for oil olives versus by-product adjusted $1.25 for table olives.

costs in the 1992/93 season are running $1,000/ton of fruit delivered to the factory gate and labor charges are running $13/hour. These two figures contrast markedly with Morocco's costs of $450/ton for fruit and $1/hour for labor. Even if Morocco's packaging costs and transport costs to Europe and the USA are substantially higher than in the North, Morocco is still cheaper.

4. Overall, olive yields are very low. The national average is about 1 ton/ha in 1992/93, with average yields/ha ranging from less than 1 ton/ha in the rainfed areas to 2.5 tons in the irrigated perimeters. About 5% of the total area in olive plantations (18,000 ha) is reaching production levels of 6-7 tons/ha, accounting for 30% of national production in years of low rainfall. This contrasts with production in the U.S. where growers in California average 10 tons/ha. The cause of the low yields is generally poor management of all aspects of the resource (olive plantations) usually by absentee landlords.

B. DYNAMICS IN TABLE OLIVES:

Overall, Moroccan table olive processors are increasing their sales, as seen from the growth in exports. Since the removal of the OCE's monopoly on table olive exports in 1982, there has been nearly a 100% increase in exports. Morocco's table olive sector is an export oriented sector, where the major exporters serve as the driving force, taking the lead on setting prices to ensure that they will get sufficient fruit for export. Some of the important dynamics within the table olive industry include:

1. There has been a concentration of the export sector in the last five years. The number of firms authorized to export by the EACCE has dropped from 60 plants in 1988 to 46 in 1991. In 1992, another 10 plants were placed on restriction for export. This has not resulted in increased vertical integration, however.

2. Morocco has increased its dependence on the French market. Between 1984 and 1990, Morocco doubled its exports of table olives to France, from 18,000 tons to 36,000 tons. Meanwhile, in that same period, Morocco's exports to its next five best customers also increased by nearly 100%, but from only 4,000 to 8,000 tons. The important element of this increase is that Morocco now supplies over 75 percent of French imports and, since France re-exported about 4,000 tons in 1992, this equates to an even higher percentage of real French consumption. With such a high share of the market, Morocco is highly sensitive to changes in the French situation. France's only other major supplier, Spain, accounts for 20 percent.

Part of the cause of this great increase of exports into the French market has been better developed links to the distribution system through joint ventures with French companies. However, most of these joint ventures are of a commercial nature, solidifying the outlet for product, rather than joint investments in production to better tap Morocco's comparative advantages.

3. There has been significant new investment in table olives and an expansion of higher quality processing capacity. There are new table olive processing plants starting up in Marrakech and in the producing areas of El Kelaa and Beni Mellal. The ones in the new Marrakech Industrial Zone, belonging to the leading exporters, represent significant investments in plant and equipment of up to $3.5 million per unit.

The favorable terms for the sale of the land in the new Industrial Zone in Marrakech (50-60 DH/m^2), which are about one tenth of the market value of the land (500 DH/m^2), have been an important factor in the increased capital investments, but should pay off in increased productivity, since many of the current plants in the old industrial zone are overcrowded and poorly organized with bottlenecks at peak reception periods and in storage.

4. There has been a 20,000 ha increase in the acreage under irrigation in the zones around Marrakech which are preferred for table olive production. This should provide optimal conditions for increased production of many existing olive orchards, and encourage people to plant more olive trees.

C. OLIVE OIL

While the table olive sector targets export for its first quality olives and sells the remainder (second and third quality product) on the local market, the olive oil sector focuses on the local market first, and only exports the excess. Some of the major forces in the olive oil sector include:

1. Dominance of the retail packaged product market by just a few firms. While there are more than 160 firms which press olive oil, only 6-9 of them produce a bottled product. These firms account for most of the local market consumption and all of the bottled/packaged sales. The rest is made up of bulk sales of traditionally (Mâasra) and industrially pressed oils.

2. Moroccan Olive Oil is expensive compared to the world market. The cost of industrially pressed olive oil on the world market is approximately $2.1 /kg, FOB in Italy, which is below the 1993 quoted prices for FOB Casablanca of $2.4/kg.

3. Moroccan consumers prefer the lower quality, cheaper-to-produce lampant oil. This sways the interests of the big packagers towards meeting that demand and using all oil to standardize the local market.

III. OPPORTUNITIES AND CONSTRAINTS

A. OPPORTUNITIES

Morocco is poised to make an important jump in its exports of table olives. It is increasingly competitive on the world market, facing EEC producers with increasing costs and possible tariff barriers into the U.S., the world's largest importer. Its share of other

important markets around the world is still very small. The figures below represent 1991 imports into the major markets, Morocco's existing share, and potential future increase (up to 50% of imports):

Country	Existing Moroccan Exports (tons)	Moroccan % of existing imports	Potential for Moroccan increase (tons)
FRANCE	32,000	75%	0
ITALY	6,000	16%	20,000
USA	4,000	5%	30,000
GERMANY	2,000	13%	6,000

Morocco does not face any serious non-EEC competitors which have the capacity to turn up their volume of exports in the near future the way Morocco could. The principal targeted product for the U.S. market should be the Spanish Style green olive.

If Morocco can increase its production of table olives it can develop the increased supply of olive oil necessary to become a regular exporter of olive oil on the world market. The most lucrative markets are for the specialized extra virgin oil which Moroccan tastes do not favor. However, the liberalization of the trade for olive oil, begun in January of 1993, presents the framework which might make this possible, by allowing cheaper lampant oil to be imported, pressuring local producers to be more competitive and favoring a switch to more competitive niches, i.e. extra virgin. Developing the olive oil trade is a long run objective, but will require some immediate work, as discussed below.

B. CONSTRAINTS.

The following elements are the main constraining factors to establishing a rapidly growing export industry in both products simultaneously.

1. The main factor limiting the growth of the olive subsector, as a whole, is raw fruit supply. The agricultural sector is unable to grow an adequate supply of olives to meet current demand for both oil and table olives on a regular basis from year to year. The supply tension which exists between table olives and olive oil is a limiting factor for reliable increases in olive oil exports.

2. The Moroccan Picholine (Beldi) is a polyvalent fruit - it can go for either oil or table olives. In spite of the security that this provides to the growers, it is not ideal for either product. On the table olive side, there are two problems with the Beldi: the ratio of fruit to pit is lower than other varieties produced in Spain, such as the Mansanilla; and the shape of the pit makes it difficult to remove. For olive oil, it does not have as high an oil content as other oil varieties.

3. Process control and sanitary conditions in many of the processing plants are not sufficient to guarantee the steady production of an export quality product. As exports increase, inadequate process control will result in variable quality. At the same time, increased exports will garner greater attention and control by importing countries. Greater

emphasis is already being placed on process and sanitary conditions in Morrocan canneries. This may be a factor in retaining the edge necessary to enhance Morocco's position on the world markets.

4. Supplier relations are unreliable. Moroccan firms have a reputation for taking orders and not delivering the product ordered or delivering it only with additional financial assistance from the importer. Even though many firms have exported to the United States, these factors lead to a lower price per kg for the Moroccan companies.

5. Inadequate cost accounting systems do not allow the Moroccan processors to clearly identify their costs and move into the more profitable niches. This is not an immediate concern to the industry, which is profitable, but as a few firms become more important exporters and will be competing more effectively on cost, they will need to have greater mastery of their accounting systems.

6. Unsophisticated marketing systems. Morocco has been dependent on traditional supply channels for selling its product on the world market, which is probably why it has maintained and developed such good market links to France. It is difficult to get the family owned and operated firm, with a very thin management structure, to invest in the marketing systems which are necessary to compete with multinational companies.

7. In general, there is a relationship of distrust and speculation between the producers and the processors. This prevents the two critical actors from working together on research to identify the proper fruit to be grown, establishing supply relationships based on confidence. It is important to note that there is no interprofessional structure which can discuss the relations between the two groups.

8. Insufficient product standards can jeopardize long run growth of the export market, either to the U.S. or other European markets. Olives in tins, those with the greatest value added, are inspected into the U.S. for grade, size, quality, maturity, and labeling.

IV. RECOMMENDATIONS FOR PROJECT ACTIONS

Based on the considerations above, the project should focus its attention on the table olive sector, where the most likely progress can be achieved in the short to medium term. The recommendations below must be clearly defined and prioritized in conjunction with the private companies in the Olive subsector around the objectives and opportunities they wish to pursue. The majority of the actions are generalized to the industry, but specific export opportunities must be addressed individually.

A. INCREASE AND IMPROVE OLIVE PRODUCTION

While the purely agricultural side of olive production is not one of AMI's focal points, it is the major constrain to increased Morocco's olive exports.

It is important to take into consideration that exporting is becoming increasingly complex around the world and that only a subset of the existing industry has the capacity, interest, and resources to successfully export the quantity of product with the level of quality required to effectively expand Morocco's exports. This means that to increase Morocco's olive exports, a goal which will have great impact on large numbers of growers around the country, the project will need to work with those companies which show the greatest potential for improvement. Targeting points of leverage which will generate the greatest return from limited investment may mean working with larger processing firms to reach the greatest number of beneficiaries in the industry.

1. Increase the productivity of the existing orchard.

Proposed Project Action:

(a) Promote increased awareness and interest on the part of the larger plantation holders (10 ha and up) on the potential profitability which could be achieved through increasing yields. Attainable increases could reach 2-3 tons per hectare, or an additional 50-60,000 tons/yr.

(b) Develop a for-profit service company to help increase olive productivity. There is a large discrepancy in the potential productive capacity of the olive orchards and current yields. A firm specializing in olive production techniques could sell its services based on an increase in yield, an annual retainer, or other format.

2. Diversify the mix of olives available in Morocco in the national orchard if the table olive is to be a product of the future.

Proposed Project Actions:

(a) Help identify the new varieties of table olives which will respond best to the demands of potential new markets in the U.S. and Germany.

(b) Improve the communications between the industrial operators and the MAMVA and INRA to ensure that their needs are incorporated into the research programs and the government incentive programs to the growers, since the processors are the market for the product.

B. INCREASE TABLE OLIVE EXPORTS

Morocco can reasonably expect to increase its exports of table olives. The target products and markets should be the United States for Spanish Style green olives, and Germany and Italy for all kinds of olives.

1. Improve the quality of the product and establish its standards of identity.

Proposed Project Action:

(a) The industry needs to establish its own terminology and standards for grading, quality, maturity which should be reflected back to the producers at purchase.

2. Improve plant process control and sanitary conditions.

Proposed Project Action:

(a) Organize an industry awareness trip to the U.S. to visit the U.S. trade and determine how it organizes itself and sets its own standards.

(b) Bring U.S. olive industry process specialists to work with the industry to help them identify the main problems together and develop industry standards which they must respect. While the role of the EACCE to enforce these standards will be important, the standards must also respond to importing country conditions, such as those established by the FDA.

(c) Bring process specialists to do process audit and help individual companies install and understand proper procedures for process control (particularly for oxidized black). This could be a cost sharing activity.

(d) Improve the capacity of the EACCE to regulate and enforce the standards.

3. Improve understanding of the marketing channels in countries other than France.

This will require investigation of the market segments and distribution channels.

Proposed Project Actions:

(a) Commission market studies which are jointly defined and funded by industry, the project and perhaps the CMPE. Depending on the industry interest, this might be a Nielsen market study or more targeted market segment and distribution studies.

(b) Organize a tightly targeted seminar around the techniques and requirements needed for effective marketing.

(c) Organize and participate in an olive market trade mission and industry awareness tour to the U.S.

4. Improve the reputation of Moroccan product for export.

Proposed Project Action:

(a) Develop a video oriented towards trade shows and the consuming market which concentrates on the increased investment in the table olive processing sector in Morocco, to blend modern capacity with Morocco's long tradition of olive production.

(b) Organize a short seminar on marketing, as in 3(b) above, concentrating on the importance of the service side of supplying products: reliability, communication, providing satisfaction.

5. Improve the cost accounting techniques:

Proposed Project Action:

(a) Produce a specialized cost accounting short course for olive processing.

C. INCREASE OLIVE OIL EXPORTS

Morocco is presently a secondary exporter of olive oil and requires a vastly greater supply of olives to generate the exports needed to make it a regular world market supplier. It is capable of producing a quality product for the export markets, but it needs to meet the standards and develop the respect of the world market, which it does not have at the moment.

1. Improve the processing reputation and reliability.

Proposed Project Action:

(a) Get a certified laboratory to control the quality of the oil so that it meets world standards.

(b) Organize a joint seminar on olive oil standards and processing procedures by the World Olive Council to increase the information flow on both sides.

2. Gradually develop a few small brand name export operations.

Proposed Project Action:

(a) Provide individualized assistance to firms to test market product in retail size.

I. THE MOROCCAN OLIVE PRODUCTION

This section presents Morocco's olive-growing heritage, both from the point of view of varieties and from the point of view of scope of production and yields. It describes the results achieved during the last ten years, concluding with a classification of production systems. It ends with a discussion of the reasons for which a producer will choose to have his production canned or pressed.

Much work has already been done by the MAMVA in 1988, in collaboration with FAO, on the olive sector in Morocco. Much more detailed information can be obtained in this set of fifteen documents. The tables in Annex 1 provide further details.

A. *EVOLUTION OF PRODUCTION - THE NATIONAL OLIVE GROVE*

The olive tree represents the most important part of the Moroccan tree crops. The planted surface area is over 350,000 ha. Its development[2] over the past twenty years (see graph no.1) shows a regular growth of planted areas.

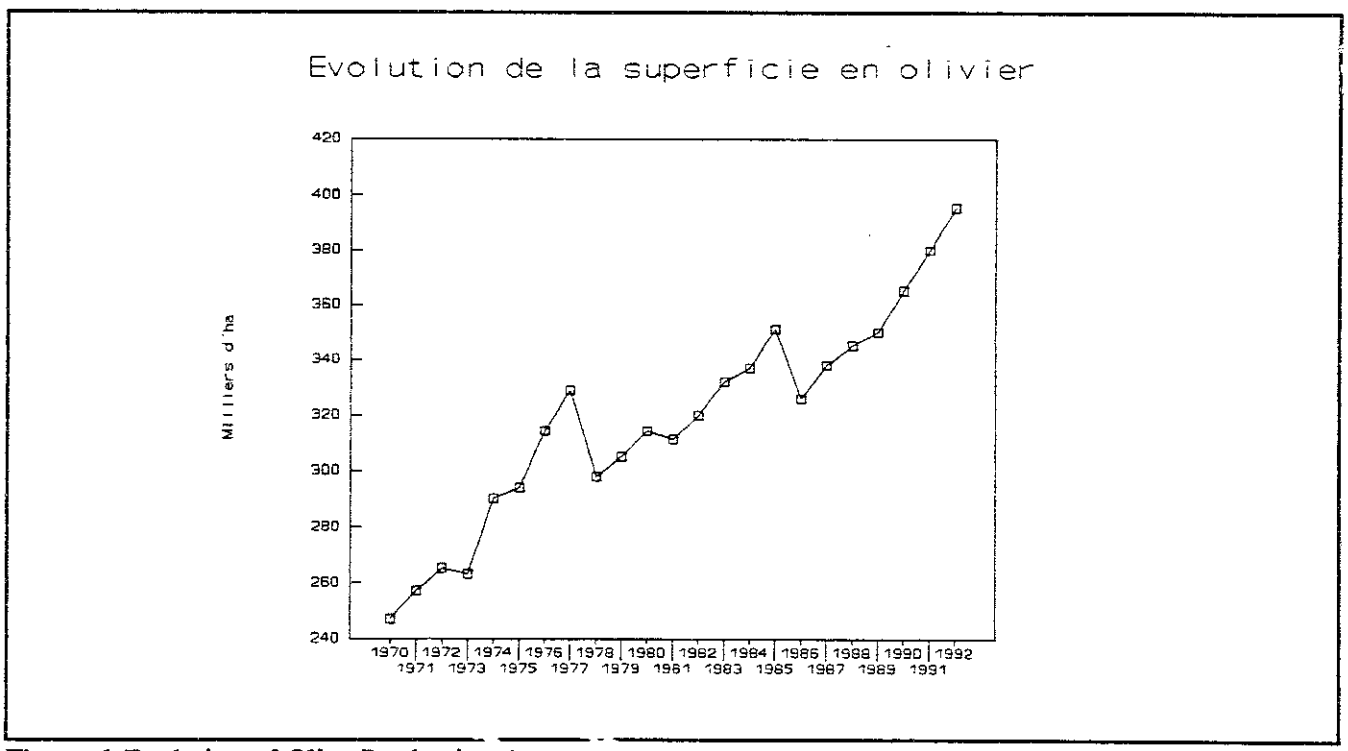


Figure 1 Evolution of Olive Production Area

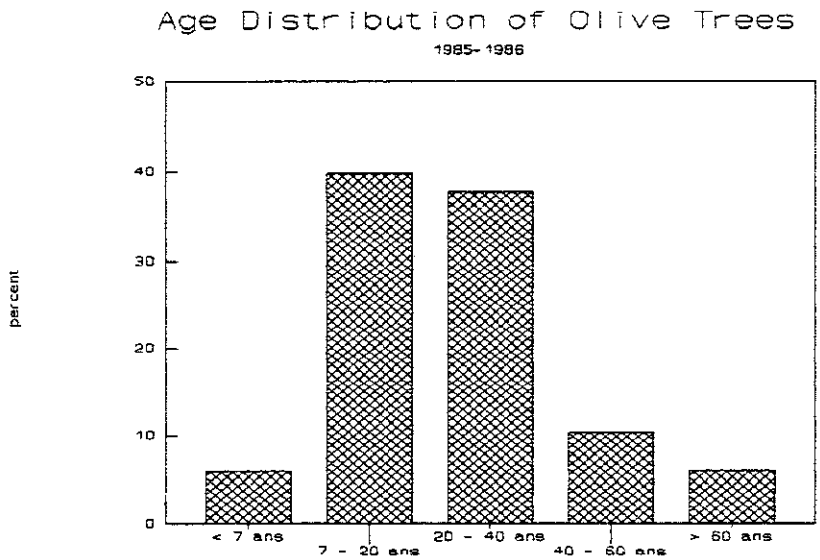
[2] data relative to production is given by MAMVA, except when specifically mentioned)

This development partly reflects the efforts made by the MAMVA for the evolution of this productive activity. In particular since 1986, a major plantation program has been initiated in the 'bour' zones (rain-fed zones) for the 'Defense et Restauration des Sols' (DRS) (Soil Protection and Restoration) and in irrigated zones where the MAMVA and the Eaux et Forêts have distributed about 1.5 million trees per year.

The development of this surface area must not, however, conceal the great differences between the various systems of production and the three main production regions, discussed below. Above all, we must take into consideration the fact that, of the 400.000 ha. planted, nearly 80.000 ha. are planted for the DRS on steep hillsides and in thin topsoil areas, to control erosion, not for production. Consequently, their yield is virtually negligible, averaging 300 - 500 kg per hectare (one hectare is defined as 100 trees).

A detailed analysis per age class of the trees is difficult to carry out, due to lack of good basic statistics. The olive-growing survey of the 1985-86 campaign, which is the best available information, indicates that in 1986, 6% of the trees were less than 7 years old,

Table I Age Distribution of Olive Trees



whereas 78% were less than 40 years old, illustrated in the graph to the right of this page. We can, however, conclude that, of the 100.000 hectares of trees planted during the past seven years, half is for production purposes. Therefore, of the 320 000 hectares of trees accounted for in olive production, 50 000 are less than seven years old. The above curve illustrates that a large proportion of these olive-trees are also very old.

Another important element highlighted by the 1985-86 survey, is that for over 90% of farms, olive production is a secondary activity. This has a considerable impact on the way in which the farm is run.

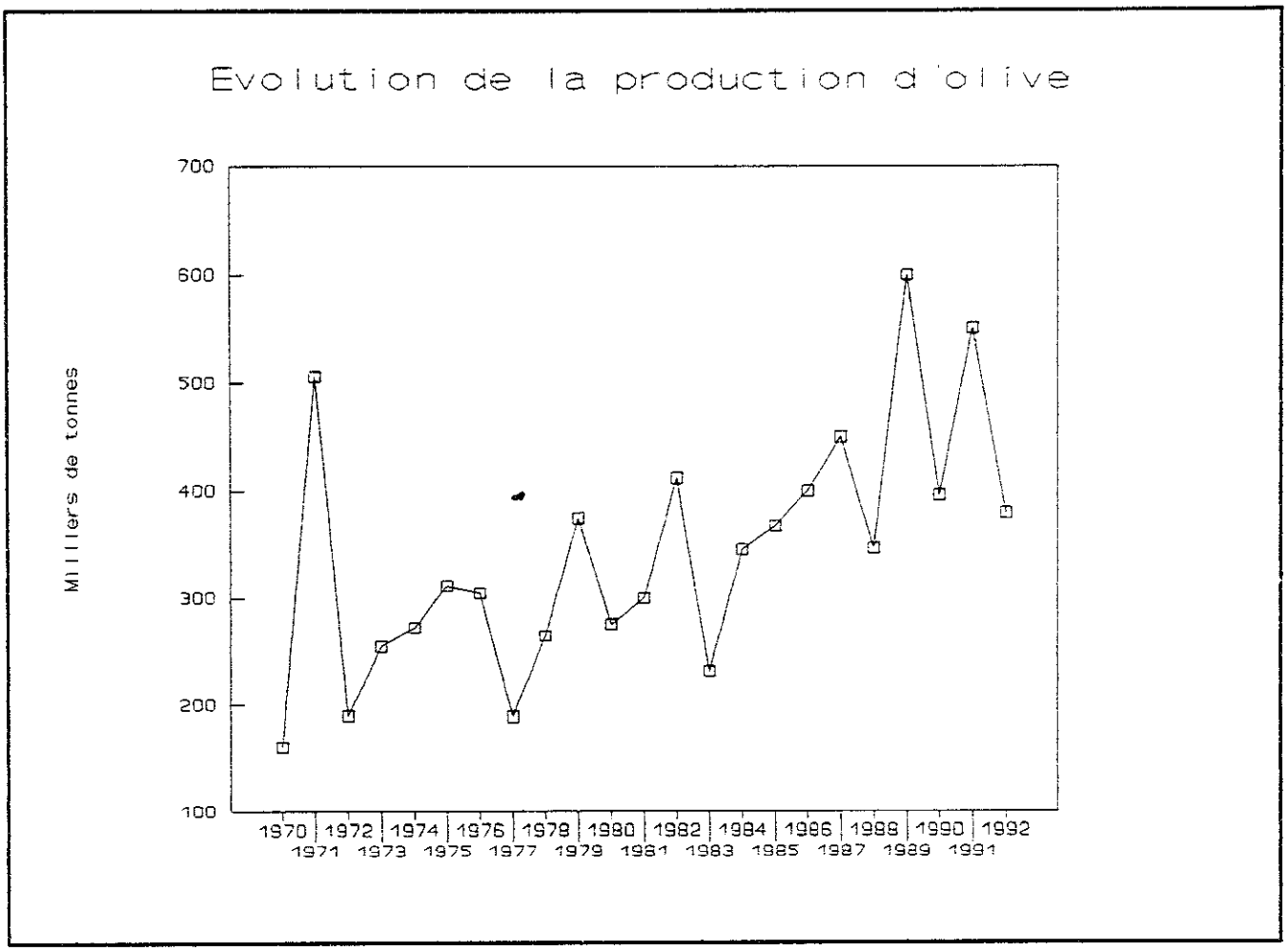


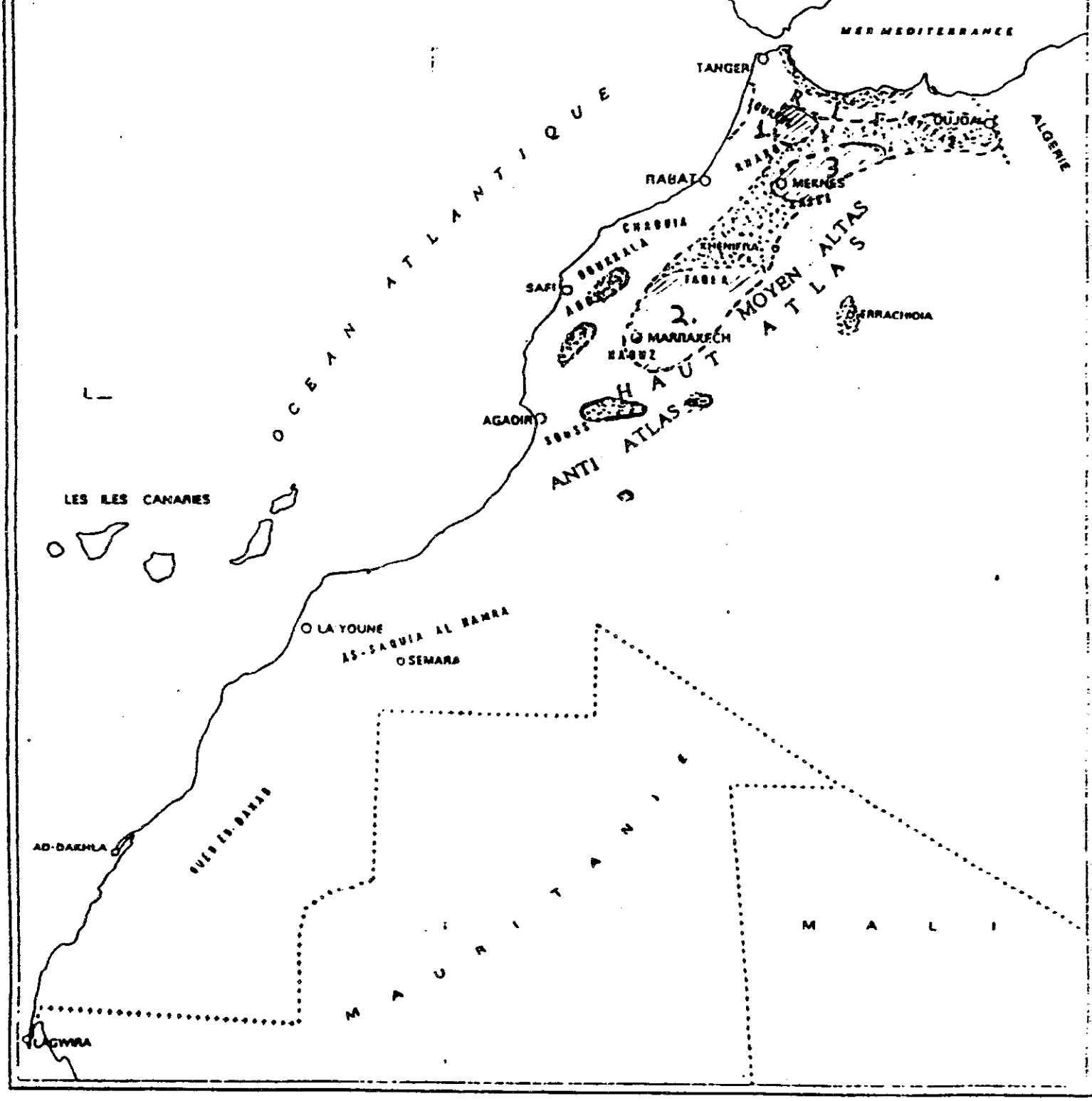
Figure 2 Evolution of Olive Production in Morocco

The graph III, representing the evolution of production, confirms the revival in conjunction with MAMVA's extension and promotion activities. Nevertheless, in comparison with European standards (6 to 7 tons/ha.), the yields are very low. An explanation of these features of Moroccan olive production must be sought by examining the characteristics of regions and production systems.

B. VARIETIES

1. The Moroccan Picholine

The Moroccan "Baldi" picholine is the dominant variety in the national orchard. Its main characteristics are its double utilization, both for canning and pressing and also its pruning. Indeed, if these trees are not well pruned by their owners, they grow very high, making it difficult to pick the olives and inciting producers to beat the trees or leave the fruit to ripen on the trees to facilitate harvesting. The Moroccan picholine represents 98% of the national orchard according to the latest available estimates.



1	ZONE NORD	25000 ha	(CHEFCHAOUEN - OUEZZANE PROJET DERRO) TETOUAN - LOUKKOS - OUJDA - NADOR
2	ZONE SUD	110000 ha	(TADLA - BENI-MELLAL - HAOUZ - MARRAKECH - EL-KALAA)
3	ZONE CENTRE	145000 ha	(FES - TAOUNATE - TAZA - MEKNES)
	AUTRES REGIONS	90000 ha	(SAFI ESSAOUIRA - TAROUDANT -

2. Other Varieties

The INRA research center in Marrakech is at present testing other varieties of olives. Promising clones of the 'Baldi' have been identified and tested, but they have been planted in very limited quantities. Another variety, called 'Dahbia' has been identified and promoted by a nurseryman in Meknès. Very small quantities of this variety have been planted.

Growers in the region of Marrakech have also tried to acclimatize several varieties. The picholine from Languedoc and from Ascolana can be found and some Manzanillas.

C. PRODUCTION ZONES

The Moroccan orchard is spread over three main production areas, each with its own specific characteristics. The map on the next page clearly shows the three main areas:

1. The North

This includes the Rif and Pre-Rif (Chefchaouen, Taounate, Tétouan, Sidi Kacem and North of Taza). The climate is humid with average rainfall above 400 mm. About a third of the national orchard is concentrated in this region, grown under rain-fed conditions. It is distinguished by the coexistence of olive-trees grown in orchard conditions and fairly productive, and "forest" plantations set up as part of the DRS programs. The majority of this production is used for olive-oil, pressed in the zones of Meknès, Fés and Ouezzane.

2. The Center

This region is situated between the first region and the Middle Atlas. It includes the provinces of Fés, Khémisset, Khénifra and part of Taza (Oued Amlil). Average rainfall is above 400 mm. This region comprises about 17% of the national olive orchard. Its production is mainly used for olive-oil.

3. The South and East

This region has a sub-arid climate and stretches from the East (Nador, Oujda) to the pre-Saharan provinces. It comprises nearly half the national orchard. It is in this region that most irrigated orchards are to be found, grown under intensive cultivation over 35 000 ha. Most olives destined for canning originate from this area.

D. PRODUCTION SYSTEMS

Four production systems were identified during the PNUD/FAO project in 1988.

1. Olive Cultivation in Zones of Scattered Rain-Fed Production (199,000 ha.)

This traditional method of cultivation, low in productivity, is based on an extensive production, without the use of fertilizers or phyto-sanitary treatment. In good climatic conditions, and in the case of deep soil, yields can reach 100 kg/tree per year for an average yield of one ton per hectare [3]. In orchards, the average yields, after twelve years, are around 12 kg/tree, or 1.2 tons/ha.

In a DRS plantation, which cover almost 80 000 ha. of this zone, the yields are negligible.

2. Olive Cultivation in Favorable Rain-Fed Conditions (112,000 ha.)

This is typical of olives grown in groves. They are planted with a density of around 150 trees per hectare and can be found on the outskirts of Fés and Meknès. The average yields per tree are about 18 kg, in other words a production of 2,4 tons/ha. from the twelfth year on.

3. Olive Cultivation with Periodic Irrigation (37,000 ha.)

These olive groves are typical of the Haouz and Tadla regions (the South and East). Yields, at peak production age, reach around 3,5 t/ha., or 21 kg/tree (always 150 trees per ha.). This method of production gives good table olives and approximately 65% of olives grown in this way are destined for canning. These olives are transported to Marrakech and to Fez to be processed.

These plantations are usually more extensive. As they have access to irrigation, they often are larger than 10 ha. and yield considerable amounts of fruit, from 50 to 100 tons per plantation. A few large plantations, belonging to SODEA and the Royal Domains, consist of hundreds of hectares.

4. Irrigated Olive Cultivation (1000 ha.)

With irrigation, average densities are much higher and vary between 250 and 400 trees per hectare. The 400 trees/ha. density has been introduced recently, to reach the high yields needed to justify using this land for olive cultivation. The orchards are generally well-managed and irrigation frequently. Phyto-sanitary treatment, fertilizers, and good pruning techniques are applied. Yields obtained, from the eighth year on, are around 6,5 tons/ha. and can reach more than 20 tons/ha. Canners who integrate into their own production, increasingly tend to use this method.

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[3] one hectare of olive-trees in rain-fed zones has an average of 100 trees

E. OLIVES FOR THE TABLE OR FOR OIL?

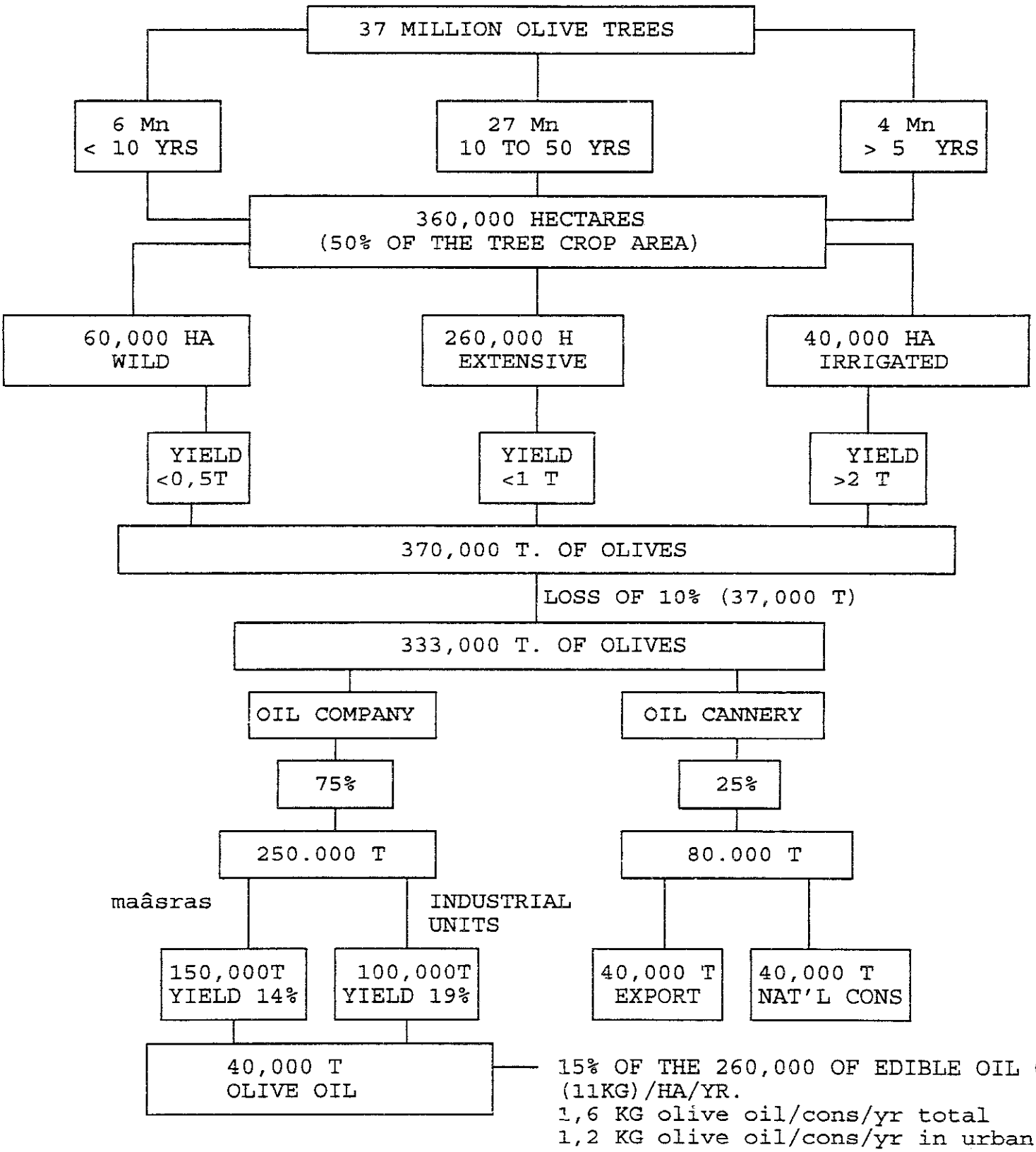
Whereas in Spain, specific olive varieties are used for canning only, in Morocco, the Baldi can be used for either oil or canning. The central question comes back to how the production is divided between these two usages. Annex 3 reviews the different ways in which olives are purchased by processors and pressers. The decision to sell his olives for oil or canning must be made by the producer between the end of September and October. The principal factors influencing this decision are:

- Olives for canning generally bring a higher price than olives for oil;
- Irrigation gives better fruit, with a suitable calibre for canning; this leads the irrigated zones to produce mainly for table olives (Marrakech, Kelaa, Tadla, Taroudant);
- Large well-managed orchards tend to aim for the production of table olives as these bring a better price (the large orchards are above all in irrigated zones);
- Regions with conflicting demands on the supply of labor prefer to harvest the fruit later in the season, thus reducing the cost of picking but also dictating that the fruit go for oil. This happens least in the Southern region where labor is plentiful.
- The procurement method also plays a part in the producer's choice, for if he sells the fruit on the tree, the decision is already made for him.

Of all the different elements that enter into this decision, the most important is the market. The fact that the oil market is more important because of its greater consumption of olives, dictates the basis for price calculation. Even in a low production year, the quantity of table olives will probably remain fairly stable, as the canners/exporters will raise their prices in order to assure the quantity necessary to satisfy their orders. Any fluctuation of production will concern olive-oil, either in surplus or deficit. However, the fact that local demand for olive oil remains fairly constant at about 40,000 tons, means that in years of low production, there will be an important upward pressure placed on the price of table olives, which must be bought well before the oil olives, so that most of the local market's demand for olive oil will be able to be met.

The diagram on the following page summarizes Morocco's average production figures and presents the flow of olives in the subsector, leading to their ultimate utilization. As previously stated, in seasons of surplus or deficit, it is above all the quantity of olive-oil that varies.

ESTIMATED MOROCCAN OLIVE FLOWS DURING 1980
(AS SEEN BY LOUSSERT/INRA)



II. OVERVIEW OF MARKETS FOR OLIVES

A. MARKETS FOR TABLE OLIVES

1. Overview of the Products

Since the olive is only edible after being cured, the number of table olives products is very diverse, depending on the way which the olives have been prepared. When discussing table olives we are really talking about 5 distinct products which are sometimes interchangeable, sometimes not. The basic products are:

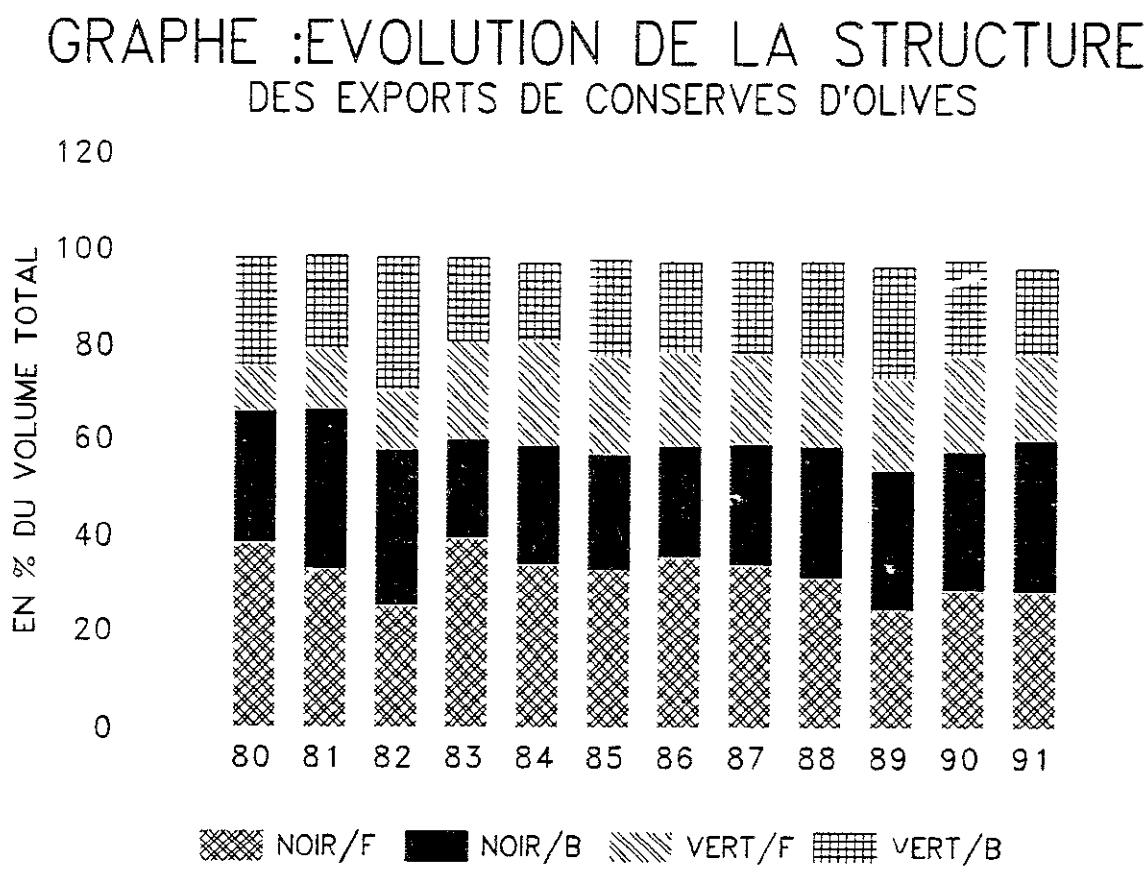
- Spanish Style green olives, which are picked green, cured, fermented, and stored in brine
- California Style black olives, which are usually picked green but sometimes as the olives are turning, are stored in brine until needed, then cured and oxidized in lye to make them black;
- Turning Olives, which have already gotten some color on the tree, but are cured, and then usually cracked and left to marinate in different solutions (lemon, pepper, etc.)
- Greek Style Black, which are picked off the tree black and are cured in acetate to remove the bitterness, then put down in salt to leach out the acetate; and
- Dry Salted Black, which are the ripest black olives picked off of the tree and are just put down in salt, with no curing needed.

Each of these styles of olive can be prepared with many small adaptations in the process which will produce different tastes (more or less bitter, more or less bland, etc.) to meet specific client tastes. The California Style Black and the Spanish Style Green are especially flexible since they are firm enough to be pitted, and then either sliced, wedged, or stuffed. Slightly broken olives or turning olives are often cracked and then marinated in lemon or pepper. The two tree ripened black olives are too soft to do any additional treatment.

Client taste profiles vary around the world, depending on the background of the consumers. For example, in the United States, the olives consumed on the West Coast are predominantly the blander California Style Black over the Spanish Style or other varieties (ratio of about 5:1). Meanwhile on the East Coast, the ethnic groups which consume lots of Olives (emigrants from Greece, Italy, and Spain) prefer the stronger taste of the Mediterranean olives to the California Style Black (ratio of 6:1).

Despite the differences in the products, the olives found in Morocco can produce any one of them. The choice of product is dictated by the time when the olive was picked and its condition at arrival in the factory (its color or softness). An interesting contrast between

Table IV Evolution of Table Olive Exports (by color and package)



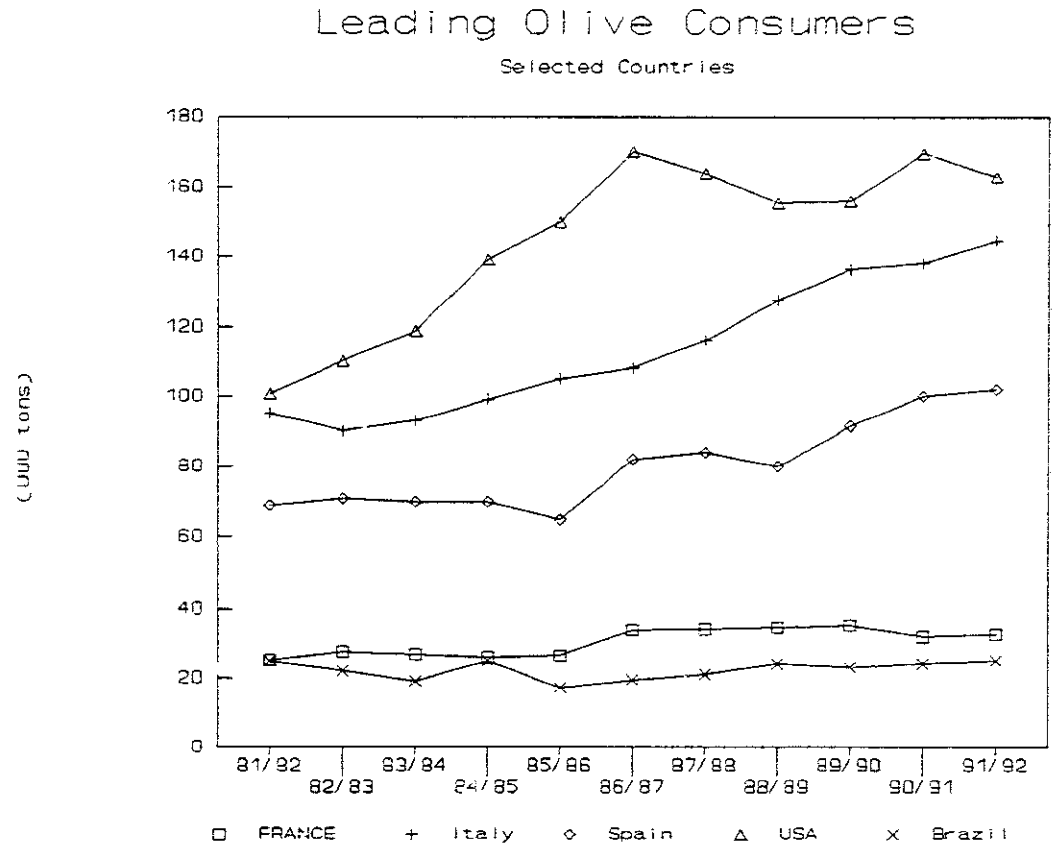
production in Morocco, Spain and the United States production is the degree of specialization. In the U.S. 99% of all olives produced are the California Style Black, and 95% of those are pitted. Meanwhile, Spain concentrates primarily on the Spanish Style Green, with only a limited production of California style black olives, and then mainly for export. Morocco does not specialize, but produces whatever the world market orders. This flexibility allows them to market more olives, but adds increased complexity and cost to their production and marketing systems (see chapter IV).

The Moroccan customs nomenclature does not differentiate between the three kinds of black olives, it considers them all the same, so it is impossible to get an accurate split between these very different products. The Table Four shows how the Moroccan products have flowed between green and black, and between bulk and cans.

2. World Market

Global consumption of table olives has been rising fairly steadily over the past few years, from about 700,000 tons in 1983-84 to an estimated 927,000 tons in 1991-92. The countries with the highest per capita consumption of olives are in the Mediterranean basin (Italy, Spain, Greece, Turkey, and Morocco), which are the traditional producer countries.

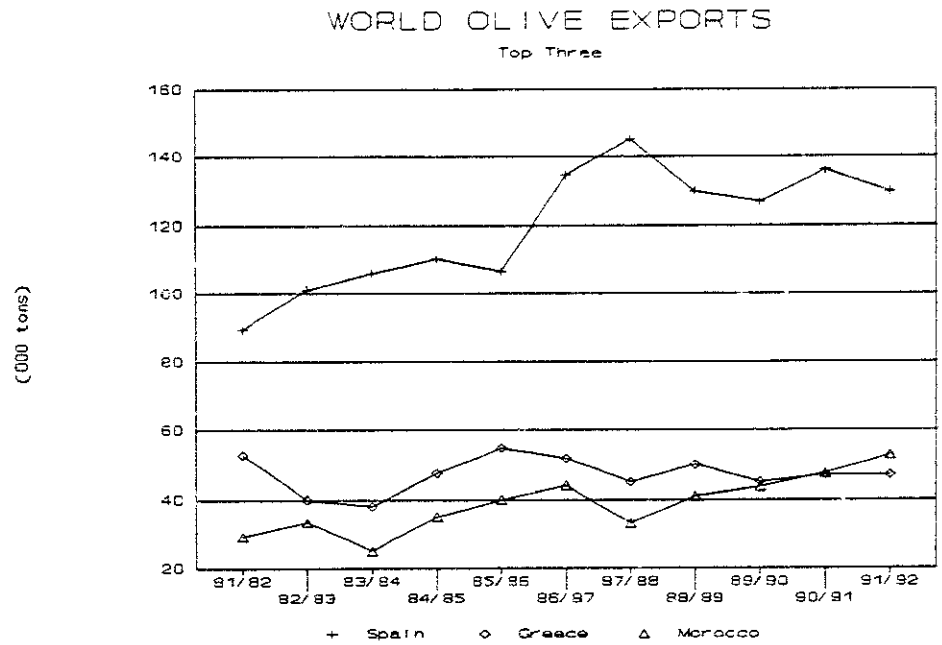
Table V: Leading Table Olive Consuming Countries



In addition to the Mediterranean basin countries, Table Five shows that the United States is the leading total consumer of olives with about 160,000 tons/year and Brazil and Argentina also consume important quantities. The large ethnic ties between the Iberian Peninsula and South America are important factors in this consumption pattern.

Of the amount consumed in 1991-92, about 270,000 tons, or roughly 25%, was traded. In general the largest consuming countries are also the largest producers. However, only a few countries produce significantly more olives than they consume. Table six quantifies the leading exporting countries. Spain is by far the leading exporter, with about 140,000 tons, followed traditionally by Greece, with about 50,000 tons. In the last few

Table VI Leading Exporters of Table Olives



years, improved marketing and commercial ties have brought Morocco into a virtual tie with Greece for the second place on the list of world exporters. Turkey, which is the third or fourth largest producer in the world, is also the fourth largest consumer, so has just a slight surplus each year for export.

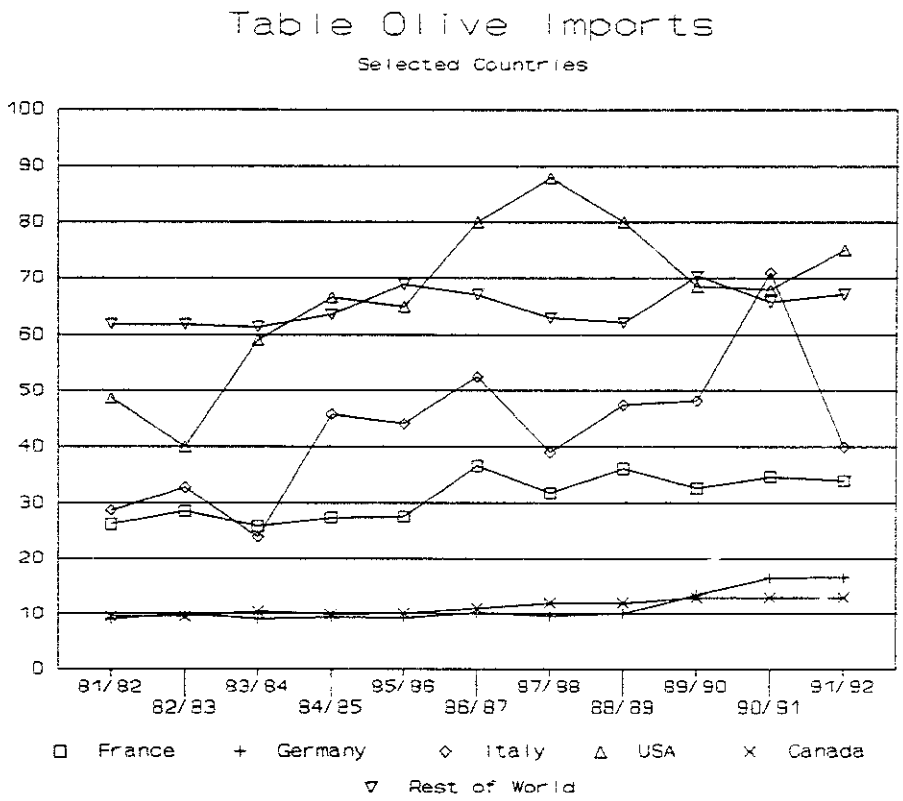
Table seven shows the trends in the major importing countries which are the United States with around 70,000 to 80,000 tons, Italy with 40-50,000 tons, France with about 35,000 tons[4], and Brazil with 23,000 tons. Imports by other countries in the world (led by Canada and Germany in the low teens) total about another 70,000 tons. The first two of these countries import to supplement already significant local production, whereas Brazil and France produce virtually no olives. France actually re-exports about 5,000 tons of olives to other European markets, primarily Germany.

3. Morocco's Markets

Currently, France is Morocco's principal market. Eighty percent of Morocco's exports go to France (37,000 tons out of 47,000 tons in 1990/91 and 34,000 tons out of 53,000 in 1991/92), and this percentage has been on the rise, as exports to France increased faster than to the rest of the world through 1990, as shown in table eight. Italy, the United States, and Germany are next in order of importance, but together they account for only about 25% of exports, as depicted in the table nine, below, comparing the exports to France with those to the next five leading countries. The rest of the exports are split between dozens of countries.

[4] French customs data report 42,000 tons of imports in contrast to the World Olive Council.

Table VII Major Table Olive Importing Countries



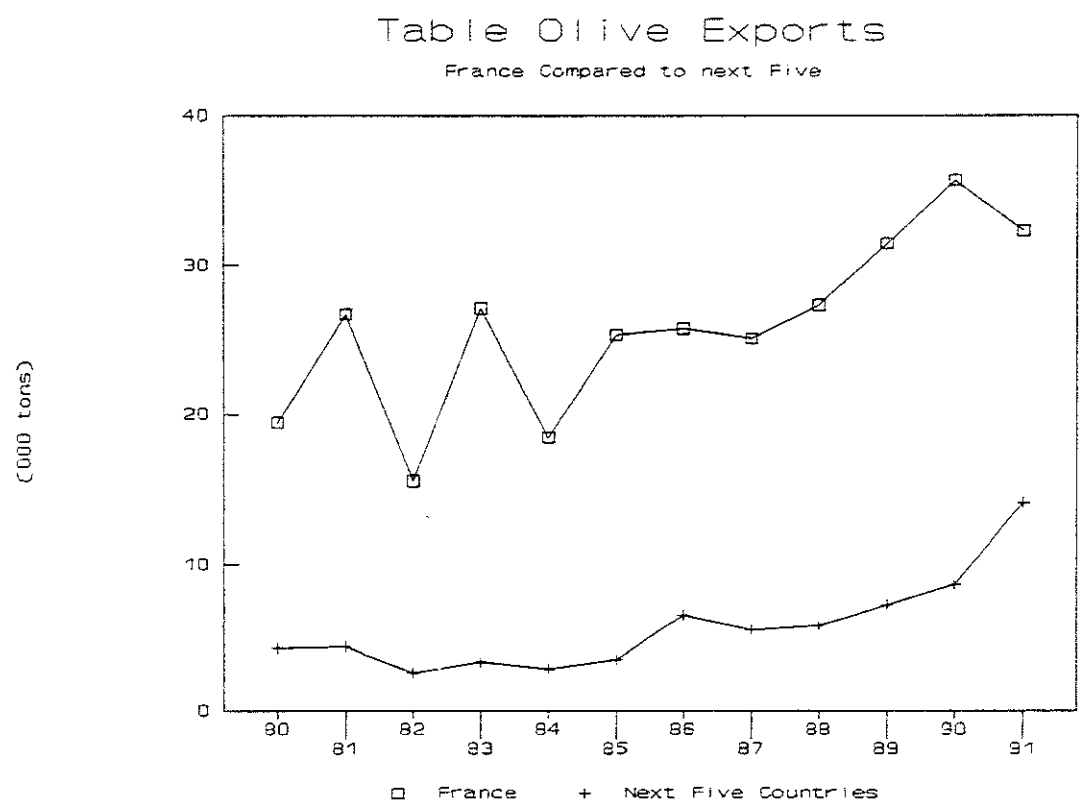
There has been a gradual trend towards increased export of canned over bulk olives. Traditionally, exports in bulk have dominated exports in cans, but over the last five years, there has been a gradual upswing in exports in cans so that now they are approximately the same. Since the price of canned olives over bulk olives has become significantly higher over the last few years (see table ten, below) this means that greater value added is being captured in Morocco, as can be seen in the comparison between tons exported and the value of the exports. Even held constant for changes in the value of the Dirham relative to the French Franc, the value of Morocco's exports has increased more rapidly than the volume.

a. <u>France</u>

As noted above, exports to France now account for 80% of Moroccan exports. The distribution of products exported to France is displayed in annex 1 (a). It shows that the French import and consume primarily the green olives. Exports to France have been increasing, but Morocco now accounts for 80% of all imports into France, followed by Spain which accounts for about 18%. France does do some re-export of olives, about 4,600 tons in 1991. It is very likely that the majority of these olives probably come from Morocco in bulk and are then packaged and re-exported to other countries.

From the general statistics on French imports and Exports, provided in Annex 1 (d), we note a few important elements:

Table VIII Moroccan Markets: France vs Rest of World



- The value of Moroccan product into France is much lower in value than the next three importers: Moroccan olives averaged 6.4 FF/kg in 1991, while Spanish olives averaged 12.24 ff/kg, Greek olives averaged 13.6 ff/kg, and Tunisian olives averaged over 10 ff/kg.

- Imports of Spanish olives were up in 1991 over 1990, but still well below the quantities from 1989 and 1988.

- Germany received about half of total French exports in 1991, 2245 tons, but the average value was 9.5 ff/kg. Assuming that Moroccan olives are being imported in bulk and reprocessed, this implies a 50% value added in France for exports to Germany.

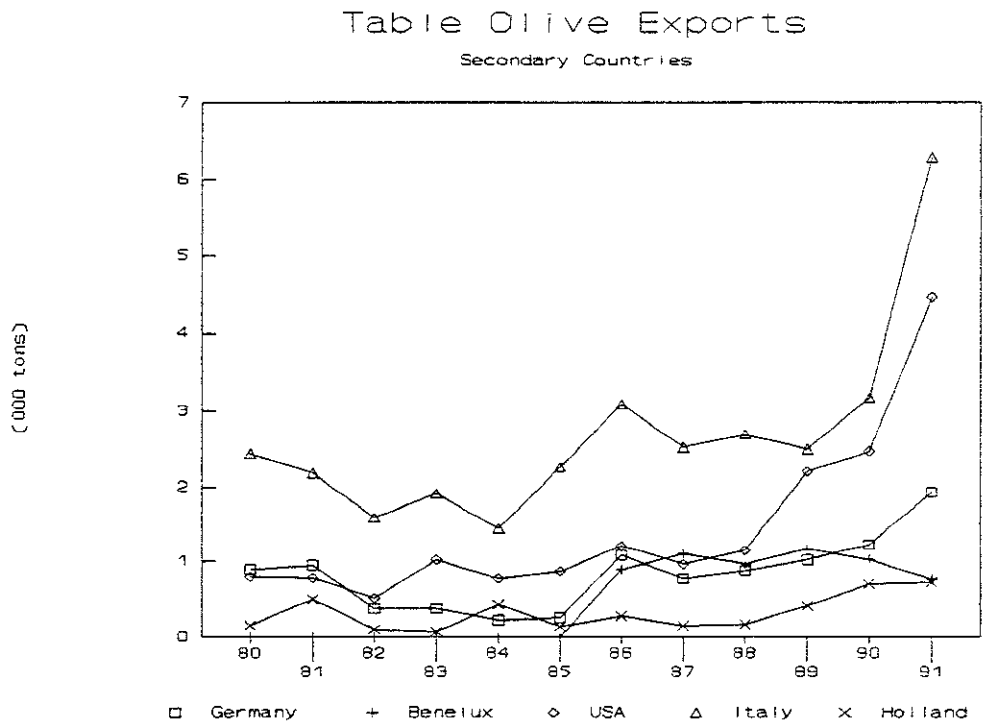
b. Italy

Though Italy is one of the major olive producing countries, it is also one of the largest importers. Italians consume on the order of 140,000 tons of olives per year, but must import 40-50,000 tons per year to supplement their local production. Of this figure, Morocco has been providing about 3,500 tons/year or just under 10 percent. In 1991, this figure increased significantly to 6,000 tons, which still accounted for only 16% of imports.

The Italian import and distribution networks are most likely dominated by the local processors, who are already packing over 100,000 tons of olives a year. Moroccan exports to Italy are mostly in bulk (see annex 1 (a)), which are then repackaged in Italy. In this respect, Morocco's ties with Italy probably resemble the old French distribution networks, which were dominated by the old processors who moved from Algeria and Morocco back to France. Increases in market share in Italy will most likely come from closer relationships with these producer/distributors in the near future.

Italy imports about equal quantities of olives from both Spain and Greece. The table below depicts Italian imports over the 12 month period between November 1, 1991 and October 31, 1992.

Table IX Major Moroccan Table Olive Export Markets, other than France

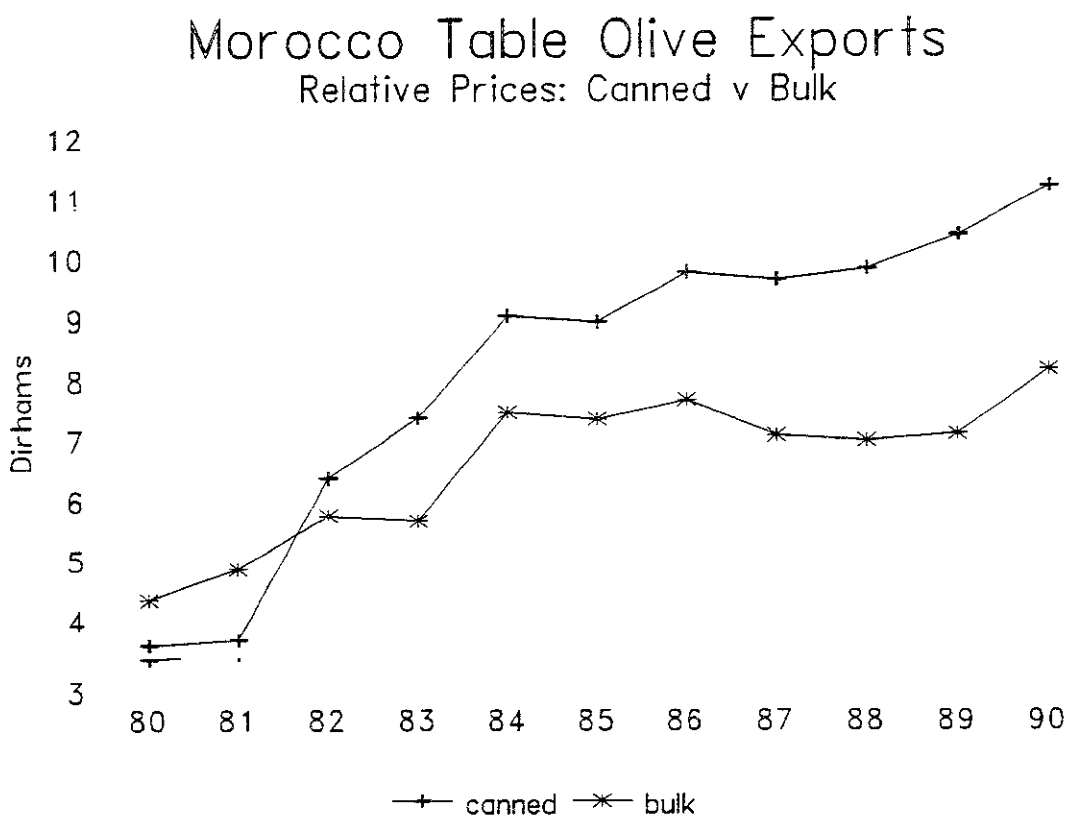


Principal Italian Suppliers

Country	Tons Imported	Value/kg
Spain	23,368 tons	1.35 ECU
Greece	22,719	1.55 ECU
Morocco	2,934	1.10 ECU

Source: Eurostat

Table X Relative Prices for Canned vs. Bulk Table Olive Exports



These accounted for 90 percent of Italian imports. During that same period, Morocco provided nearly 3,000 tons (source Eurostat).

c. United States

The United States is the single largest importer in the world, importing between 40,000 and 60,000 tons of olives per year. The majority of this has been in the Spanish Style Green olive, though Morocco's exports to the U.S. have been primarily California Style Black for the food service industry, primarily for pizzas.

Annex 6 of this report provides a closer look at the U.S. market, its size, some of the characteristics, and trends. Morocco's exports to the U.S. have been increasing steadily, reaching 6,000 tons in 1992[5], valued at $9 million, up 2,000 tons from 1991. However, one important point is the perception of the Moroccan product on the U.S. market: it is perceived as being of variable quality and the Moroccan exporters as being undependable. Because of this, Moroccan product must often be priced at a severe discount on the U.S. market in order to compete with U.S. and Spanish product. The table in annex 1(a) shows the trends and nature of Morocco's exports to the U.S. over the past ten years.

[5] U.S. Department of Agriculture, January, 1993.

d. Germany

This is still a relatively small market for Moroccan products at 2000 tons in 1991, but it holds promise for increases in the future. The table in annex 1 (a) shows that most olives to Germany are shipped in cans, with a very heavy preference for black olives.

According to Eurostat, Germany imported 15,765 tons of olives over the 12 month period from November 1, 1991 to October 31, 1992, shown below. It is important to note the great disparity in prices between the suppliers.

Principal German Suppliers:

Country	Tons Imported	Value/kg
Spain	5,438 tons	2.13 ECU
Greece	3,426	2.07 ECU
Turkey	2,846	1.41 ECU
France	1,762	1.47 ECU
Morocco	1,322	0.87 ECU

Source: Eurostat

Unfortunately, these figures do not reveal the nature of the packaging nor the kinds of olives which were exported. The figures do reveal the main competitors on the German market, however. As noted above in the French section, most of the French exports to Germany are probably of Moroccan origin.

B. OLIVE OIL MARKETS

This section describes the markets for Moroccan olive oil. The first part deals with the local olive oil market in Morocco. It includes the market for packaged oil and bulk oil. The main operators and types of transactions are described. Three major constraints were identified during the survey: the variability of supply, late harvests, and fraud on bulk oil.

The second section deals with export markets. It briefly summarizes the characteristics of Moroccan exports and analyses strategies picked out during discussions with operators.

1. Olive Oil Markets in Morocco

The local market consumes an important quantity of the Moroccan olive oil production. On average, this consumption amounts to approximately 40,000 tons of oil per year. Two main markets can be distinguished, in which we find companies of different structures:

- the packaged oil market,
- the bulk oil market.

According to estimates from the FAO survey in 1988, the quantity of packaged oil amounts to 15,000 tons per year and the consumption of bulk oil, mainly produced by traditional pressers (see the section below on the Mâasras) reaches 25,000 tons.

Taking into account an annual production of around 42,000 tons, the local market consumes nearly all the available production.

The Moroccan olive oil market has functioned in almost continuous autarchy since the beginning of the eighties (with the exception of 1990). The ruling prices reflect the balance between a variable supply and demand within Morocco, in the absence of direct State intervention.

a. The market for retail packaged oil

The quantities produced, nearly all destined for the local market, are estimated at 15,000 tons.[6] The companies operating in this sector are generally large and well-structured: 'Les Huileries de Meknès', 'les Huileries du Souss', la SIMOO, la SIOF, 'les Huileries du Gharb', Lesieur and Cristal. All (with the exception of SIMOO) also refine unrefined seed-oil.

i. Competition and market share

These companies produce, under their own brand names, products of different characteristics:[7]

- extra-virgin (BAB MANSOUR for example)
- semi-fine (OUAZZANIA for example)
- fine (LESIEUR or CRISTAL)
- lampant (MABROUKA for example)
- mixtures of pumice oil/lampant/.. (TAGINE)

According to the 1988 survey, lampant and semi-fine oils represent 62% and 19% of quantities packaged. Extra and fine quality oils however, only represent 18% of the market.

The distribution per type of packaging was as follows in 1988, expressed in percentage of tonnage produced:

- 1 liter plastic bottle: 54%
- 1/2 liter plastic bottle: 18%
- 5 liter plastic bottle: 15%

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[6] see the "Commercialization and Transformation of olives" from the FAO/MOR survey 86.001 This tonnage corresponds with a good olive harvest and an overall olive oil production of 18 000 tons in the industrial sector and 25 000 tons in the artisanal sector).

[7] see annex for definition of products.

The market shares of these companies vary from year to year but some emerge as the leaders as they possess particular assets. A quick survey carried out for the purpose of this project revealed certain of these assets. Thus, the three most important companies processed, in 1988, 81% of tonnage produced. These are 'les Huileries du Souss', 'les Huileries de Meknès' and SIMOO.

Since then, Lesieur and Cristal (part of the same group - ONA) have joined the other three to divide the domestic market for packaged oil according to obvious regional considerations: SIMOO in the North, 'Huileries du Souss' in the South, 'Huileries de Meknes' and Lesieur Cristal in the center and along the Atlantic coast.

However, besides transport hazards, each of these companies has its own specific competitive advantages:

- "les Huileries de Meknès" are the only ones to process pumice oil,
- "les Huileries du Souss" have a very efficient sales network in the southern regions,
- the SIMOO is very well situated in terms of supply and has adopted an advanced integration strategy,
- Lesieur and Cristal have the advantages of storage and financial capacity which assures them competitive supplies.

ii. Consumer prices

Consumer prices reflect the variation in prices of the raw material, except for certain brands of extra-virgin that are subject to a bonus.

Price of olive oil

LAMPANT OIL	18.2 to 19.2 DH
FINE	19.3 to 19.6 DH
EXTRA VIRGIN	19.8 to 23.2 DH

in DH/1 liter bottle in Rabat - January 1993

We note that there is relatively very little price difference between low-quality lampant oils that cost less to produce but are preferred on the local market, and extra-virgin oil that costs 5 to 10% more to produce, but has little demand on the local market. This narrow price margin explains why Moroccan packagers prefer to sell a lesser quality oil, rather than paying bonus' and encouraging a better quality production. This preference on

the part of packagers illustrates their strategy to produce and sell for the local market, rather than producing a higher quality oil for export. The impact of this strategy for the local market is to decrease the quality of oil which is available for export.[8]

b. The bulk oil market

In the bulk oil market, we must distinguish between oils destined for self consumption, pressed in small rural and urban mills and stored by the consumers, and bulk oils that come from the pressers and are sold to small traders. The quantities produced by small artisanal mills, Maâsras, amounted to 25,000 tons. The quantities sold by the pressers are estimated at 2000 tons.

In this latter sector, price and quality variations are considerable and satisfy different criteria to those established by the packaging industry: origin, taste,... [9]

2. Export Markets for Olive Oil

Exports of Moroccan olive oil have been very small, except for the past few years. For this reason, we will first of all examine the situation on world markets which will help us understand the situation of Moroccan exports.

a. World Markets

The following table illustrates the world situation of olive oil imports. This graph clearly shows that the EEC receives the majority of olive oil exports, prior to re-exporting.

i. Imports

It is useful to observe the evolution of world imports. Figure three gives a good illustration of the pre-eminence of EEC imports on the world market. The majority of olive oil exchanges take place within the EEC and are negotiated at prices that are far removed from world market prices (see Chapter Five). Within the EEC, Italy is the largest importer of olive oil, absorbing most of the Tunisian production, followed by Spain.

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[8] One of the large companies produced 700 tons of fine and extra virgin quality oil in 1991-92, but only managed to sell 60 tons on the local market. They stored the remainder for the purpose of mixing it with other oils to reduce their acidity and turn them into lampant oil, where they could get a higher price rather than export it.

[9] The pressing units approached in the survey declared that they sold part of their production directly to the consumer : between 0 and 10%.

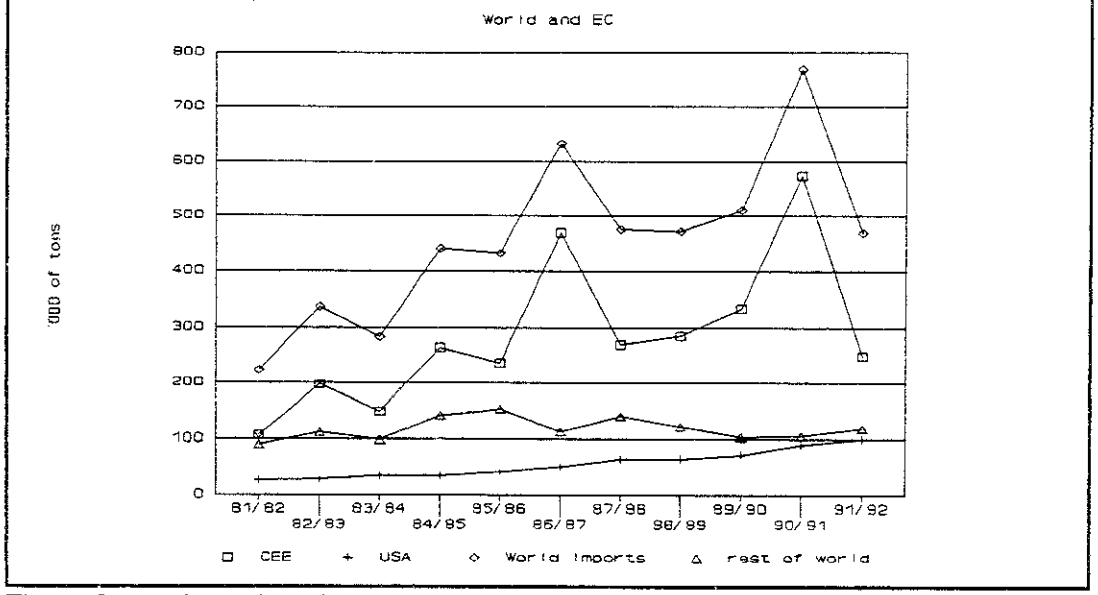

Figure 3 Leading Olive Oil Importers by Region

The second salient point is the small amount of imports outside the EEC. Indeed, the only important clients are the USA and, to a small extent, Brazil and Australia.

ii. Exports

Being the main producer and having particularly efficient mechanisms for export promotion (see the discussion of EEC price subsidies in Chapter Five), it is normal that the EEC should be the principal supplier to the rest of the world. Their exports include inter-Community exports which explains their high level. Tunisia is the main exporter outside the EEC and Morocco represents very little on this market (figure four).

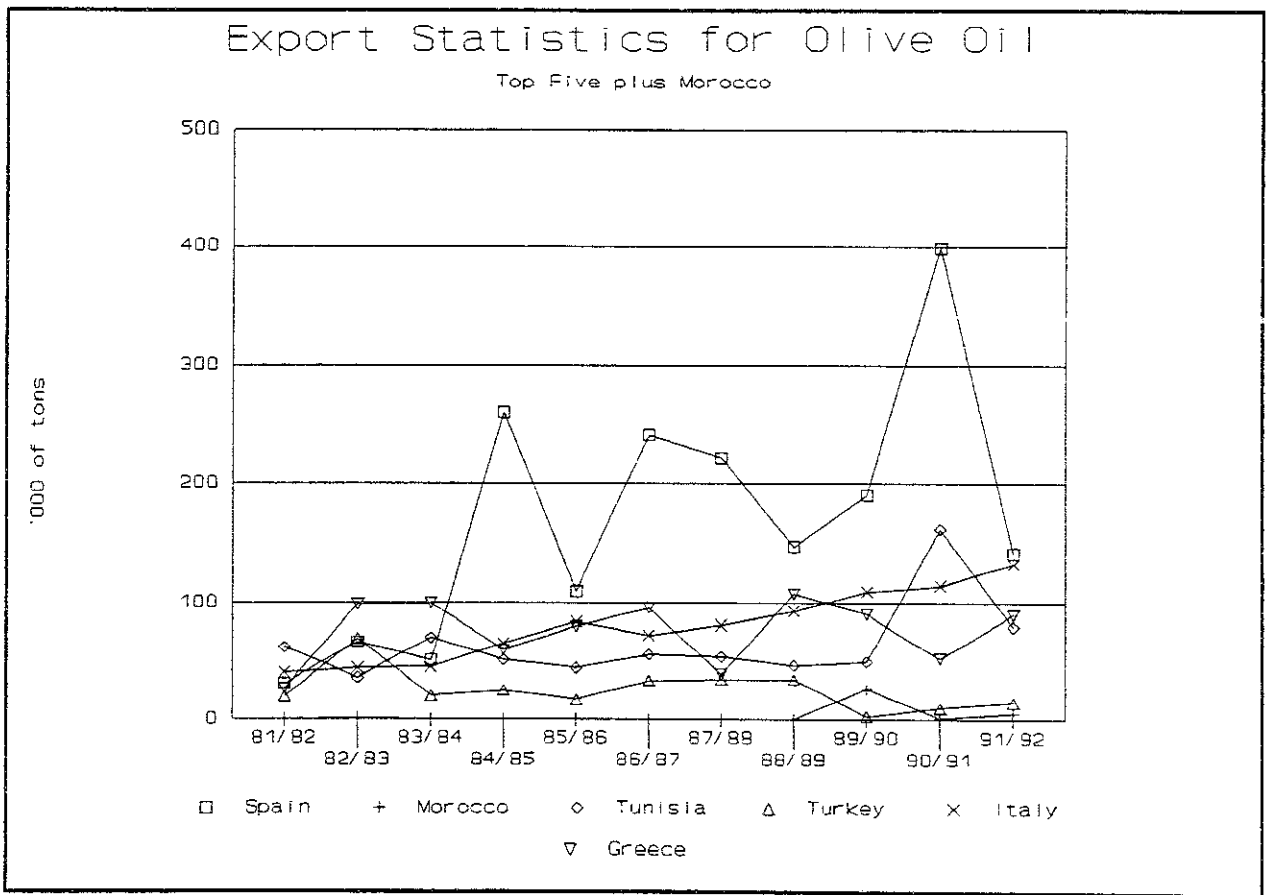

Figure 4 Leading Olive Oil Exporting Countries

b. Moroccan Exports

Realizing that exports of Moroccan olive oil around the world are minimal, we can now examine them in more detail. Exports of Moroccan oil have been irregular since the mid-seventies, due to low production and a relatively high local consumption. With the exception of the years 76, 77, 79, 89 and 90, they did not reach significant volumes. The only important export year was 1990, when Morocco had its best olive yield of the past twenty years, depicted in figure five.

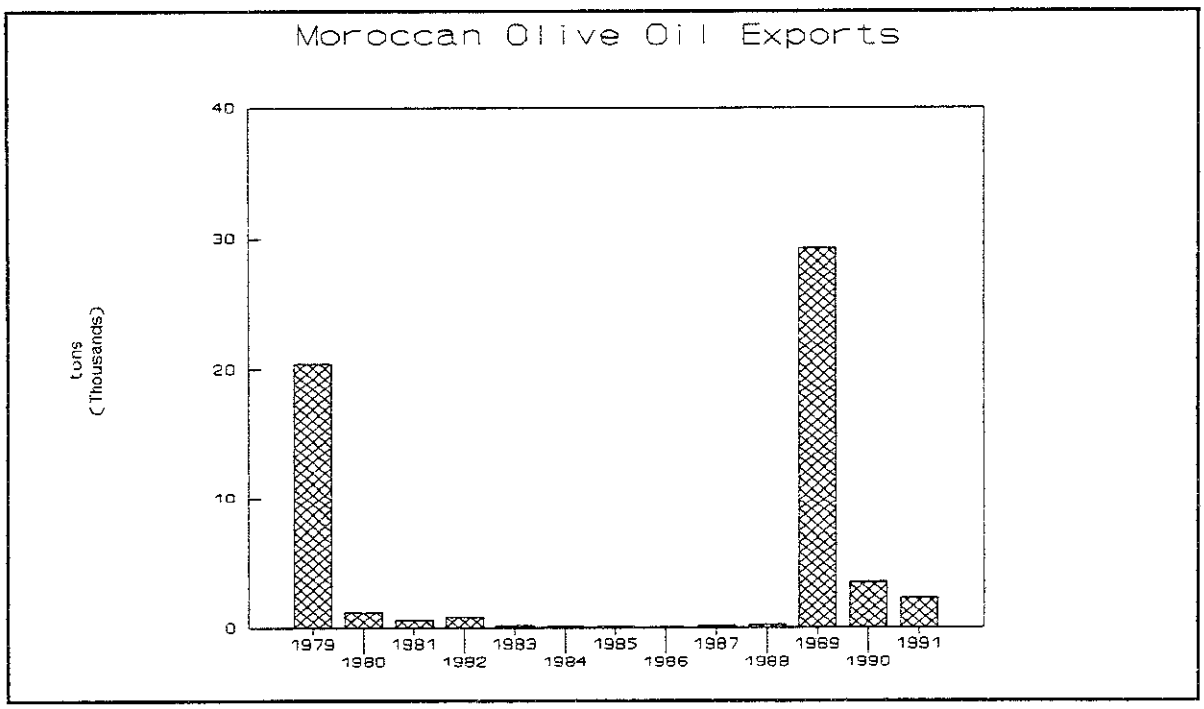

Figure 5 Moroccan Olive oil Exports

The majority of Morocco's exports are lampant oil (high acidity) in bulk form, accounting for three-quarters of the whole.

Italy is Morocco's main traditional client followed by other European countries. As seen above, the Italians are the most important importers. The USA were Morocco's main client in 1991.

On the international market therefore, Morocco has the position of a small occasional exporter of lampant oil, towards traditional EEC markets. The fundamental reason for this position is that, during the eighties, Moroccan oil prices became less competitive. The Figure six represents the COI data which estimate an average world price, including all types of packaging, using effective quotations and statistics from the 'Direction de la Statistique', for lampant olive oil packaged in one-liter bottles in Casablanca.

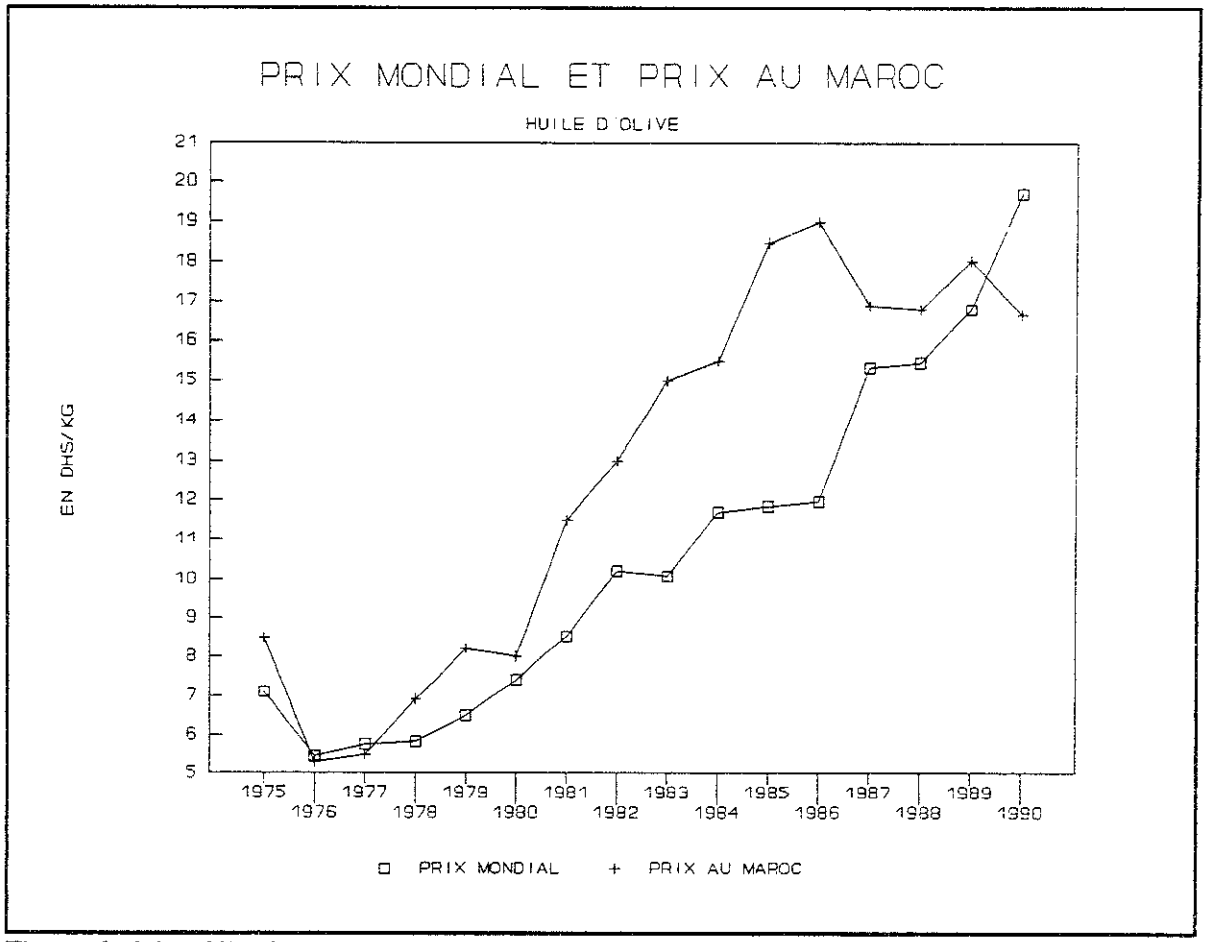

Figure 6 Olive Oil Prices: Morocco vs. World Market

3. Export Strategies

The investigations carried out within the project have brought to light three export strategies followed by the manufacturers in this sector:[10]

- exports destined for Moroccan emigrants
- exports destined for European packagers,
- exports destined for the American market.

a. Exports destined for Moroccan emigrants

These are principally made by a company integrating pressing and packaging, that sells a brand well-known on the local market. This export strategy is distinguished by the following factors:

[10] One company can combine the three

- the sale of a packaged product to a clientele familiar with the brand,
- the use of a particular distribution network: the Moroccan grocer settled in Europe, especially in Belgium and Holland, where many emigrants from the North of Morocco live, familiar with this brand.

b. Exports destined for European packagers

These are either made by (1) certain "modern" oil-producers in the Fés region, or (2) by large oil refining and packaging companies in Morocco.

Exports are made in bulk, via a commercial network established long ago, where trust between partners plays an essential role. These exports are of an occasional nature, occurring particularly in periods of local surplus. When the local market can absorb these quantities, these exports disappear.

On this market, the large Moroccan companies essentially play an intermediary role, buying oil from producers who do not have the necessary logistics or finance to export.

c. Exports destined for the American market

These exclusively concern the large companies and only began as a result of recent American trade missions to Morocco in 1990. The commercial arrangements agreed upon and tested by the Moroccan operators at this stage, are exclusively destined for one importer/packager. One company plans to try selling extra-virgin olive oil, packaged under its own brand name.

III. SUBSECTOR MAPS

The Subsector Map is a tool to facilitate the analysis of the dynamics of the subsector. The underlying concept is to diagram the flow of the product from raw material to the end consumer, differentiating the major channels through which it flows. The map identifies the major markets at the top of the chart and defines the different functions necessary to get the product from the raw material stage to those markets. The channels are differentiated by processing technology, marketing characteristics, or distribution networks and markets served.

This description will highlight the key constraining factors to, and opportunities for the growth of the subsector. The principal factors to look for are technical efficiency, market efficiency, and points of leverage (either geographic or institutional) which can be tapped to improve the functioning of the overall subsector.

A. THE TABLE OLIVE MAP

The major functions in the Table Olive Subsector, depicted along the vertical axis of the map on the following page, are the production, harvest, collect/transport to the factory, processing, and marketing (either local or for export) of the olives.

1. The Channels

Table olives flow through three main channels to reach the markets described in section III A. above. Channel One is the artisanal/home preparation channel, Channel Two is the semi-industrial channel, and Channel Three is the higher quality production for export.

Channel One, the artisanal production, is completely different from channels two and three. In channel one, the home preparation of olives is done on a small scale, using olives grown by the artisanal processors themselves, or purchased from neighbors. The quantities are quite small, per individual processor, but there are thousands of them across the country so their quantities reach fairly large proportions.

Channel Two is the semi-industrial and low quality industrial production. This channel comprises about 30 olive processing units and accounts for about 10-15% of the total Moroccan export (the exact numbers vary every year). They don't have reliable export links for their product and the bulk of their production is now sold on the local market. The size of this channel, in absolute numbers of firms, is probably decreasing terms of the number of firms present (there were more than 60 firms in this channel 4 years ago) and the amount of product moving through the channel.

Channel Three is the high quality for export channel with well established export markets. This is the dominant channel in table olives and accounts for an increasing percentage of the exports from Morocco as well as total production, even though the number of firms is quite small. This channel comprises from 10-12 plants, most of which are new,

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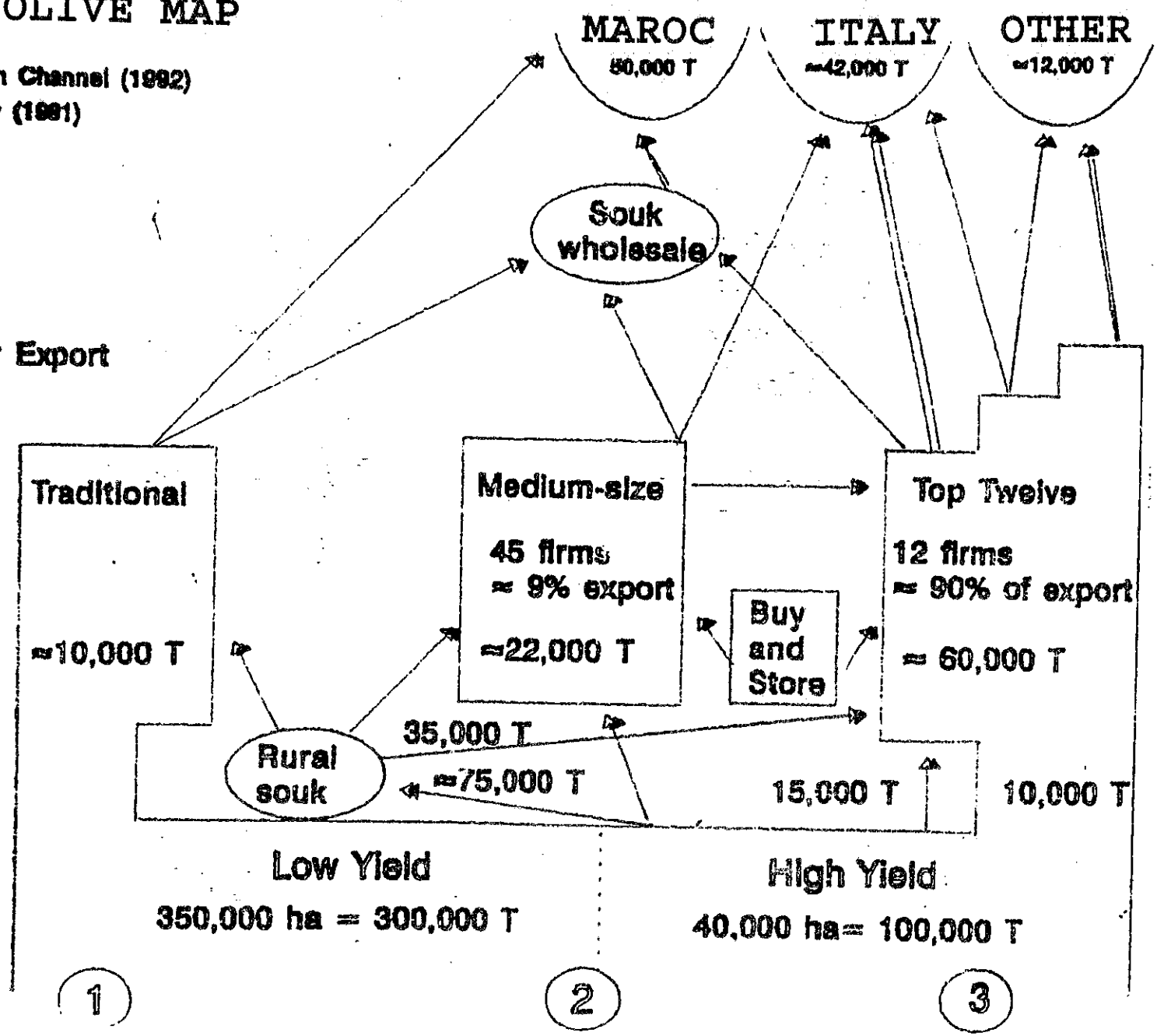


have new equipment, or are in the process of building completely new plants (many in the new industrial zone of Marrakech). These companies target the export market and only sell their second and third quality products, those which are not exportable, on the local market.

Within Channel Three, we can separate two firms from the rest. These two firms have the highest production and the best processing facilities. They account for 50% of Morocco's total olive exports. They also have well integrated joint ventures which seek to maximize profitability between European and Moroccan divisions.

2. Product Flow

The Map on the following page shows the approximate quantity of product which flows through the Channels Two and Three into the markets. These figures are approximate, but reflect the order of magnitude within the sector.

We note in particular the very high concentration of exports through channel 3, accounting for over 80% of exports. The firms in Channel Three focus on exports, but probably 20% of their production goes into the local market. The firms in Channel three normally procure their own olives, fresh, for processing, however if they are unable to meet their export orders late in the season they will procure olives from intermediaries who have put them down in brine or from bulk producers in channel 2.

Costs of production

Annex 5a provides some figures on cost of production by the processing firms. The figures are very approximate, but they demonstrate that the cost of the fruit and the packaging materials are by far the most expensive elements in the end price of the product in the factory, accounting for 45.6% and 36.7 % respectively. It was not possible to get comparative cost information between the channels two and three, though the cost of production should be lower in channel two, since the equipment is completely depreciated. Most new investment is going into channel three.

3. Differentiating Factors and Industry Dynamics.

Since Channel Three is the channel of greatest interest to the project, we need to look more closely at some of the differences between the top and bottom end companies in this channel. The major differentiating elements between the firms are:

- the marketing linkages between the processors and the foreign markets,
- the supply linkages which exist between the producers and the processors,
- the end products,

- the operating methods within the plant, and
- the quality of the plant and equipment.

Some of the product packaged by the firms in channel three originates from firms in channel two and are processed by firms in channel three.

Marketing Linkages-Forward Integration. This is probably the greatest differentiating feature between the firms in channel two and the firms in channel three. Over the last five years, Morocco's table olive exports have increased steadily, from 33,000 tons in the 1987/88 campaign to an estimated 53,000 tons in the 1991-92 campaign. The major growth in exports over the past five years has come from a few firms who have developed regular supply relationships with the major importers in France. The top four French importers/distributors are integrating vertically back into Morocco to guarantee access to the supply they need to meet the demand. Tramier, Salle, and Delieuze have all established joint ventures with Moroccan firms. Crespo has its major processing plant in Morocco to supply their distribution circuits in France; it is wholly owned by Crespo.

The guarantee of markets from the major French importers has provided the major incentive to reinvest and expand production to date. However, the French market is approaching saturation, so it can no longer be expected to be the driving force behind growth.

Supply Linkages-Backward Integration. In both of the Channels, there is a strong dependence on intermediaries to procure the fresh fruit for canning. However, the firms in channel three are seeking to solidify their access to reliable supply of high quality. Several of the firms are integrating back into production, which can be quite profitable, earning growers up to 60,000 DH/ha planted in olive trees. Annex 3 provides a detailed description of the different kinds of intermediaries and their operating methods, along with more discussion of enterprise strategies.

The top two firms are establishing excellent client relationships with the major growers, paying them a premium to deliver a quality product directly to the factory. They are achieving this by targeting growers which can provide reasonable quantities (100 tons or more), dealing honestly with them, paying them regularly and at prices above market. This allows the processors to schedule the flow of product into the factory and decrease their dependence on the more erratic quality of the spot market.

End Products. More firms in channel two specialize in the production of olives in bulk, primarily for sale on the local market, though some can be sold to exporters for canning if they are in short supply or exported directly.

Quality of plant and equipment. The visits to the plants revealed a great diversity in the age of the plant and equipment, the layout of the plant and the maintenance of the equipment. The major problems facing most plants are overcrowding, poor product flow, and outdated equipment.

The firms in channel three are investing in new plant and equipment to resolve these problems. The new processing plants allow for plenty of room for expansion and for better product flow and much of the equipment is state-of-the-art. This latter element also presents some problems for the processors since the equipment is becoming more sophisticated, requiring better trained technicians, which do not exist in most of the plants. The lack of follow-up and maintenance from the equipment suppliers appears to be a problem.

Processing Methodology. Each plant has its own methodology for processing the products, which gives us the different tastes in the olives. However, the organization of the product flow within the plants and the cleanliness of the plants varied greatly, with important effects on the overall quality of the end product.

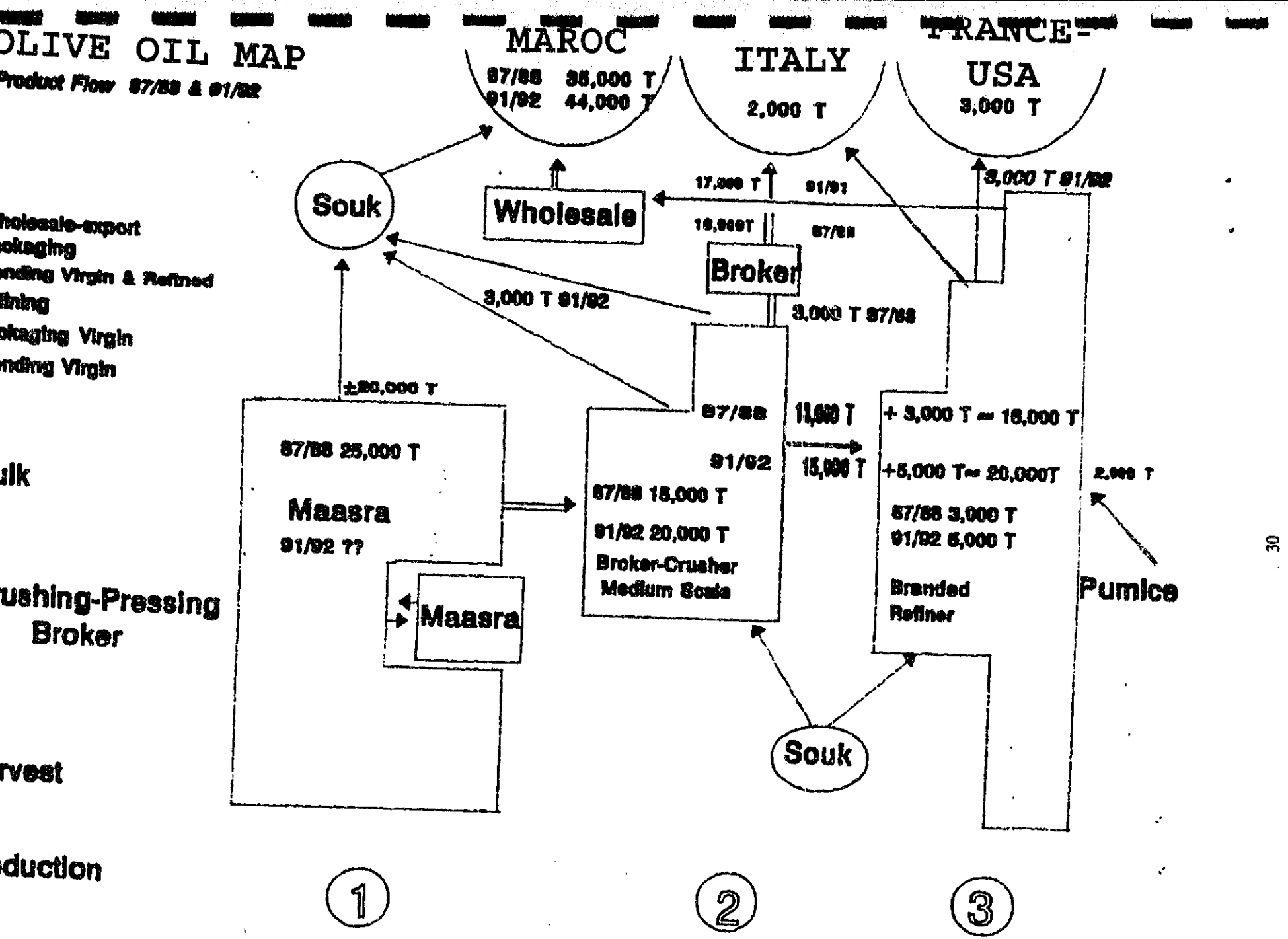
The lack of regularly applied process control by qualified technicians is an important constraint for the steady growth of exports in the future. There is almost no support from equipment manufacturers and packaging suppliers for either channel. The investment in state of the art equipment, mentioned above, can be either an asset or a liability. If the equipment works well, there is no problem. However, more sophisticated equipment requires more sophisticated handling and personnel, as well as servicing, which are generally not available in Morocco. In Europe and the United States, there are regular relations between the equipment and packaging suppliers and the processors to ensure the effective and safe use of the equipment or the safe packaging in the cans. These include after sales service, thermal process consulting/process authority work, machinery adaptation and modification, and training and re-training of personnel. This element of inter-industry collaboration is lacking in Morocco, which can hamper overall industry processing support.

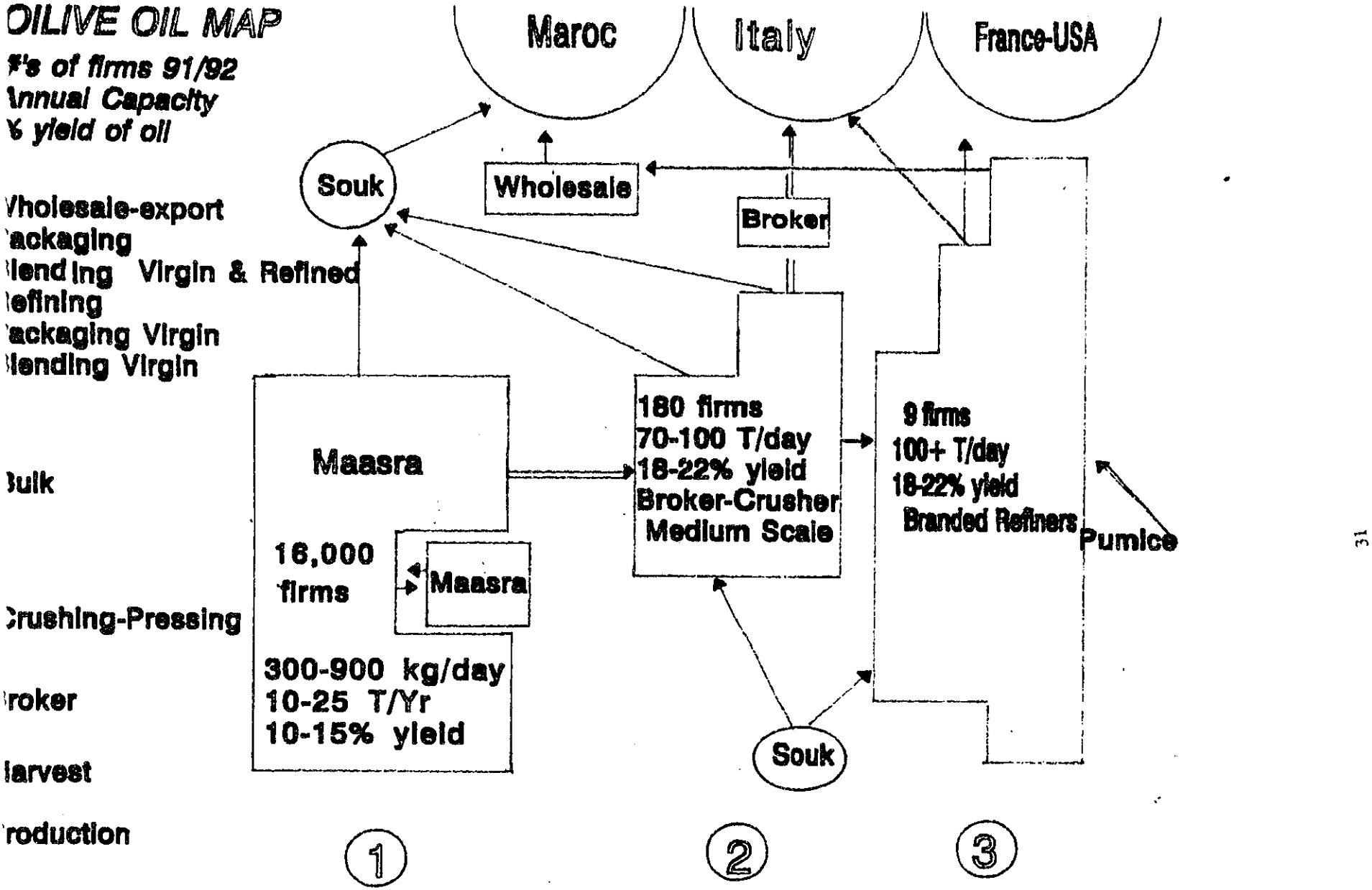
B. THE OLIVE OIL MAP

In section II B above, we had an overview of olive-oil markets in Morocco and abroad. The diagram on the following page presents the three different channels used for oil pressing and distribution, bringing the product from the fields to the consumer. These channels are distinguished either by the technology used or by the packaging and storage capacity of companies. The three channels are: (1) the Mâasra channel, (2) the pressers and distributors' channel and (3) the pressers and packagers/refiners' channel.

During the eighties, Morocco produced an average of 40,000 to 50,000 tons of olive-oil per year. The years 1989/90 and 1990/91 saw much greater production (70.000 tons in 1989/90). This production suffered a drop in 1991/92 and only yielded 50 000 tons, following many agronomic problems, in particular the lack of rainfall.

The necessary functions that lead the product from the fields to the consumer are production, harvest, collection, pressing, bulk storage, mixing (for lampant oil), storage, packaging and distribution.





1. Channel One

Channel One is above all the artisanal and traditional channel of production of olive-oil in Morocco. It comprises 16 000 traditional pressing units called "Mâasras", of which 12-15 000 operate each year. The Mâasras have an average production of 25 000 tons of olive-oil per year, that are solely consumed on the local market. The Mâasras are generally run on a small-scale, family basis. Only one or two people work on them, and animals are used to pull the grinding-stones. Very rudimentary means are used. Generally, these Mâasras are situated near the farms.

The majority of the production of the Mâasras is destined for the olive-producer himself who wants to consume the oil of his own olives. In these cases, the Mâasra plays the role of sub-contractor, doing the pressing only. As payment for the service provided, the Mâasra usually takes 20 out of 100 liters of production.

The Mâasras are near the farms and have firm control of the raw material. They generally distribute their production via the souks, by way of small dealers well established very near the farming villages.

The Mâasras' customers come from the farming villages and towns nearby, either small traders who go from souk to souk, or retail buyers who supply themselves directly from the place of production; part of the production is consumed by the owner and his family.

The Mâasras use a traditional pressing procedure: a discontinuous system where the grinding and preparation of the paste takes place in a container upon which one or two grinding-stones turn, pulled by animals. The liquids and solids are separated by a press activated by a wooden lever, the pressure is generally very low, resulting in a very low percentage of oil extraction, between 10 and 15%.

The capacity of each Mâasra is very small, around 3 quintals per day except for a few that manage to press between six and nine quintals per day. Total production is no more than 200 quintals of olives (60 days' production) which give a little more than 2 tons of oil per unit.

The olive-oil produced is called "zite beldia" (characterized by original domestic production), of the lampant type. It generally has a high acidity level, over 5%, and a limpid color. It is considered to be first-choice oil for consumption by Moroccans, particularly by peasants; it is also used for medicinal purposes.

The high acidity level is often due to the time delay between picking and pressing, bad conditions and long periods of storage (up to two months), as well as the quality of the fruit brought to be pressed.

The pumice (paste extracted after first pressing) of the Mâasras, is used for combustion, for cattle-feed, or sold for repressing to industrial oil-mills.

The selling price of the 1991 production is estimated at 12,5 DH/L, that of 1992 was sold at a slightly higher price compared with the previous year, an average price of 13 to 14 DH/L. This price increase is due to a low production because of lack of rain. Some of these Mâasras are sometimes used as supply source for medium capacity factories, in order to satisfy last-minute orders.

2. Channel Two

Channel II is particularly distinguished for its commercial aspects. Industrial pressing units buy olives that they sell in bulk after pressing, either to channel three for packaging and retail sale, or for export, or for the local market.

All these units buy from the souk, and the larger ones buy some of their olive supplies both from the independent intermediary circuit (see Annex 3) or from dependent intermediaries who buy off the tree. The average buying price for this year is around 3 to 3,5 DH/Kg of olives in 1992-93.

The larger pressing units in this channel often collect and consolidate additional oil, sometimes buying oil from Channel I or from smaller units in this same channel. They mix it with their own production and sell it to Channel III or regroup it for export during years of surplus.

In 1988, there existed about 160 mechanical pressing units with very variable capacities. In a normal year, it is estimated that 140 of these units are in operation. These include small units that only crush around fifty tons of olives per year (eight to ten tons of oil), as well as truly industrial units with average annual pressing capacities in continuous and/or discontinuous systems, limited to 2000 to 2500 tons of olive.[11] In 1988, this channel dealt with 18 000 tons of olive oil and will remain about the same for 1992.

As a rule, the pressers in Channel II produce lampant olive oil, because of limited technological skill and no price incentives. However, they can also produce a better quality oil if they desire. Industrial units, 80% of whose raw materials are guaranteed at the right time, produce extra virgin or virgin oil with low acidity (fine or semi-fine).

Most of these units have an average-size structure: they employ, on average, 15 to 20 seasonal staff of whom 5 to 10 are permanent.

i. Strategy

Most of these units remain flexible, adapting their decisions to those taken by their competitors. Rather than challenging the leaders (the large packaging units of channel III), these units have an attitude of "peaceful coexistence", consciously sharing the market. Many of them place the emphasis on profit rather than increasing market shares.

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[11] The largest units can press 150 tons olives/day, for a total of 4 500 to 6 000 tons of olives/year.

Some units are very active in the field of exports, regrouping the production of other units in this channel in order to carry out an order. These units proceed in this manner for the sake of survival only, as most of their exports are made in an unrefined state, often in bulk. This channel of industrial units uses the system of discontinuous or continuous pressing: a description of this process is given in annex 2.

The larger of these units have a fairly large storage capacity. Their extraction rate of olive oil is on average 18 to 20%, depending on whether the discontinuous or continuous system is used.

3. Channel Three

Channel III is much more integrated than Channel II. The eight to ten units in this channel all have a packaging capacity which generates a large part of their overall turnover made from seed oils, which they repackage for the local market.

These units mainly use the continuous system for pressing and possess refineries, where they also refine seed oils. The average capacity of these units stands, on average, between 5,000 and 10,000 tons/year, for a production of 1,000 to 2,000 tons of olive oil. In all, this sector presses approximately 8,000 tons. The majority of oils that they package come from Channel II, around 15 000 tons. They distribute locally directly to the wholesale or retail trade.

The different products are extra virgin and virgin oil. They are destined for a selective clientele, attracted by quality and presentation. Quality is assured thanks to better control at every stage of the pressing cycle.

These units are well structured and efficiently organized compared with those described previously. The number of employees is very high, over 50, and they usually have qualified management and technical personnel.

The production process is generally carried out in a semi-continuous way with grinding and mixing mills, and extraction made under pressure. A small minority of units are equipped with continuous centrifugal extraction lines.

Transactions are carried out on a price based on 3% acidity (maximum 5%), with an adjustable rate structure of 1% for 1%.[12] This is equivalent to a variation of the order of 0,8 DH between extra and lampant. This rate structure does not sufficiently remunerate quality (for exports it is 2 for 1) and leads to a standardization of transactions of around 3% (because of mixtures).

[12] 1% less acidity allows for a 1% bonus, 1% more acidity deserves a 1% rebate.

a. Strategic Approaches

i. Strategy of the Leader

There are a few industrial units in Channel III, representing only 6 to 8% of the overall number, that have a considerable local market share. Sales are carried out primarily in bottled form, via well-controlled distribution circuits. Generally, these units have adopted a defensive policy in order to protect their market share.

However, some of these units try to increase their market share by adopting an offensive strategy, depending on the relationship between market share and profitability (introduction of new machines to increase productivity). We also note that these units diversify their products and sometimes brand names (several brand names used by the same unit).

ii. International Markets Development Strategies

Some of the most important units have set themselves the following objectives:

- to increase potential demand, leading to an increase in production which amounts to 10 000 tons in a good season, and very good results achieved thanks to economies of scale.

- to diversify commercial risk; in this case, very few units (one or two) depend on different economic environments and have knowledge of the most favorable economic periods.

The units included in this channel are well enough organized to manage supplies destined for the "domestic" market and the "international" market. Their distribution is carried out by a subsidiary abroad, some working only through an agent; only unit has its own subsidiary in France, others having agents in France and Italy.

4. Summary of the Key Elements in Olive Oil Production

The cost analyses in annex 5b depict the approximate structure of the costs associated with producing olive oil:

Fruit	80%
Processing[13]	5%
Packaging	15%

Even if the cost of pressing the oil were to double, it is clear that the cost of the fruit is still the determining factor in the overall cost of production. Because the cost of the fruit is tied directly to the efficiency of extraction, all gains in the yield of oil related to the kilo

[13] This includes labor costs, financial charges, and depreciations

of fruit will be transmitted directly into the bottom line: profit. Therefore, investment in oil processing equipment which could improve the yield should be profitable. Investment in equipment with a higher capacity will reduce the delay between receipt of the fruit and its processing, which will lead to better quality.

As noted above, the handling of the fruit is one of the critical factors in the quality of the oil. However, it is often neglected given the actual practices for purchasing and supplying the fruit. Proper scheduling of fruit reception by the processors, as for table olives, is extremely important to press the olives in the 72 hour period after harvest, which is optimal for getting extra virgin olive oil. This will cost a little bit more in both the fruit and labor, but will provide dividends in a higher priced product. The companies in Channel III understand this and know that with a small increase in cost to follow the process more carefully, they can improve the quality of the oil.

In summary, three elements differentiate Channel II from Channel III. Their packaging capability, their national distribution networks, and their storage capability. These elements require important investments and present an important barrier to entry to any company wishing to compete on the local market. Otherwise, the two channels are largely capable of producing the same qualities of oil and in large quantities.

Any company wishing to sell olive oil on the international market over the long run must buy large amounts of oil from other producers to have the quantities necessary to meet market demands. At this point the ability to control the quality of the production becomes very important. The factors which differentiate the companies in Channel II and III favor those in Channel III to be able to develop a quality which responds to the standards of the world market, which is critical if Morocco wishes to export oil other than in bulk to Europe which is then re-exported.

IV. THE INSTITUTIONAL AND SUPPORTING ENVIRONMENT

A. INSTITUTIONAL SUPPORT

Five local and one international institutions can provide excellent support to the Moroccan table olive and olive oil industries, addressing issues from production through to the markets. The two trade associations (FICOPAM and ADEHO), the MAMVA, the export promotion agency (CMPE), the Etablissement Autonome de Contrôle et de Coordination des Exportations (EACCE) and the International Olive Council can all play fundamental roles in increasing the quantity and value of Morocco's olive exports.

1. Trade Associations

a. The Fédération des Industries de la Conserve des Produits Agricoles du Maroc "FICOPAM" is the federation of associations for the canning industry in Morocco. The "condiments" association which represents the table olive processors, is but one of the seven associations in the federation. It represents 29 companies in this group, which comprise the vast majority of the olive exporting community. As the key institution for reaching the industry to both coordinate export activities as well as to enforce better quality standards for the industry, FICOPAM can serve as an important channel for information about processing standards as well as changes in the overall environment.

The seven different associations of FICOPAM comprise a total of about 80 firms out of the 135-140 processing firms in the country, these firms represent 90 percent of total production and 95 percent of total exports. Despite their overall weight in the economy, the resources available to FICOPAM are quite limited. Membership fees are 5,000 dirhams annually for the FICOPAM, with a one time fee to belong to one or another of the associations of 2,000 dirhams, but only a small portion is actually collected.

b. The Association des Exportateurs de l'Huile d'Olive "ADEHO" is the only trade association for the olive oil processors. It has had 26 different companies as members, however at least six have stopped exporting and only about ten of the companies are active members. ADEHO has not been very active over the past few years, but may become more active as the liberalization of olive oil trade provides greater incentives to import less expensive oil and to export higher quality Moroccan oil. In addition, ADEHO is Morocco's representative to the International Olive Council and is an eye to the outside world.

It is very important to note that there is no association representing the growers or an interprofessional association or group which can facilitate the dialogue between the growers and the processors, either for oil or for table olives. This exacerbates the difficulties of developing good supplier relations between the two parties, even though this is one of the key factors for getting high quality products. While the MAMVA and the ORMVA's have tried to facilitate in different regions, they have had limited success.

2. Government of Morocco Institutions

a. The EACCE's role is critical for a successful export program. As the agency responsible for coordinating and controlling the quality of exports it helps define the regulatory environment, but then is responsible for enforcing it. It authorizes all agricultural processing plants and methods for export from Morocco. This authorization process provides it with a big stick over the private sector. It has already been carrying out an active program to force better quality into the export processing sector. This is witnessed by the reduction in numbers of plants which are eligible to export over the last several years. The EACCE will be the focal point for the new quality control efforts which will be necessary for entering the U.S. market on a successful basis.

b. The Ministry of Agriculture and Agricultural Development: The MAMVA has two programs which are of interest and importance to the olive subsector: (a) a program to increase production by distributing free plants for 15,000 hectares per year and (b) the World Bank funded olive research project in Marrakech with the Institute for National Agricultural Research (INRA). These two programs address two of the most important constraints facing the private sector: total production and the varieties available. They create some opportunities for increased effectiveness of the olive subsector.

One criticism voiced about the plant distribution program is that the plants used are purchased on an auction basis with the lowest bidder winning the contract. This does not favor the promotion of the highest performing plants, but this can be easily changed by the MAMVA.

There is also the opportunity for closer collaboration between the INRA research and the private companies which must process the olives and are in touch with the markets. The private companies should be consulted more regularly for the selection of the varieties of olives which are being planted to respond to their needs both in ease of pitting and slicing and to get their feedback on what the markets are interested in buying.

c. The Ministry of Public Works is responsible for increased irrigation, which is critical to increased olive production. It is currently carrying out a program to develop irrigation in the regions around Marrakech as part of the Haouz. It will also be working on increased irrigation for the Tadla region, already the source of Morocco's best olive production in Beni Mellal. While the irrigation efforts are not directed specifically for olive production, the overall effect is very positive.

d. The Centre Marocain pour la Promotion des Exportations (CMPE) is available to orient the table olive producers towards more lucrative and new markets. The CMPE, working with the OCE trade fair office, sponsors Moroccan participation in trade shows around the world. The CMPE actually finances a larger portion of costs for agro-industrial firms to participate in trade shows than it does for other industries, often up to 75 percent of the total cost. This is related to the overall small size of the firms in general and their limited capacity to reach outward. Given the economies of scale, the CMPE requires at least 6 companies for a trade show, and the participants from the olive sector tend to be a small component within a larger agro-industrial trade fair. Traditional fairs include SIAL in Paris, ANOUGA in Spain, Alimentariat, and Food-expo.

3. Worldwide Bodies - The International Olive Council (IOC)

The IOC is the main coordinating body for olive products worldwide. As such its interests are in promoting higher quality production and in increasing demand worldwide. Financed with contributions from the major olive producing countries it carries out numerous activities of interest to its constituents:

- It sponsors research in numerous areas of interest for both table olives and olive oil;

- it seeks to promote increased consumption of olive oil around the world, and is currently carrying out generic olive oil marketing activities in the United States and in Australia, to increase overall demand;

- it seeks to increase the overall quality of the world's production and can work directly with the oil processors to increase their technical capabilities.

- it monitors the overall state of the world's olive oil production and maintains statistical data bases on production,consumption, exports and imports, and remaining stock.

- it produces a quarterly magazine, Olivae, which presents subjects of general interest to the profession around the world.

Of direct importance to the Moroccan olive industry, the IOC can be a source of focused assistance to the Moroccan olive oil producers on ways to address the problems of quality. The resources within the IOC could also be drawn upon to make a presentation to the Moroccan table olive industry to discuss the characteristics of the olive market around the world.

B. OTHER ELEMENTS IN THE SUPPORTING ENVIRONMENT

1. Moroccan Trade Legislation

Morocco's law for external commerce has been voted, only the texts specifying its application need to be finalized. It could lead to some important changes in the olive subsector since the imports of olive oil will be entirely liberalized for the first time, with only tariff barriers to provide minimum protection from dumping.

The principal impact of this liberalization could be a stabilization in the relative price of olive oil by opening up imports from other countries. This would reduce the amount of speculation on olives, leveling out prices from year to year. Predictable prices will favor developing production from a more technical basis, leading to higher yields.

While there has been no experience in the trade liberalization to verify the probably impact, the ability of the Moroccan private sector to adapt to such opportunities is very strong.

2. Moroccan Domestic Regulations for Olive Oil

The Dahir no. 1-62-056 of June 1962 dictates that the governor of each region shall announce the opening and closing dates of each olive harvest and the oil pressing period for all commercially traded olives and oil. This governmental interjection clearly infringes on the local processors and oil pressers professional competence to carry out their jobs and has the potential for creating a negative impact on the processors.

Morocco has been regularly updating its regulations regarding the packaging and marketing of olive oil in order to improve the quality and health considerations of the product, but it has often been difficult to put these into effect. The Royal Decree of 1967 defines the different olive oil products and their modes of commercialization. Three issues arise:

- Moroccan legislation allows for the human consumption of lampant oil with acidity up to five percent. By international standards, no oil with acidity greater than three percent is considered safe for human consumption. So Morocco is actually promoting the consumption of an unhealthy product, even if it is the product of preference.

- The requirement to sell all oil in packaged containers is clearly disregarded. In fact most olive oil is traded in bulk. Packaged containers are viewed with distrust by many consumers (primarily the less literate) because they believe that the oil has been diluted with other products. Meanwhile the opposite is largely true and yet it is impossible to control unpackaged oil sales for dilutions or acidity.

- The requirement to label all olive oil following the classifications and to the specifications laid out in the decree are rarely respected and not enforced, either on the packaged olive oil or the bulk.

If Morocco is to clean up its internal market for olive oil to make it more responsive to the world market, it must seriously address these issues.

3. External World Policies

a. European Economic Community

i. Olive Oil

The EEC has many policies which both support and hurt Morocco's olive sector. Annex 7 delves into these issues more fully, but the history and main issues are laid out briefly, below.

Before the extension of EEC to Spain, Greece and Portugal, the Common Agricultural Policy (CAP) sought the increase of production of olives through support to olive producers and intervention in the olive oil market. Three prices were set:

- a guaranteed price for olive oil by the storage firms;

- an indicative market price, 20-25% above the guaranteed price; and

- a consumer price, through a subsidy to conditioners, in order to set the consumer price at 2 times the price of vegetable oil.

The direct effect of these was an increase in the olive price, leading to increases in production. On the export side, the EEC provides exporters with a restitution equal to the difference between the world market price and the internal EEC price. This allows the oil producers to export their heavily subsidized production at no loss, which puts additional downward pressure on the world markets.

When the entry of Southern Europe to EEC was negotiated, the prices were to be unified in 1995, giving a big impetus to olive oil and olive producers in Greece and Spain. This extension made the EEC self-sufficient in olive oil instead of net importer. This led to the freezing of guaranteed prices at a high level. Further reforms were introduced in order to limit the costs of CAP in this sector:

- the guaranteed prices were defined for a fixed quantity; and

- the guaranteed price was set in relation to the production (if the production is higher than maximum required to meet EEC consumption, the price for the next crop is down).

Once the spanish olive oil prices are aligned with French prices, there will be an upward pressure on olive prices and would imply EEC restitutions in order to preserve their US market for olive oil. An important question is how the restitutions could comply with Blair House accord.

ii. Table Olives.

The EEC has no policies affecting the production or export of table olives, leaving this product open to much fairer competition on the world market.

For the EEC internal markets, there is word that the EEC intends to prohibit the marketing of non hermetically sealed packaging for olives. This will have an impact on the locally mixed and packaged olives in the EEC, olives which are usually imported from Morocco in bulk (most Moroccan exports to Italy and half of the exports to France are in bulk).

iii. Net impact on Morocco.

The net effect of these two sets of policies is very favorable for Moroccan table olive production. It has put increased emphasis in the EEC on the production of olives for olive oil rather than for table olives, which has forced up the price for table olives even though they are a different variety than the oil olives. Along with the increased costs of harvesting

table olives, Europe's overall competitiveness in the table olive sector is decreasing. This portends a gradual long term shift in the EEC away from production of table olives towards olive oil. Simultaneously, the move towards hermetically sealed packages should lead to increased canning in Morocco, where it is often cheaper than in Europe.

b. United States Food and Drug Policies

The U.S. Food and Drug Administration (FDA) controls the quality of goods being imported into the U.S. All products with a PH greater than 4.6, considered low acid, will encounter the thermal processing requirements. Among Morocco's olive products, the main problem is presented for the low acid oxidized black table olive. This is the largest U.S. market and the rules require that all oxidized table olives be sterilized using FDA approved processes. This will require upgrading of both equipment and the skills and qualifications of the personnel, since the FDA approved process requires a technician trained in the "Good Processing School".

For olive oil, the United States olive oil distributors have signed a series of agreements sponsored by the IOC which more clearly define olive oil and promote more honesty in labelling of the product. This is also reflected in the new U.S. labelling laws which have just been issued.

Proper labelling will be an important element for Moroccan products, requiring accurate control of the inputs into the finished good. For Moroccan firms intending to export to the U.S., they will need a reliable importer to serve as their go-between to provide them with the proper information on labelling requirements. This will mean that more production will have to be done specifically for the U.S., making it more difficult for Morocco to use the U.S. as a spot market for its surplus production.

V. DRIVING FORCES AND POINTS OF LEVERAGE

An important step in defining a reliable program is to identify the forces which drive the industry and the points within the industry where pressure can be most efficiently applied to get wide ranging results. The driving forces define the direction which an industry is taking. They must be taken into consideration for any successful actions to be defined. They are generally production, technology, and market related, but they can quite often be determined by government policy.

The points of leverage are critical for determining the most cost effective way to address the problems and opportunities identified during the study. Working through a point of leverage allows the project to leverage its resources and reach as large a number of clients/beneficiaries as is possible. A point of leverage can be an institution which has contact with many different groups in the subsector, a point of geographic concentration which might lead to targeted interventions in that zone, or system nodes, i.e. those points in the system where all large numbers of actors funnel their activities through a few key operators. By targeting a few key leverage points, which respond to the goals of the project, the action plan can have the greatest payoff.

A. DRIVING FORCES

There are a number of driving forces in the olive subsector, some of which affect both table olives and olive oil, others which are internal to the one product or the other.

1. Driving Forces for Both Products

a. The most important factor in the olive subsector is the level of olive production. As noted in numerous places in this report, production is not sufficient to meet the potential for both table olive exports and olive oil exports. The lack of sufficient quantity of olives for regular olive oil export makes it impossible to develop a sound strategy for this product. Until there is sufficient production, there will also be some tension between olives for the table and olive oil.

b. Closely related to the first point is that olive oil prices drive the price of table olives. Since olive oil is the primary product for internal consumption in Morocco, prices have been historically based on the available supply of olives for olive oil to meet internal demand of about 40,000 tons. Therefore the price of olives for processing into table olives has been dependent on the estimated price for olives for oil (see Annex 3 for more on this issue)

c. EEC policies, reviewed in the previous section have a major impact on reducing the world price for olive oil, making Morocco non-competitive for olive oil, while increasing Morocco's competitiveness on table olives.

d. Morocco's latest move to liberalize imports of olive oil, along with all other non-strategic products, will probably have an effect of stabilizing the price of olive oil, removing much of the fluctuation and volatility of prices from year to year depending on national production. This should remove it as the price setting mechanism for table olives, as noted in (b) above, allowing the table olive processors to set their own prices based on world table olive markets.

2. Driving forces in the Olive Oil Industry

a. The local market in Morocco is the driving force for the oil producers. With local consumption absorbing close to 100% of production in an average year, the major Moroccan oil producers and bottlers produce oil for the local market. The Moroccan consumer's preference for a more acid olive oil with a sharper taste has historically dictated the quality of oil to be produced. The section on olive oil markets highlighted the minimal differentiation in prices between top of the line extra virgin oil which is more expensive to produce than the low end lampant oils. This minimal differentiation does not provide an incentive for the producers to prepare a higher quality product.

b. The EEC policies supporting olive oil production and export have put increasing quantities on the market and led to low world market prices. This has made it impossible for Morocco to profitably compete on the world market.

c. Morocco's new liberalized trade laws can have an important impact on the interest in producing a higher quality extra virgin oil for export at the expense of lower quality production for the local market, even if there is no increased production. Since the major oil producers now put the emphasis on producing for the local market, noted above, the availability of lampant oil for import at competitive prices (Tunisian lampant currently sells for one half the price of Moroccan lampant) or other higher quality virgin olive oils, will put pressure on them to produce a higher quality oil for the export market.

3. Driving Forces in the Table Olive Industry.

a. The table olive industry is driven by exports and the world market, contrary to the olive oil industry which is currently driven by the local market. This outward focus opens up many new opportunities for markets and growth but also places some constraints for varieties and styles of production.

b. Costs of Production In EEC and USA. Probably the key driving force in the industry is Morocco's competitive cost advantage over its two major competitors, Spain and Greece, and compared to U.S. production.

country	fruit	salaries
SPAIN	$1000	$13/HR
USA	$650	$15/HR
MOROCCO	$450	$1/HR

Since the cost of fruit is the single largest cost in the production (approx. 45% of the end product value in Morocco), this provides Morocco with a sizeable advantage over Spain, the world leader.

c. The financial advantages offered by the new industrial zone in Marrakech have been a driving force behind the increased investment and upgrading of the industry's plant and equipment. This is positioning Morocco for the quality upgrade necessary to hold the markets which its price can get it into.

d. Another important driving force in the industry has been the increase in joint ventures with French firms as they seek to guarantee cheap source of supply. The guaranteed outlets have also reduced the risk involved in making the investments needed to upgrade the plant and equipment. However these joint ventures are of two distinct natures: true joint ventures which seek to maximize profits for the overall company (style FRAMACO, SOMIA), or commercial linkage joint ventures where the focus is to buy into a supplier, but where the European partner still tries to maximize its profits in Europe. The latter is beneficial to a Moroccan processor, since it gives him a better link into the market, but it is not the optimal relationship.

B. POINTS OF LEVERAGE

As noted above, points of leverage may be related to geographic concentration of production, processing, or markets, institutions which work with large numbers of industry participants and define the policies which govern the industry; or system nodes, i.e. those points where large quantities of the product pass through the hands of a few participants.

1. Geographic Concentration

There are two key elements of geographic concentration of importance to the project.

a. Concentration of the high yielding olive production areas in Beni Mellal, El Kelaa, and Marrakech. Roughly 5 percent of the total acreage accounts for 30 percent of production and is concentrated in these three areas. These areas with the highest production potential will provide the greatest return on investment of effort on improving production practices and varietal trials. The concentration of the production also offers the opportunity for bringing more of the processing activities to central locations within the production areas.

b. Concentration of olive sector industries in Fés (for olive oil) and Marrakech (for table olives). The very heavy concentration of industries in these two towns makes it easier for improved processing services to be made available or to convince industry suppliers to deliver service to a broad number of actors at one time.

2. Institutional Support

As noted in section V above, there are numerous institutions which can play fundamental roles in increasing the quantity and value of Morocco's olive exports. Each agency has specific elements which it can bring to the sector.

a. FICOPAM and ADEHO are key institutions for reaching the industry to both coordinate export activities as well as to enforce better quality standards for the industry. Both associations can improve their services by mobilizing their members and can serve an important coordinating function for access to outside resources. FICOPAM can serve as an important channel for information about processing standards, general market trends, as well as changes in the overall environment. ADEHO should be concentrating on the quality issue for is Morocco's representative to the International Olive Council and is an eye to the outside world.

b. The EACCE is the single agency which is in near daily contact with all of the processing plants and can force them to change their operating methods. Proper coordination between the EACCE and the U.S. FDA can channel important information through to the private sector quickly and effectively on the EACCE has already been carrying out an active program to force better quality into the export processing sector and it will be the focal point for the new quality control efforts which will be necessary for entering the U.S. market on a successful basis.

c. The Ministry of Agriculture and Agrarian Reform. The MAMVA is a critical point of leverage for increased production. The planting program offers an excellent point of leverage for putting into production new varieties which respond to the demands of the world market and the interests of the processors. This program can be a critical point of leverage for the processors to pass information through to the growers if the coordination between the MAMVA, INRA, and the processors is established. Information on variety requirements must flow from the processors to the INRA, which will then get the new varieties to the MAMVA for distribution.

d. The International Olive Council should be the target institution to provide directly focused assistance to the Moroccan olive oil producers on ways to address the quality problems facing Morocco.

3. System Nodes

The analysis of the subsector Maps reveals a few key points for the industry where large quantities of the product passes through the a few key actors.

a. There are 2-3 key table olive exporters who dominate the industry. They are doing the research and establishing sound practices which should set the standard for the rest of the industry to follow. These firms should be the lightening rod for the rest of the industry, realizing that their expansion into the world markets can be damaged by a weak overall Moroccan reputation.

b. An important system node is the group of intermediaries who link the grower to the processor. For the very small producers this is an important link in the chain which could be used to transmit lots of information to the producers on new technologies and growing practices. Unfortunately, the interests of the intermediaries and the timing or their interventions (late in the growing season) do not necessarily promote the interests of either the grower or the processor. Large growers who have by-passed the intermediaries and sell directly to the processors are better remunerated and generally get better feedback from the processor on the quality of their harvest.

c. The EACCE is also a system node, since all export must be authorized by them. Its role is addressed above.

VI. OPPORTUNITIES AND CONSTRAINTS

A. OPPORTUNITIES

Morocco is poised to make an important jump in its exports of table olives, but not in olive oil. It is increasingly competitive on the world market, facing EEC producers with increasing costs and possible tariff barriers into the U.S., the world's largest importer. Its share of other important markets around the world is still very small. The figures below represent 1991 imports into the major markets, Morocco's existing share, and potential future increase (up to 50% of imports):

Country	Existing Moroccan Exports (tons)	Moroccan % of existing imports	Potential for Moroccan increase (tons)
FRANCE	32,000	75%	0
ITALY	6,000	16%	20,000
USA	4,000	5%	30,000
GERMANY	2,000	13%	6,000

Morocco does not face any serious non-EEC competitors which have the capacity to turn up their volume of exports in the near future the way Morocco could by drawing olives away from oil.

The major opportunities for Moroccan table olives vary by country, and individual strategies should be developed on a case by case basis. A preliminary analysis identifies the following major opportunities:

- In the U.S. the major long term growth opportunity will be to take some market share on the Spanish Style olive, the second largest category in the U.S. and which is dominated by Spanish imports (98%). Shorter term opportunities exist for increasing share of the California Style black for the foodservice industry, which is a rapid growth sector in the U.S.

- In Germany, it appears that the major growth segment is the foodservices industry, driven by the pizza and fast food industry, which has been the source of much of the growth in the U.S.

- In Italy, the marketing channels are still dominated by the traditional producers, the same as in France, and the first step will be to replace Italian imports from Greece and Spain with Moroccan product.

- While increased exports to France are not likely, on a tonnage basis, there is still significant room for improvement in the mix of product, packaging and value added. French trade figures clearly demonstrate that the average value of Moroccan imports into France (80% of total imports) was 6.5 FF in 1991, compared to 12.24 FF for Spanish olives (18%), 13.71 FF from Greece (0.6%), and 10.65 FF/kg for Tunisian olives (0.4%).

If Morocco can increase its production of olives it can develop the increased supply of olive oil necessary to become a regular exporter of olive oil on the world market. The most lucrative markets are for the specialized extra virgin oil which Moroccan tastes do not favor. However, the liberalization of the trade for olive oil, begun in January of 1993, presents the structure which might make this possible. Developing the olive oil trade is a long run objective, but will require some immediate work, as discussed below.

B. CONSTRAINTS.

The following elements are the main constraining factors to establishing a rapidly growing export industry.

1. The main factor limiting the growth of olive subsector exports, overall, is raw fruit supply. The agricultural sector is unable to grow an adequate supply of olives to meet current demand in both table olives and olive oil on a regular basis from year to year. The tension which exists between table olives and olive oil for the local market is a limiting factor for reliable increases in table olive exports. While table olive growers can usually get enough product by coming on the market earlier, it will be difficult to pursue increased table olive exports and olive oil exports simultaneously, over the short term.

2. The Moroccan Picholine (Beldi) is a polyvalent fruit - it can go for either oil or table olives. However, it is not ideal for either product. On the table olive side, there are two problems with the Beldi: the ratio of fruit to pit is lower than other varieties produced in Spain, such as the Mansanilla; and the shape of the pit makes it difficult to remove. For olive oil, it does not have as high a yield as other oil varieties.

3. Sanitary conditions and control of the process in many of the processing plants is not adequate to sustain the conditions which are required for the product to be exported on a continual basis without problem. As exports increase, greater attention will be placed on process and sanitary conditions. This may be a factor in retaining the edge necessary to enhance Morocco's position on the world markets.

4. Unreliable supplier relations. Moroccan firms have a reputation for taking orders and not delivering the product ordered or delivering it only with additional financial assistance from the importer. Importers need to have confidence in their suppliers to provide them with dependable service or they will be reluctant to use them.

5. Insufficient cost accounting systems to allow the Moroccan processors to clearly identify their costs and move into the more profitable niches. This is not an immediate concern to the industry, but as a few firms become more important exporters and will be competing more effectively on cost, they will need to have complete mastery of their accounting systems.

6. Unsophisticated marketing systems and lack of market information on distribution channels and growth segments. Morocco has been dependent on traditional supply channels for selling its product on the world market, which is probably why it has maintained and developed such good market links to France. It is difficult to get the family owned and operated firm, with a very thin management structure, to invest in the marketing systems which are necessary to compete with multinational companies.

7. In general, there is a relationship of distrust and speculation between the producers and the processors. This prevents the two critical actors from working together on research to identify the proper fruit to be grown, establishing supply relationships based on confidence.

8. Insufficient product definition can jeopardize long run growth of the export market, either to the U.S. or other European markets. Olives in tins, those with the greatest value added, are inspected into the U.S. for grade, size, quality, and maturity, and labelling.

VII. CONCLUSIONS AND RECOMMENDATIONS

VISION OF THE FUTURE

Based on the considerations above, the project should focus its attention on the table olive sector, where the most likely progress can be achieved in the short to medium term. A number of opportunities were identified above which, if achieved, will make Morocco into a much more important player in the world table olive market than it is today. However, to attain these opportunities will require a substantial change in the overall structure of the industry and the way things are currently being handled. If Morocco is to double its exports, then there is room for most firms to grow, so the majority of processing firms stand to benefit from an improved overall structure of the industry. There will also be greater positive impact for the large numbers of olive growers. There will of course be some elimination of the weaker performers, but that is a requirement if Morocco is to compete on the world market. Some of the key elements of this vision of the future are:

1. The industry will continue to grow, with room for growth in all firms in the short to medium term. In the long run there will most likely be a narrowing down of the total number of exporting firms.

2. There will be strong collaborative relations between the growers and the processors. This will be reflected in terms of direct supply contracts between the growers and the processors which reflect quality and timeliness of delivery. There will also be greater backward links into research for the varieties which best respond to the demands of the market.

3. There will be increasing yields from the existing olive groves, which will in turn lead to higher producer prices as the processors are able to reduce their costs due to increased factory throughput. Under this scenario both the processors and the growers are winners.

4. The Moroccan exporters have mastered the distribution networks in Europe and the United States and have developed good supplier relationships.

5. Moroccan product has an improved image on the world market:

- there is increased confidence in the industrial processing to deliver a reliable quality on a consistent basis;
- Moroccan exporters have developed the reputation for providing dependable service to their clients.

6. Moroccan processors will have mastered their cost accounting to know the precise costs of their operations and profitability of each product.

RECOMMENDATIONS FOR PROJECT ACTIONS

For Morocco to attain the opportunity which lies before it and reach the vision of the future, actions are required simultaneously on three fronts: increasing the production of olives, both in quantity and varieties; improving industry coordination, process and quality control; improving market reputation and understanding of the European and North American markets. The recommendations below must be clearly defined and prioritized in conjunction with the private companies in the Olive subsector around the objectives and opportunities they wish to pursue. The majority of the actions are generalized to the industry, but specific export opportunities must be addressed individually.

IMPORTANT ACTION PLAN CONSIDERATION

It is important to take into consideration that exporting is becoming increasingly complex around the world and that only a subset of the existing industry has the capacity, interest, and resources to successfully export the quantity of product with the level of quality required to effectively expand Morocco's exports. This means that to increase Morocco's olive exports, a goal which will have great impact on large numbers of growers around the country, the project will need to work with those companies which show the greatest potential for improvement. Targeting points of leverage which will generate the greatest return from limited investment may mean working with larger processing firms to reach the greatest number of beneficiaries in the industry.

A. INCREASE AND IMPROVE OLIVE PRODUCTION

While the purely agricultural side of olive production is not one of AMI's focal points, it is the major constraining factor for Morocco's olive exports in both table olives and oil.

1. Increase the productivity of the existing orchard.

Proposed Project Action:

(a) Promote increased awareness and interest on the part of the larger plantation holders (10 ha and up) on the potential profitability which could be achieved through attainable yields which are not being reached now.

(b) Develop for profit service company to help increase olive productivity. There is a large discrepancy in the potential productive capacity of the olive orchards and actual yields. A firm specializing in Olive production techniques could sell its services based on an increase in yield, an annual retainer, or other format.

2. **Diversify the mix of olives in the national orchard if the table olive is to be a product of the future.**

Proposed Project Actions:

(a) Help identify the new varieties of table olives which will respond best to the demands of potential new markets in the U.S. and Germany, working with private processors who will eventually buy and sell those olives.

(b) Help to extend information about improved varieties of olives.

(c) Improve the communications between the industrial operators and the MAMVA and INRA to ensure that their needs are incorporated into the research programs and the government incentive programs to the growers, since the processors are the market for the product.

B. IMPROVED INDUSTRIAL PRACTICES FOR TABLE OLIVE EXPORTS

1. Improve Quality of the Product, Its Standards of Identity.

The industry needs to establish its own terminology and standards for grading, quality, maturity which should be reflected back to the producers at purchase.

Proposed Project Action:

(a) Work with the Industry to bring in World Olive Council specialists or U.S. specialists to help the industry define its product in a way that is acceptable to the industry and to the producers, while remaining up to world standards.

2. Improve Plant Processing and Sanitary Conditions.

Proposed Project Actions:

(a) Organize an industry awareness trip to the U.S. to visit the U.S. trade and determine how it organizes itself and sets its own standards.

(b) Bring olive industry process specialists to work with the industry to help them identify the main problems together and develop industry standards which they will respect.

(c) Bring process specialists to do process control audits and help individual companies install and understand proper procedures for process control (particularly for oxidized black). This would be a cost sharing activity.

(d) Improve the capacity of the EACCE to understand, regulate, and enforce the standards required in the U.S. for low acid products through the USDA portion of the project.

3. Improve the Cost Accounting Techniques.

Proposed Project Action:

(a) Produce a specialized cost accounting short course for olive processing.

4. Strengthen Industry Cohesion.

The industry will need to act in concertation, not in their traditional individualized manners, if there is to be the unified approach to respecting standards and contracts which is necessary. FICOPAM can play an important role in this, but it needs additional resources which might be available from the government as the part of the 1% export tax which is currently going to IMEC. Without additional resources, FICOPAM will not be able to carry out its organizational role. Hopefully, project actions carried out with FICOPAM will lead to strengthened performance and perception of the association by its members, increasing interest in contributions.

C. IMPROVED MARKET REPUTATION AND INFORMATION FOR TABLE OLIVES

1. Improve Understanding of the Marketing Channels in Countries other than France.

This will require investigation of the market segments and distribution channels.

Proposed Project Actions:

(a) Work with the industry to clearly define the nature of the optimal market study based on their current knowledge, and then commission the study. This might mean commissioning a Nielsen market study, which will provide the retail market information, or commissioning studies of the food service industry in target countries, or of the market segments and distribution channels. This action would have to be jointly funded by the project and the industry.

(b) Organize tightly targeted seminar around the techniques and requirements needed for effective marketing of olive products in the United States.

(c) Organize and participate in Olive market trade mission to the U.S.

2. Improve the Reputation of Moroccan Product for Export.

Proposed Project Action:

(a) Develop a video oriented towards trade shows and the consuming market which concentrates on the modernity of the olive export sector in Morocco, blended with Morocco's long tradition of olive production.

3. Improve Morocco's Reputation vis-à-vis Export Reliability.

Proposed Project Action:

(a) Continue to work with FICOPAM to impress the need for industry to police itself to provide quality products for the export market, since it only takes one bad shipment to have a negative impact on Morocco's reputation at this point in time.

D. INCREASED OLIVE OIL EXPORTS

Morocco is presently a secondary exporter of olive oil and requires a vastly greater supply of olives to generate the exports needed to make it a regular world market supplier. But it also needs the standards and respect of the world market, which it does not have at the moment, even though it produces a quality product.

1. Improve the Processing Reputation and Reliability.

Proposed Project Actions:

(a) Facilitate the certification of a laboratory for controlling the quality of the oil so that it meets world standards.

(b) Organize a joint seminar on olive oil standards and processing procedures by the World Olive Council to increase the information flow on both sides.

2. Gradually Develop a few Small Brand Name Export Operations.

Proposed Project Action:

(a) Provide individualized assistance to firms to test market product in retail size.

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STATISTICAL TABLES

1. Evolution of regional areas planted, and yields from 1980/81 to 1992/93. Source: MAMVA.

2. Evolution of Olive Oil and Table Olive Exports, 1979-1991. Source: EACCE

3. Olive Production and the range of prices during the five last seasons, 1987/88-1991/92. Source: MAMVA.

4. World Table Olive Production, Consumption, Import and Export figures, 1983 - 1992. Source: International Olive Council.

5. World Olive Oil Production, Consumption, Import and Export figures, 1983 -1992. Source: International Olive Council.

6. French Table Olive Import and Export figures, 1991-1992. Source: French Customs.

7. Moroccan Table Olive Exports, by major country, 1982-1991. Source: Office des Changes.

EVOLUTION OF OLIVE PRODUCTION AREA AND YIELDS

YEARS	AREA (HA)	PRODUCTION (T)	
		OLIVES	OIL
1980-81	310,000	276,000	23,000
1981-82	310,000	300,000	30,000
1982-83	312,000	412,000	40,000
1983-84	317,000	232,000	23,000
1984-85	320,000	346,000	27,000
1985-86	322,000	368,000	30,000
1986-87	326,000	400,000	35,000
1987-88	338,000	450,000	38,000
1988-89	345,000	347,000	30,000
1989-90	350,000	600,000	75,000
1990-91	365,000	396,000	40,000
1991-92	380,000	550,000	55,000
1992-93	395,000	380,000	38,000

EVOLUTION OF OLIVE OIL AND TABLE OLIVE EXPORTS

YEARS	OLIVE OIL		TABLE OLIVES	
	QUANTITY (IN T)	VALUE (IN 1,000 DH)	QUANTITY (IN T)	VALUE (IN 1,000 DH)
1979	20,394	106,481	39,200	149,754
1980	1,261	7,435	34,873	154,113
1981	584	3,681	25,826	141,810
1982	812	8,465	35,113	222,066
1983	160	2,515	23,257	196,754
1984	100	1,600	30,445	245,890
1985	138	2,948	35,572	293,265
1986	87	1,503	36,560	219,007
1987	188	2,590	34,330	286,691
1988	205	3,755	41,670	364,693
1989	29,300	332,171	43,367	421,227
1990	3,500	43,200	50,000	512,350
1991	2,300	34,817	50,420	517,836

PRODUCTION OLEICOLES ET PRIX PRATIQUES A LA PRODUCTION DURANT LES CINQ DERNIERES CAMPAGNES 1987-88 / 1991-92

MPAGNE		1987-88	1988-89	1989-1990	1990-1991	MOYENNE	1991-9
ODUCTION TOTALE DLIVE (T)		450.000	347.000	650.000	365.000	460.000	550.000
IX /KG)	O. CONSERVE	1,50-2,5	2,20-3,0	1,20-2,5	2,50-3,5	1,85-3,00	2,00-4,00
	O. TRITURATION	1,00-1,7	2,00-2,5	1,20-1,5	1,5-2,25	1,40-2,00	1,20-2,50
H/L)	HUILE D'OLIVE	12-15	17-19	10-12	15-18	13,5-16	13-16

World Olive Oil Statistics (all 91/92 figures are estimates)

Olive Oil Statistics: Production

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
CEE	1077.6	1439.2	1288.5	1287.8	1347.3	1106.7	1729.2	1080.1	1464.6	993.7	1539.5
Maroc	18	30	21.5	27	40	35	38	30	65	36	50
Syrie	44.5	94.8	27.2	55.2	35.3	72.5	32	90	30	83	42
Tunisie	80	60	155	95	105	120	95	58	130	175	250
Turkey	55	160	40	80	70	120	55	90	35	80	60
rest of world	58.8	59.7	57.3	71.4	65.4	78.7	61.5	86.5	71.5	82.5	67.5
World totals	1333.9	1843.7	1589.5	1616.4	1663	1532.9	2010.7	1434.6	1796.1	1450.2	2009

Olive Oil Statistics: Exports

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
CEE	119.5	231.5	203.7	391.9	291.9	561.2	357.5	375.3	419.1	593.1	379.1
Maroc	0.2	0.8	0	0.1	0	0	0	0	26.5	1.5	5
Syrie	0										
Tunisie	62.1	36.1	70.7	51.3	44.4	56	54	46.5	50	161.5	80
Turkey	20	69.8	20.3	25	17.2	34	35	35	2.5	10	15
rest of world	8.5	7.2	7.8	5.7	6.9	6	6.5	13	8	9.5	14.5
Totals	210.3	345.4	302.5	474	360.4	657.2	453	469.8	506.1	775.6	493.6

Olive Oil Statistics: Imports

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
CEE	107.1	197.4	150	264.5	236.8	469.6	269.4	285.5	334.8	574.4	250.4
USA	26.8	28.8	35	35	42	51	64.5	65	72	90	100
Libya	33.2	60	40	35	50	42	58	43	5	5	10
Australia	4.5	5.5	6	6.7	6.5	7	7	9	11.5	13.5	15
Brazil	10.6	8	9	8	13.2	8	10	13	13.5	11	11
Others	41.2	38	43.1	92.5	84.7	55.8	66.5	57	73.5	75.5	83
World Total	223.4	337.7	283.1	441.7	433.2	633.4	475.4	472.5	510.3	769.4	469.4

Olive Oil Statistics: consumption

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
CEE	1243.8	1265.5	1241.2	1256.2	1289	1323.9	1374.7	1299.5	1299.7	1210.5	1248.6
USA	27.8	29.8	35	36.9	41.9	5	64.5	66	76	88	94
Libya	45.7	50	50	51	58	49	65	50	20	13.5	19
Australia	4.6	5.7	6.2	6.9	6.6	7	7	9	11.5	13.5	15
Brazil	11.1	8.4	9.5	8.4	13.3	8	10	13	13.5	11	11
Others	257.2	309.6	289.1	321.5	318.3	345.4	292.5	300	299	346.5	347.5
World Total	1590.2	1669	1631	1680.9	1727.1	1784.3	1813.7	1737.5	1719.7	1683	1735.1

Imports

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
ce	26.7	28.2	25.6	28.2	26.6	31.3	28.7	37.6	45.7	41.7	31.7
n							0.6	21.6	6	51.4	20
y	60.7	160.9	115.4	225	189.4	288.7	198.6	188.6	247.7	404.6	169
ce							20.4	1.2	5.5	36.6	0
rs	19.7	8.3	9	11.3	20.8	149.6	21.1	36.5	29.9	40.1	29.7
	107.1	197.4	150	264.5	236.8	469.6	269.4	285.5	334.8	574.4	250.4

Exports

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
n	31.2	66.9	50.9	260	109.7	240.7	221.4	146.6	190.2	398.8	141.7
y	40.5	44.4	45.2	65.6	83.6	72.5	81.2	93	109.7	114.7	132.3
ce	26.8	98.8	99.6	60	80	95.7	39	107.5	90.3	52.5	90
rs	21	21.4	8	6.3	18.6	152.3	15.9	28.2	28.9	27.1	15.1
	119.5	231.5	203.7	391.9	291.9	561.2	357.5	375.3	419.1	593.1	379.1

Production figures

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
n	297.3	666	266.5	702.7	397.2	489.8	733.7	399.4	550.8	639.4	525
y	561	368	780	322	607.4	354.6	670	361.1	578	163.3	620
ugal	22.9	78.6	8.7	43	31.5	40.8	35	22.8	41	20	40.5
ce	195	324.5	231	218	309.6	220	287	295.6	292.9	170	352
rs	1.4	2.1	2.3	2.1	1.6	1.5	3.5	1.2	1.9	1	2
	1077.6	1439.2	1288.5	1287.8	1347.3	1106.7	1729.2	1080.1	1464.6	993.7	1539.5

Consumption figures

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
n	360	360	335	360	370	377.8	420	395.9	388.1	394.1	394
y	610	626	640	631.6	640	670	680	630	626	540	570
ugal	38.6	39.9	34	40.8	32.2	36.1	35	35	34.5	27	34
ce	205	205	200	190	210	200	200	200	205	200	200
ce	23.7	26.9	24	25	26.5	27	26.5	24.2	27	28	28
any	2.8	3.8	4	4.9	5.6	7.1	4.8	6	8.5	10.3	10.5
rs	3.7	3.9	4.2	3.9	4.7	5.9	8.4	8.4	10.6	11.1	12.1
	1243.8	1265.5	1241.2	1256.2	1289	1323.9	1374.7	1299.5	1299.7	1210.5	1248.6

TABLE OLIVES (all 91/9^ figures are estimates)

Table Olive Statistics: Production

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Spain	160	180	165	205	160	224.4	231.7	180	284	230	227
Italy	61.3	62	77.7	49.4	60	64.5	75	79.5	122.1	44.5	130
Greece	76	97	70	80	90	80	60	85	70	70	85
Maroc	43.7	56.3	40	48	60	70	70	70	80	80	80
USA	38.6	101.6	59.5	79.5	82.8	96	60	76.5	106.5	114	57
Turkey	90	160	85	95	120	115	95	110	80	150	11[illegible]
Others	179.4	186.5	173	208.7	208	258	209.3	232.3	211	258.5	225
World Totals	649	843.4	670.2	765.6	780.8	907.9	801	833.3	953.6	947	917

Table Olive Statistics: Imports

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
France	26.2	28.5	25.8	27.4	27.5	36.6	31.8	36.1	32.7	34.7	34
Germany	9	9.9	9	9.3	9.2	10.2	9.5	10	13.5	16.4	16.5
Italie	28.7	32.8	23.8	45.8	44.1	52.6	39	47.5	48.2	71	40
Brazil	24	21	18	25	16	18	20	23	22	23.5	24
USA	48.6	40	59.1	66.6	65	80	88	80	68.5	68	75
Canada	9.5	9.5	10.4	9.9	10	11	12	12	13	13	13
Rest of World	61.9	61.9	61.4	63.6	68.9	67.1	63	62.1	70.3	65.9	67.2
World Totals	207.9	203.6	207.5	247.6	240.7	275.5	263.3	270.7	268.2	292.5	269.7

Table Olive Statistics: Exports

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Spain	89.3	101.1	105.8	110	106.5	134.8	145	130	127	136.1	130
Maroc	29.1	33.3	25	35	40	44	33	41	43.5	47.5	53
Greece	53	40	38	47.5	55	52	45	50	45	47	47
Turkey	5.5	12	6	5	5	9	8	6	2	8	12
Others	39	34.9	27.1	33.8	29.9	30.8	31.9	34.5	35	38.4	35.8
World Total	215.9	221.3	201.9	231.3	236.4	270.6	262.9	261.5	252.5	277	277.8

Table Olive Statistics: Consumption

	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
France	25.2	27.5	26.8	25.9	26.5	33.8	34.1	34.5	35.1	31.7	32.5
Italy	95	90	93	99	105	108	116.2	127.5	136.2	138	144.5
Greece	21	28	26	30	40	35	30	35	35	33	33
Spain	69	71	70	70	65	82	84	80	91.3	100	102
USA	100.6	110	118.8	139	150	170	164	155.5	156	169.5	163
Canada	9.5	9.5	10.4	9.9	10	11	12	12	13	13	13
Turkey	110.5	128	109	95	100	108.5	95	110	90	110	100
Australia	5.4	5.4	5.2	5.2	5	9	6.5	8	7.5	7.5	8
Brazil	25	22	19	25	17	19.5	21	24	23	24	25
Others	230.9	232.7	230.7	263.3	270.7	300.1	289.7	291.7	308.7	311.2	306.6
World Total	692.1	724.1	708.9	762.3	789.2	876.9	852.5	878.2	895.8	937.9	927.6

FRANCE : IMPORTATIONS
DE JANVIER A DECEMBRE ... en TONNES

	1991	1990	1989	1988
TOUS PAYS	42771	44325	43461	41250
C E E A 12	8133	7727	9097	9342
AUT.EUR.OCCI	38	11	94	91
EUROPE EST	0	0	0	0
MAGHREB	34519	36489	34177	31736
AUT.AF.NORD	0	0	0	0
AF.SUD SAHAR	0	0	0	0
AMER. NORD	0	0	0	0
AM CENT SUD	0	0	0	0
PROCH.ORIENT	46	37	54	31
ASIE AUTRE	9	10	7	6
OCEANIE	0	0	0	0
MAROC	34250	36297	33992	31309
ESPAGNE	7656	6481	8091	8288
GRECE	255	337	495	320
PORTUGAL	192	767	465	64
TUNISIE	171	192	184	217
ALGERIE	97	0	0	209
TURQUIE	38	11	94	91
LIBAN	38	32	42	26
LIBRE PRATIQ	23	48	30	33
ITALIE	19	93	22	83
U.E.B.L.	9	22	20	8
ISRAEL	7	4	12	4
CHINE	4	7	2	1
ALLEMAGNE	2	22	0	0
THAILANDE	1	0	2	1
TAIWAN	1	0	0	0
HONG KONG	1	2	2	2
SINGAPOUR	0	0	0	0

*** FIN *** Source : CFCE Export Agro-Stat d'apres douanes

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OLIVES	FRANCE : IMPORTATIONS DE JANVIER A DECEMBRE ... en 1000 FRF			
	1991	1990	1989	1988
TOUS PAYS	324988	322486	307439	257926
C E E A 12	99183	85630	83423	88522
AUT.EUR.OCCI	434	158	931	730
EUROPE EST	0	0	0	0
MAGHREB	224467	235800	221688	168014
AUT.AF.NORD	0	0	0	0
AF.SUB SAHAR	0	0	0	0
AMER. NORD	0	0	0	0
AM CENT SUD	0	0	0	0
PROCH.ORIENT	424	316	614	250
ASIE AUTRE	186	119	91	75
OCEANIE	0	0	0	0
MAROC	222119	234009	219865	165011
ESPAGNE	93748	76219	75280	80509
GRECE	3498	3350	4059	3443
TUNISIE	1821	1791	1823	1785
PORTUGAL	1594	4914	3327	3479
ALGERIE	527	0	0	1218
TURQUIE	434	158	931	730
LIBAN	363	237	369	210
LIBRE PRATIQ	294	463	692	335
ITALIE	246	664	425	960
CHINE	75	87	33	28
U.E.B.L.	74	321	284	123
TAIWAN	64	0	0	0
ISRAEL	61	79	245	40
HONG KONG	24	27	31	30
ALLEMAGNE	23	125	0	8
THAILANDE	17	5	27	17
SINGAPOUR	6	0	0	0

*** FIN *** Source : CFCE Export Agro-Stat d'apres douanes

FRANCE

FRANCE : EXPORTATIONS

OLIVES — DE JANVIER A DECEMBRE ... en 1000 FRF

	1991	1990	1989	1988
TOUS PAYS	53556	53426	46807	36972
C E E A 12	38516	37051	29703	23[illegible]91
AUT.EUR.OCCI	6369	5555	3809	3[illegible]49
EUROPE EST	328	8	23	33
MAGHREB	100	668	528	4
AUT.AF.NORD	0	0	0	0
AF.SUB SAHAR	3170	5446	6983	5060
AMER. NORD	2220	2306	2173	1497
AM CENT SUD	1131	1480	2178	2036
PROCH.ORIENT	367	36	272	51
ASIE AUTRE	347	226	382	342
OCEANIE	939	650	856	897
ALLEMAGNE	21260	21836	16839	14019
ITALIE	6921	6397	6119	4483
SUISSE	5131	3463	3364	2817
U.E.B.L.	4524	4054	3508	2[illegible]32
PAYS-BAS	2237	2485	1360	1341
ETATS UNIS	2167	2298	2151	1456
ROY.UNI	1970	1481	1428	751
REUNION	1367	1928	2599	1736
DANEMARK	1096	454	243	271
AUTRICHE	558	281	129	234
COTE IVOIRE	532	771	894	465
GUADELOUPE	501	777	960	961
ESPAGNE	491	344	128	4[illegible]5
CALEDONIE	405	258	491	450
GUYANE	370	291	441	342
ARABIE	367	0	85	13
POL.FRANCAIS	295	198	288	342
TURQUIE	283	1392	0	0
AUSTRALIE	239	160	65	91
MARTINIQUE	234	367	718	694
JAPON	198	154	183	105
TCHECOSLOVAQ	197	8	19	33
ANGOLA	177	159	106	35
GABON	148	489	500	443
SENEGAL	147	191	306	225
NORVEGE	132	178	120	15
POLOGNE	131	0	0	0
NIGERIA	124	88	134	19
TOGO	122	180	367	282
CAMEROUN	112	412	676	494
CONGO	111	108	133	107
THAILANDE	104	72	80	114
SUEDE	103	18	6	11

Source : CFCE Export Agro-Stat d'apres douanes FRANCE

OLIVES	FRANCE : EXPORTATIONS DE JANVIER A DECEMBRE ... en 1000 FRF			
	1991	1990	1989	1988
MALTE	102	175	140	69
MAROC	100	668	528	6
PAYS NDA	69	0	0	9
BURKINA-FASS	63	148	156	221
BENIN	59	86	129	42
ANDORRE	46	18	16	3
CANADA	40	8	17	15
MALI	37	52	36	69
MAURITANIE	36	61	23	40
MADAGASCAR	35	72	41	22
DJIBOUTI	33	90	132	176
MAURICE	27	206	109	187
ANT.NEERLAN.	26	45	50	28
NIGER	23	85	304	116
SINGAPOUR	21	0	0	3
GIBRALTAR	14	0	0	0
HONG KONG	14	0	5	32
SAINT PIERRE	13	0	5	24
CENTRAFRICAI	10	152	85	139
PHILIPPINES	10	0	0	6
GRECE	9	0	49	4
PORTUGAL	8	0	3	0
MAYOTTE	7	0	17	21
TCHAD	0	27	27	65
GAMBIE	0	13	8	5
GUINEE	0	122	107	145
SIERRA LEONE	0	6	0	3
VANUATU	0	34	11	14

Source : CFCE Export Agro-Stat d'apres douanes FRANCE

OLIVES	FRANCE : EXPORTATIONS DE JANVIER A DECEMBRE ... en TONNES			
	1991	1990	1989	1988
TOUS PAYS	4621	5033	4963	3254
C E E A 12	3403	3495	2815	2198
AUT.EUR.OCCI	462	492	298	220
EUROPE EST	24	0	0	1
MAGHREB	15	118	684	0
AUT.AF.NORD	0	0	0	0
AF.SUB SAHAR	348	601	767	476
AMER. NORD	117	118	102	72
AM CENT SUD	81	121	168	164
PROCH.ORIENT	37	7	12	2
ASIE AUTRE	21	13	26	26
OCEANIE	97	64	87	91
ALLEMAGNE	2245	2386	1806	1419
ITALIE	416	438	404	351
U.E.B.L.	368	331	316	219
SUISSE	343	250	264	197
REUNION	165	227	329	167
ROY.UNI	140	122	178	58
PAYS-BAS	130	151	73	30
ETATS UNIS	116	118	102	69
DANEMARK	76	31	10	10
COTE IVOIRE	71	91	98	39
AUTRICHE	45	23	9	15
CALEDONIE	42	23	51	47
GUADELOUPE	38	69	86	74
ARABIE	37	0	5	0
TURQUIE	34	186	0	0
POL.FRANCAIS	30	22	31	37
AUSTRALIE	25	16	4	5
ESPAGNE	23	34	19	58
GUYANE	23	19	30	27
MARTINIQUE	19	30	48	60
TCHECOSLOVAQ	15	0	0	1
MAROC	15	118	684	0
SENEGAL	15	25	34	29
SUEDE	14	0	0	0
NIGERIA	12	9	14	1
TOGO	11	18	39	22
CAMEROUN	11	50	74	47
GABON	10	51	52	40
PAYS NDA	10	0	0	0
SINGAPOUR	9	0	0	0
NORVEGE	8	13	9	0
POLOGNE	8	0	0	0
ANGOLA	8	6	5	3
BURKINA-FASS	7	19	13	15
CONGO	7	8	14	9

Source : CFCE Export Agro-Stat d'apres douanes FRANCE

FRANCE : EXPORTATIONS

OLIVES — DE JANVIER A DECEMBRE ... en TONNES

	1991	1990	1989	1988
ANDORRE	6	1	2	0
BENIN	6	7	7	3
JAPON	6	9	7	10
MALTE	5	16	9	5
MADAGASCAR	4	8	4	1
THAILANDE	4	4	2	6
MAURITANIE	3	2	0	1
DJIBOUTI	3	8	12	14
MAURICE	3	24	16	23
GIBRALTAR	2	0	0	0
MALI	2	4	2	3
NIGER	1	9	24	10
CANADA	1	0	0	0
ANT.NEERLAN.	1	2	2	1
HONG KONG	1	0	0	2
GRECE	0	0	4	0
PORTUGAL	0	0	0	0
TCHAD	0	1	2	5
GAMBIE	0	1	0	0
GUINEE	0	9	6	13
SIERRA LEONE	0	0	0	0
CENTRAFRICAI	0	13	6	12
MAYOTTE	0	0	1	2
SAINT PIERRE	0	0	0	2
PHILIPPINES	0	0	0	0
VANUATU	0	2	0	1

Source : CFCE Export Agro-Stat d'après douanes FRANC

Table Olive Exports to France

By Variety and Package

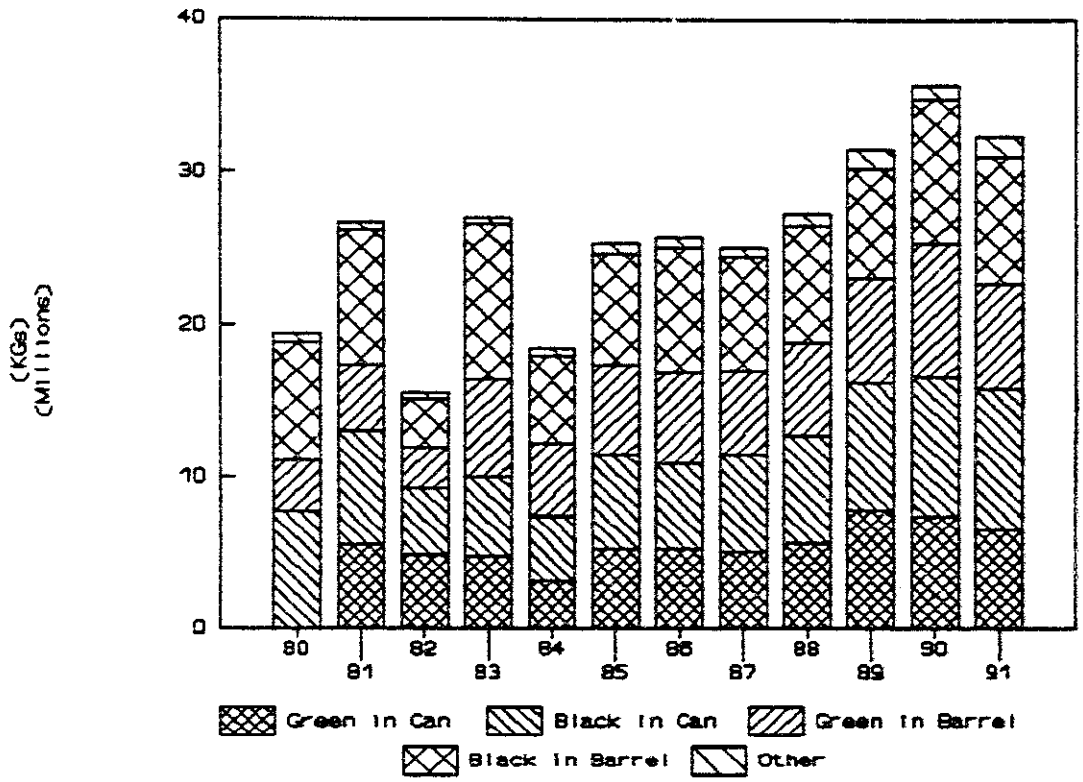


Table Olive Exports to USA

By Variety and Package

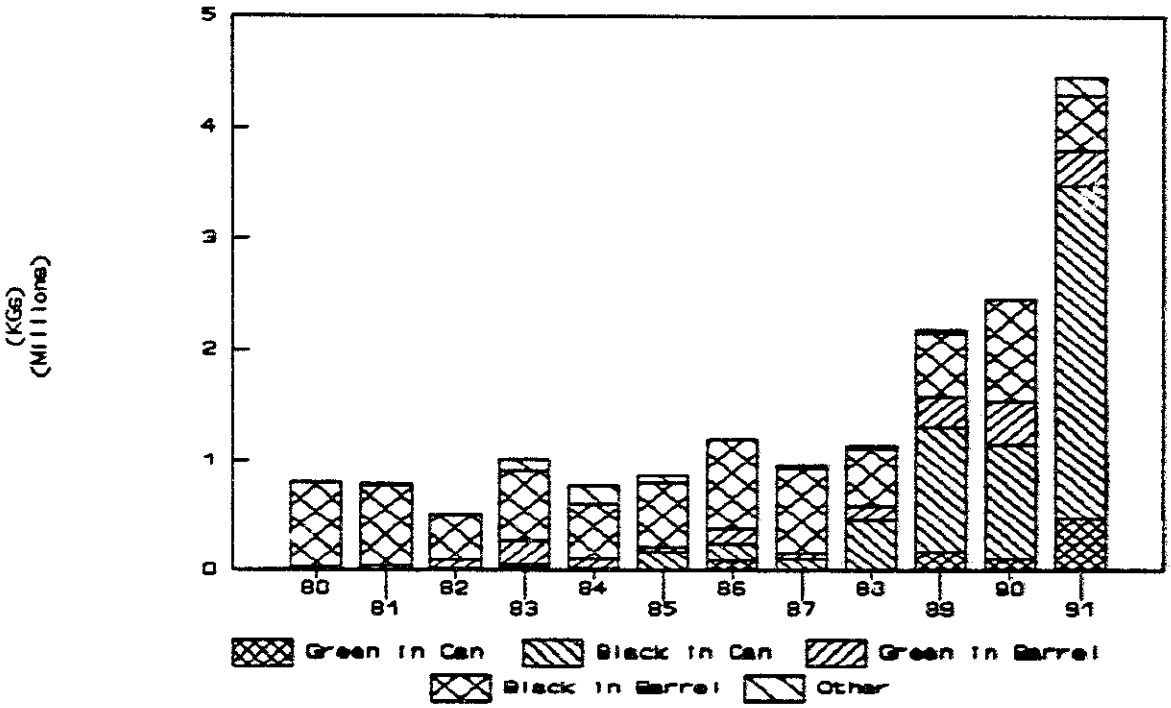


Table Olive Exports to ITALY

By Variety and Package

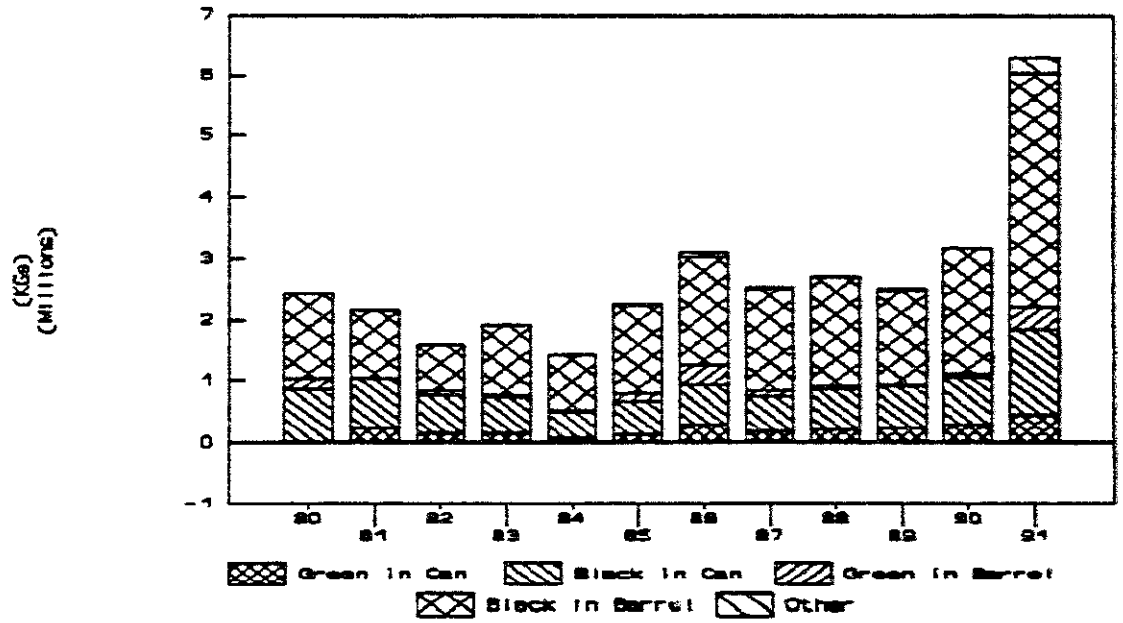


Table Olive Exports to Germany

By Variety and Package

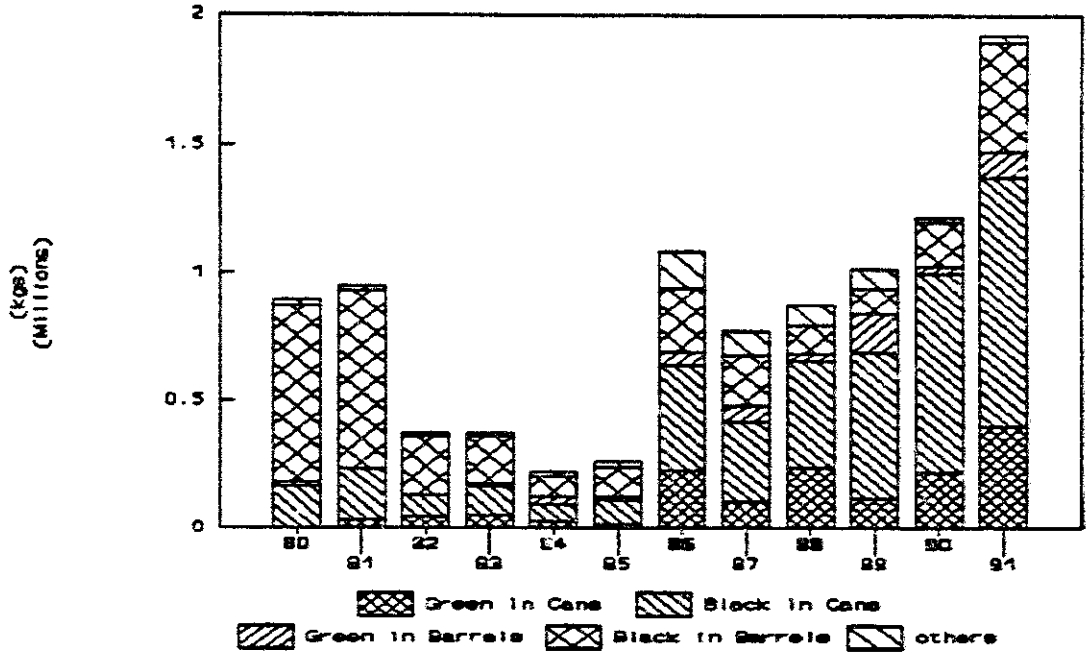
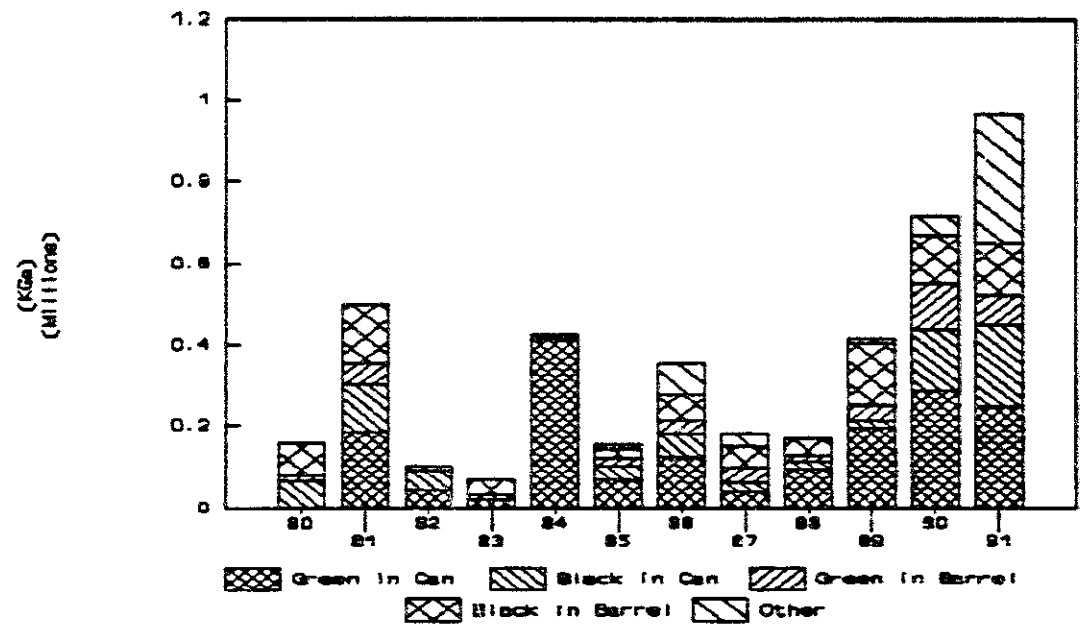


Table Olive Exports to the Netherlands

By Variety and Package



ANNEXE 2

DEFINITION DES PRODUITS ET LEUR MÉTHODES DE PRÉPARATION

I. Huile D'Olive

Catégorization

L'huile d'olive est classée en trois catégories:

- Huile d'olive vierge

Huile obtenue à partir des olives saines et mûres uniquement par des moyens mécaniques ou autres procédés physiques dans des conditions thermiques n'entraînant pas l'altération de l'huile.

L'huile d'olive vierge est classée suivant son degré d'acidité en:

- Huile d'olive vierge extra: maximum 1% d'acidité
- Huile d'olive vierge fine : entre 1 et 3% d'acidité
- Huile d'olive vierge semi-fine: entre 1 et 3% d'acidité
- Huile d'olive vierge lampante: minimum 3% d'acidité

- Huile d'olive raffinée

Huile obtenue par raffinage d'huile d'olive vierge suivant le processus habituel du raffinage qui comporte la neutralisation, la décoloration et la désodorisation.

- Huile d'olive pure

Huile constituée par un coupage d'huile d'olive vierge et d'huile d'olive raffinée.

L'huile de grignons d'olive est obtenue par extraction aux solvants des tourteaux obtenus de la pression des pâtes d'olives.

Systemes de Pressage

SYSTEME DISCONTINU	SYSTEME CONTINU
1)Lavage des olives	1)Lavage des olives
2)Broyage dans un récipient à l'aide d'une pierre et des meules	2)Bryage automatique
3)Lavage à l'eau tiède	3)Lavage à l'eau tiède

Systèmes de Pressage

SYSTEME DISCONTINU	SYSTEME CONTINU
1)Lavage des olives	1)Lavage des olives
2)Broyage dans un récipient à l'aide d'une pierre et des meules	2)Broyage automatique
3)Lavage à l'eau tiède	3)Lavage à l'eau tiède
4)Malaxage à l'eau opération à température modérée	4)Malaxage à l'eau opération à température modérée
5)Séparation des solides et liquides: presse à levier, presse à vis, ou presse hydraulique, Utilisation de scrutins ou de disques filtrants	5)Séparation des solides et des liquides: centrifugation de la masse,pâte diluée dans l'eau tiède est injectés dans les décanteuses ou centrifugeuses de 3000 à 4000 tours par minutes à axe horizontal résultat: sortie de grignons,des margines et de l'huile séparément.
6)Séparation de l'huile par décantation	6)Séparation de l'huile par centrifugation à 7000 tours/mm avec un axe verticale.

II. Manufacturing Process for different Table Olive Products:

- received in the door,
- preliminary cleaning for sticks and leaves,
- sorted by caliber,
- sorted for color, decision made to send to Spanish style or California style black, or off the line back to the brokers for resale or pressing into oil.

Spanish Style Green: high quality greens, uniform color

- put in caustic to cut bitterness and penetrate the skin, then take out, wash or don't, then put in brine and let it leach, for a fermentation period of 60-90 days
- brought back out for a sort by color and quality
- cleaned and separated for bulk or canned
- run through additional processes: slicing, pitting, stuffing

- put into cans
- cans then corrected by hand for weight
- put through a filler with hot brine
- lid put on, run through a continuous pasteurizer
- wiped clean, labeled, put in a carton, wrapped on palette

California Black Style: usually all green, but can also take the spotted ones and the turning ones.

- put down in low salt brine for holding until decision to process; can be held for unlimited time in underground tanks
- oxidized in tanks for one week, with or without chemicals
- sorted for quality
- sliced, wedged, pitted, stuffed
- canned, brined, pasteurized
- sterilized

Greek Style Black

- picked off the tree black and brought into the factory;
- put into an acetate solution in barrels for curing for a period of 4-6 hours;
- olives are then washed and put in a dry salted barrel, which is rolled once a day move the liquid around and give an even fermentation and suck out the acetate;
- sorted and packed into vacuum packs (most common) or put into barrels and shipped to reconditioner who puts into jar.

Dry Salt Black

- Picked off the tree very ripe;
- put into a barrel with just dry salt and then are rolled regularly. Or put in vats and put boards on top, stir occasionally and serve when ready.
- sold on the local market or exported.

Turning Olives

These olives are treated essentially the same as the Spanish Style, except that the color is a non uniform green. These are usually prepared in various styles, often cracked and mixed with other spices, to give them more hot and sour flavors.

ANNEX 3

INTRODUCTION TO FRUIT PURCHASE METHODS

The purchase of olives is one of the most complex elements in the subsector. With neither the time, knowledge nor money for processors to purchase all of the production directly, there exists a range of different methods with different intermediaries.

I. INTERMEDIARIES

A. Dependent Dealers

These olive buyers are in long term partnerships with the processing factory. Beginning in June, they survey the growers interested in a standing sale. They estimate the harvest and agree on a price for the orchard (subject to their partner's approval) with the farmer. They then contact their partner processor for approval of the contract terms and harvest estimate. After a visit (optional when the dealer is considered reliable), the final agreement is made. Then the partner finances a part or the totality of the orchard purchase. The dealer oversees the maintenance and irrigation from the purchase date to the harvest. According to combined estimates, one processor contribution rose, on the average, to 1.50 dirhams per kg for that year's harvest.

The decision to harvest is made jointly with the partner. The buyers's main role appears at this point. He mobilizes the labor force for the harvest and transportation to the factory. He delivers according to the factory's receipt possibilities (more or less). At this point the spot price is already determined on the markets (souks). He is paid based on 75% of the spot price for his deliveries once the advance authorized for the orchard purchase is used up.

Once the delivery is completed, the balance is paid according to the associate's goodwill (according to some processors, profits are shared at a base of 50% each).

B. Company Teams (Company X)

Let's take one true example. Company X controls one or two olive harvest teams. This allows him to make standing purchases directly from the orchard and to earn all of the profits.

In reality, he specializes in purchases for auction sales, from the SODEA and certain growers. In this instance, he guarantees the purchase with a company check, then operates through a figurehead for the actual payment of the farm (the reason given is fiscal: the dealers used as figureheads don't pay taxes and the profits are thus obtained under the table).

C. Independent Dealers

This term covers very different situations:

- Roadside and souk operators
- Dependent dealers who intervene on their own behalf when they spot a particularly attractive deal, and
- Outright speculators

In all of these cases, they purchase the fruit and resell it to the factories at market price.

D. Growers: (Company Y)

In Company X's case, there is no direct delivery by the growers. Nevertheless, this method deserves to be pointed out because it involves a considerable evolution of the relationship between farmers and manufacturers since the 1988 study.

The farmers (those who hold an important share of more than 100 tons according to company Y) deliver directly to the factory, which sorts according to size and quality, giving advances and balancing the account with quality premiums.

This procedure benefits both parties, since it guarantees a quality stock at attractive terms.

E. Other Types of Direct Relationships With Growers

Certain growers have even more privileged relationships. They secure the harvest and deliver to the factory, which evaluates the product. They are paid according to the price on the spot market on one hand and the size and quality delivered on the other hand. This guarantees a premium of more than 15% for the grower and a high quality product for the canner. In effect, this system raises the incentives to control produce quality, which amount to immediate profits. They also guarantee the commercialization of the produce.

II. SOUK PURCHASES

At least for canned olives, souk purchases represent a supplement for larger units and the battleground of supply for smaller units. Its role is to guarantee a fixed spot price on the one hand and allow the commercialization of the small growers on the other hand. In effect, the standing purchases begin in July, without good information on the season prices. Thus when the transactions are made in reference to the spot price, they are based on the souk. The second important point deals with the commercialization of the small growers. Their production does not warrant the mobilization of a harvest crew so they generally utilize family labor. It is therefore preferable for them to deliver their produce to the roadsides and/or the souk.

A. Procedures and Intermediaries

The souks are the marketplace for small farmers and certain independent dealers. Factory representatives restock there and prices are fixed in function of the competition, quality, and greater or lesser degree of manufacturers' control of the market.

1. Small Growers

We have already presented the reasons explaining the small growers' presence in the souk. In the case of small, scattered orchards, it is largely the result of high harvest and collection costs. This operation is taken over by the growers themselves or else by the small dealers who concentrate the offer and therefore equal the manufacturing units' stock.

2. Small Dealers

These are the quintessential dealers. They collect on behalf of the large dealers or on their own behalf and concentrate the bid in order to warrant transportation.

3. Factory Representatives

Factory representatives are active as well. They buy on behalf of processing units through growers and dealers. They generally have trucks at their disposal to guarantee rapid delivery.

B. Price Assessment

This paragraph will describe how olive prices are determined, considering on the one hand trituration olive prices and on the other hand the eventual agreement between manufacturers to fix a maximum harvest price.

1. Price relationship between Table Olives and Trituration Olives

Table olives receive a premium with regard to the olive destined for trituration. This is easily explained by the importance of fruit quality and color for canning as well as the reduced time between the harvest and canning. The premium is relatively standard, about 60 centimes. It is true that the importance of orders for the table olives and the harvest in the region of Marrakech can lead to speculation on this premium. But at first glance, an approach in the form of a quality premium is standard.

In this case, table olive prices are determined by trituration olive prices, which depend on the local supply and demand for olive oil. In the 1960's and beginning of the 1970's, Morocco exported important quantities considering its production, and the domestic price of olive oil equalled the global price. This situation changed radically with the narrowing of the world market on one hand and the appearance of local

shortages on the other hand. The Moroccan government implemented radical protectionist measures against imports (import licenses which were almost never issued). Also, oil prices

experienced strong fluctuations as a function of the harvest. This explains the huge price increases registered since 1985.

2. Manufacturers' Oligopoly?

We have seen in the preceding paragraph that table olive prices are determined to a large extent by trituration olive prices. Also, the possibilities of an agreement between manufacturers to fix olive prices are limited, except in the case of heavy production. According to professionals surveyed, for several years manufacturers succeeded in fixing a ceiling for olive prices. Several factors explained this domination:

- in proportion to trituration olive prices, the premium was considerable. The processors also had great negotiating power.

- domestic demand for olive oil was limited, thus competition by the triturators was weak and canned goods manufacturers controlled the market.

These two factors have changed. Competition for the fruit has become more intense. All attempts at rebuilding the cartel have failed.

At present, manufacturers are evaluating the olive oil demand and production in different regions and are fixing prices that they then adjust according to market development. This no doubt explains the arrangements where prices are in relation to the spot rate.

People and Companies Contacted during the Olive Subsector Study

Ministry of Agriculture and Agrarian Reform - Rabat

Mr. MAGHDAD	Director, DPV/DH
Mr. BERICHI	DPV/DH
Mr. RAOUSSI	DPV, DMVIA

Office de l'Haouz, Marrakech

Production Horticole :	M. HADIRI
Agro-Industriel	M. BENSOUDA
	MR. BOUTAOUT Ahmed

Direction de Production Agricole, Fés

Associations and other Organizations

INRA	Mr. LOUSSERT, Projet Olive
EACCE	Mr. BEQQALI, Mr. MICOU.
CMPE	Mr. BELARBI
FICOPAM	Mr. GHOUIBI
ADEHO	Mme. MAROUFI, Mr. MEGZARI

Private Companies

FRAMACO	Mr. Ali BEN KHALED
TopAgro	Mr. Ahmed BENNIS
TopFood	Mr. Allal CHRAIBI
Cartier-Saada	Mr. DEBBAGH and Mr. CARTIER
Huilerie de Meknes	M. Moulay Messaoud AGGOUZAL, M. EDDAOUDI
MaroCapres	Mr. Elie DEVICO
SOFIAG	Mr. GUESSOUS
SIMOO, CAMSA	Mr. LAGHRARI
SESTA	Mr. SEBELLINI
Cons. de Marrakech	Mr. ZAGMOUZI
Maroc Nouveau	Mr. LAHMADI
Lesieur/Cristal	Mr. MEGZARI,
SICOPA	Mr. BENZAKOUR
RIM	Mr. Zouhair BENABDELLAH
SIOF	Mr. K. LAHRABI, Mr. A. LAHRABI
Ste Oléicole Idrissia	Mr. IDRISSI Hamid
Huilerie Conserverie Tensift	Mr. LAGHRARI Abdelmajid
VCR	Mr. Mouncef KABBAJ (DIRECTEUR), Mr. Haj Mohamed BENAZOUZ
Sté Bouyad et Fils	Mr. BOUYAD, Abdelwahab
Sté Sucrerie Nat'le du Beht	Mr. Mohammed DEBBARH

DIRECTION DES DOMAINES AGRICOLES ROYAUX	Mr. SQALLI (Directeur adjoint)
Domaines Royaux, Marrakech	Mr. HANICH

Service Companies

CARNAUD	Mr. Regineg
Office National de Transport (ONT)	Mr. Chihad
COMANAV	Mr. Rouissi
CIBA-GEIGY MAROC S.A	Mr. EL KRAD Jadal
S.A.S.M.A.	
Pepinières DHOBB	

ANNEX 5

COST OF PRODUCTION FIGURES

COMMENTARY CONCERNING COST

Extreme difficulty was encountered in obtaining any solid data concerning the cost of producing any type of Moroccan olives. The data gathered was fragmentary and only of a general nature. At no plant was it possible to learn the actual cost per unit of any of the various products packed. Either the packer didn't know the actual cost by line item or they were reluctant to share it. The former is suspected.

It is, therefore, understandably difficult to come up with any meaningful data concerning cost.

All the plants visited appeared to be making money. However, we saw no financial statements.

Concern has been expressed as to where the best opportunity lies for growth and expansion; however, without knowing what particular segment of the industry will produce the best returns, it is quite impossible to arrive at an intelligent answer to this question. Of course, in order to know which segment (Spanish Style, Green, Black Ripe, California Style, Greek Style, or Olive Oil) will make the best return, it is necessary to know the cost of each line item in each of these segments as compared to the world market prices.

Chart 2

LIVE OIL COST - MOROCCO

e following is an approximation of the costs of OLIVE OIL as computed from data found in a 86 industry publication updated with current year Raw Product prices.

UMMARY

Cost of Olives	17.68 dh/liter
Bottling (including container cost)	1.60
Total	19.28 dh/liter

OMPUTATION

Fruit Cost @ 3 dh/kg		3,000 dh/ton
Transportation (estimate)		250
Total Raw Product Cost fob Plant		3,250 dh/ton
Less 36% of 150 dh/Ton		-54
Adjusted Price at Plant		3,196 dh/ton
Assume 18% Recovery	5.555556 Ton required per ton of oil	
Cost/Ton of Oil		17,756 dh/ton of Oil
Pressing		1,200
		18,956
Liquid Loss	2.00%	379
		19,335 dh/ton of Oil
Convert to Liters, multiply by:	0.9145	17.68 dh/liter of Oil
(Specific gravity of olive oil, 1.09378)		
1 divide by 1.09378		
Add Bottling, Including Container Cost		1.60
Total		19.28 dh/liter of Oil

Chart 3

COMPUTATION OF PRODUCTION COST - - 6/10 SLICED OLIVES

It should be clearly understood that this computation is based, in some cases, upon fragmentary information collected at various plants and, in others, on our best estimates.

CAN SIZE	6/10
STYLE	Sliced
DRAINED WEIGHT	1,560 g

COST PER CASE	dh/Case	%
1) Raw Product	46.80	45.64
2) Receiving Labor	0.75	0.73
3) Processing Labor	4.19	4.09
4) Other Labor	0.50	0.49
5) P.R. Taxes & Benefits	0.93	0.91
6) Pitter Royalties	3.10	3.02
7) Container Cost (cans)	37.67	36.73
8) Casas	2.56	2.49
9) Other Misc.	1.00	0.98
10) Energy Cost	1.00	0.98
Total Variable Cost	98.49 dh	96.04 %
11) Depreciation	1.30	1.27
12) Interest	1.76	1.72
13) Administrataive	1.00	0.98
Total	102.55 dh	100.00%

Chart 3

IMPTIONS & COMPUTATIONS

aw Product

Calculation of Yield

1560 g Drained Weight per 6/10 can
1560 g x 6 Cans/Case = 9360 g/case
9360 g/case divided by 80% recovery = 11,700 g Fruit required / 6/10 case
One metric ton = 1,000,000 g
Therefore: One metric ton (1,000,000 g) / 11,700 g/case = 85.47 cases/ton

Calculation of Cost

Cost of Fruit - 4dh/kg fob Plant
1,000 kg - 1 ton
Fruit Cost 4,000 dh/ton
Cost/Case - 4,000 dh / 85.47 case/ton - 46.80 dh/case

eceiving Labor

Process 250 tons/day
Assume 8 hr. day
250 t/ 8hr = 31.25 ton/hr
250 workers @ 8 dh/hr = 2,000 dh/hr
2,000 dh/hr/31.25 ton/hr = 64 dh/ton
64 dh/ton divided by 85.47 cases/ton = .7458 dh/case

rocessing Labor

Assume 22,000 cans/day
240 workers
8 hr/day
22,000 cans/day - 2,750 cs/day = 458 cs/hr
240 workers @ 8 dh/hr = 1,920 dh/hr
1,920 dh/hr divided by 458 cs/hr = 4.1921 dh/cs

ther Labor

Estimated @ .50 dh/cs

ayroll Taxes

Receiving/cs	0.7488 dh
Processing/cs	4.1921 dh
Other	0.5000 dh
	5.4409 dh
Payroll Tax @17%	0.9250 dh

itter Royalties were assumed to be 3.10 dh/case.

Container Cost

Per can	4.73 dh
Add'l for Litho	0.69 dh
Add'l for Enamel	0.86 dh
Total/Can	6.28 dh
Cans/Cs	6.00 dh
Cost/Cs	37.67 dh/case

Chart 3

8. Cartons	2.56 dh/case	
9. Miscellaneous Supplies & Expenses		
Estimated	1.00 dh/cases	
10. Energy Cost		
Estimated	1.00 dh/cases	
11. Depreciation - Assumes New Plant 50% Olives, 50% Other Products		
Estimated Cost of Facility (including building & equipment)		$8,000,000
Depreciation - per year @ 15 years straight line		$533,333
Convert to Dh - $533,333/8.6 dh/$		4,586,663 dh / yr
Assume 50% applicable to Olives		2,293,332 dh / yr
2,293,332 dh/yr/22,000 ton/yr/85.47 cs/ton =		1.298 dh / cs
12. Interest - Assume:		
Borrow 50% of Fruit Cost @ 15% for six months		
22,000 ton x 1,000 kg/ton =		22,000,000 kg
22,000,000 kg @ 4 dh/kg =		88,000,000 dh / yr
50% financed		44,000,000 dh / yr
Interest 44,000,000 dh x 15% for six months		3,300,000 dh
Interest per ton = 3,300,000 dh/ 22,000 tons =		150 dh / ton
Interest per case = 1,500 dh/ton/ 85.47 cs/ton		1.76 dh / case
13. Administration		
Estimated		1.00 dh / case

ANNEX 6

U. S. MARKET

The U.S. market for olives is one of the largest in the world and the U.S. is the largest importer in the world of both Olives and Olive Oil.

The U.S. industry

The U. S. ripe olive industry is comprised of five processing firms in California. Processors and growers operate under the Federal Olive Marketing Order. Dave Daniels of the California Olive Committee administers the Order. The purpose of the Order is to establish industry standards for quality, size and grade. It also provides for generic advertising that creates category growth and awareness. The industries largest processor is Bell-Carter Foods who holds a 35% share of the tonnage. Vlasic Foods, a subsidiary of Campbell Soup, is number two in tonnage but number one in retail brand with a 31% share. Just a year ago, the leader in tonnage and number two in retail share, Lindsay Olives Growers with estimated annual sales volume of $60 Million went on the auction block. All attempts by other firms to acquire Lindsay failed. Finally, some assets were sold to provide cash flow. Currently, Lindsay is in bankruptcy proceedings, the latest casualty in a highly competitive industry that has lost eight other processors in the last ten years.

U.S. Production

U.S. fruit is used primarily for the production of California ripes. The California Olive Committee figures for production over the past nine years has been:

YEAR	Harvest
1984:	91,000 tons
1985:	96,000 tons
1986:	112,000 tons
1987:	68,000 tons
1988:	88,000 tons
1989:	123,000 tons
1990:	131,000 tons
1991:	63,000 tons
1992:	163,000 tons

Most olives are sold pitted (55%), followed by sliced (35%). Whole olives account for only a very small percentage of the olives sold (2%), and the rest are chopped, wedged, etc. (8%).

Imports into the United States are not usually calculated in tons but on a "basic case" which is comprised of 24 size 300 cans (about 250 g of fruit per can).

The California Style Olive (black ripe) Market

The U. S. ripe olive category is approximately $170 million in sales. Over the past few years, the retail unit sales growth has ranged from flat to a slight increase. The retail segment is highly competitive and supported with strong marketing programs. At the retail level, the programs will constitute price concessions, advertising, and displays. To spur consumer takeaway, the processors might use a variety of couponing or in store demos. Retail marketing programs in this category can reach levels that represent 25% of the wholesale selling price. Similar retail marketing programs are used in green olive and olive oil categories.

The food service segment of the ripe olive category has experienced strong growth since 1982, with only 1987 reflecting a decline in unit sales. This is the result of the explosive growth of the fast food industry (pizza, Mexican). Sales in 1991 of food service ripes was approximately 5.7 million basic cases. Growth in unit sales in 1990 and 1991 was 19.7% and 9.4%, respectively. However, the 1992 unit sales reflect an 8% decline and the whole category is down about 8.5%, most likely due to the short crop in 1991.

The U. S. ripe olive industry was unable to supply this food service demand and imports moved to fill the void. Imports peaked in 1987-88 with a 22% share of the domestic market (about 23,400 tons - see table next page). Since then, imports have gradually declined to their 1990-91 level of 8% or 12,300 tons. Imports increased in the 1991-92 market year to nearly 3 million cases or 18,000 tons due to a short U. S. olive crop. But any gain will be offset by the 1992 crop which was reported as the largest in history of the U. S. olive growers. This huge crop has already impacted the industry with 1993 olive prices declining in most markets. Currently, food service sliced 6/10 prices are reflecting price concessions in excess of 30% versus a year ago pricing.

In the past, Spain has been the largest exporter of canned ripe olives to the U.S. The majority of imported product competes in the food service sector, primarily in 6/10 sliced section. Moroccan imports are a distant number two, followed by Greece. Most olive imports recorded from Greece are dry salt or Greek Style.

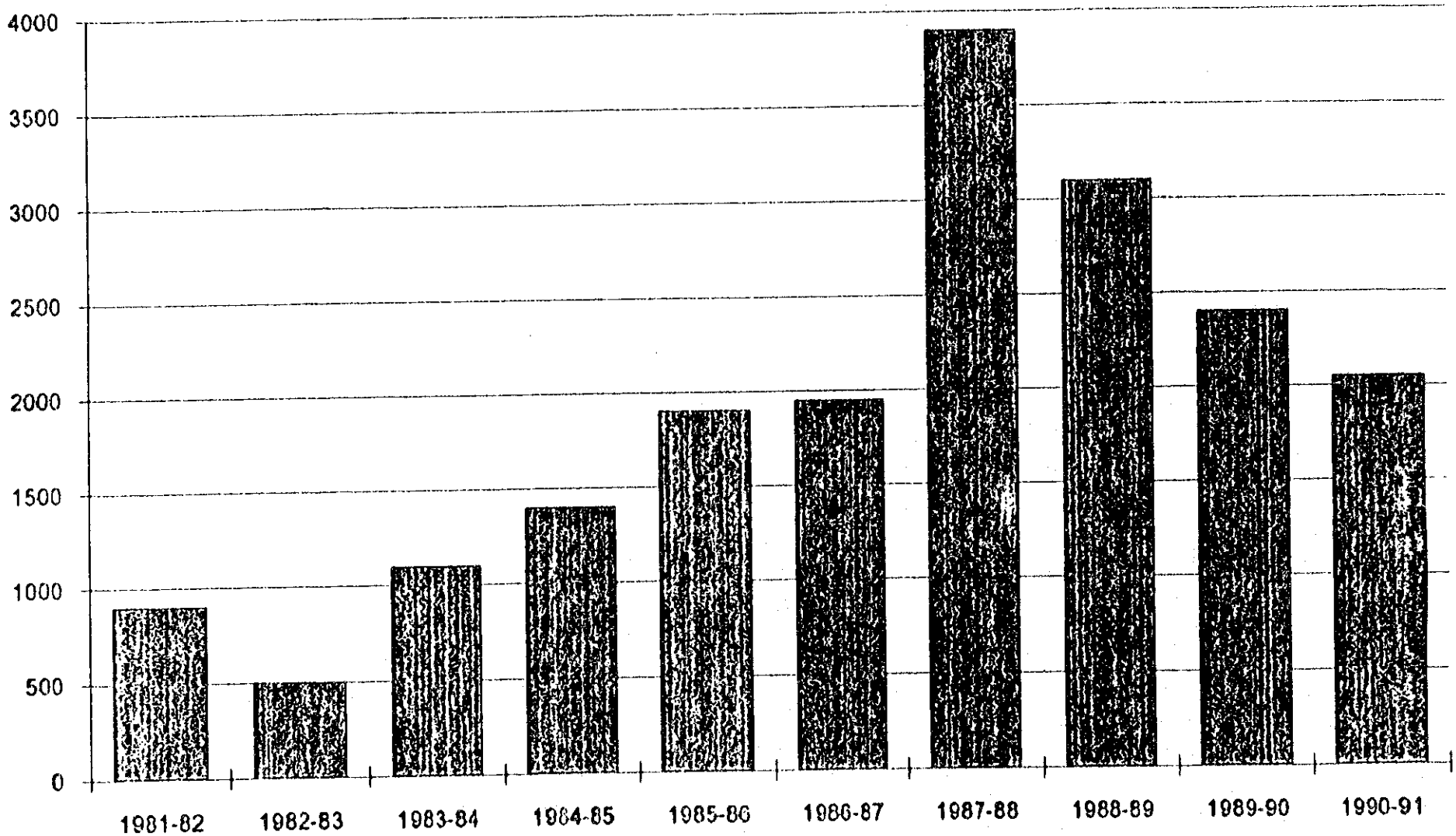
Market information regarding Greek style olives is very limited. Typically, Greek style olives are placed in the all other imported olives category. This category has been experiencing strong growth up 9% in 1991 but details are sketchy.

Spanish Style Market

The U. S. green or Spanish style olive category is approximately $160 million. The category is dominated by private label products with Vlasic ranking number two with 18% branded retail share. This category is almost exclusively sourced from Spain (95%). Morocco is number two with 2% of the units imported. A high percentage of Spanish imports are in bulk and are repacked. Spanish style olives are predominately sold on the East Coast. New York is the largest retail market with approximately a 10% share of the category.

Olive Imports

Basic Cases (000s)



Basic case = 24 300 size cans

Source: COC

In 1992, Spanish Style imports accounted for 7.418 million cases (42,000 tons), out of total imports of 14.341 million cases (85,000 tons). Of this total amount, Morocco had 922,000 cases, or about 10% of the ripe olives.

The Spanish Style olives, are largely stuffed (28,000 tons), though there is an important component of broken, sliced green olives, at 8,700 tons. Whole pitted green olives total only about 1,500 tons.

From a value point of view, the average price for imports in 1992 by major importers was:

Whole stuffed green:

	Price Bulk	Tons	Price Retail	Tons
Total US Imports	same Spain	8,309	See Spain	20,107
Imports from Spain	1.8/kg	8,182	3.27/kg	19,999
Imports from Morocco	1.35	7	0	na

Broken sliced green:

	Price Bulk	Tons	Price Retail	Tons
Total US Imports	1.31/kg	3,023	2.26/kg	6,605
Imports from Spain	1.31/kg	2,822	2.33/kg	5,920
Imports from Morocco	1.2	81	1.72	608

Whole pitted green:

	Price Bulk	Tons	Price Retail	Tons
Total US Imports	same Spain	907	see Spain	764
Imports from Spain	2.4/kg	712	2.98/kg	722
Imports from Morocco	1.117	72	na	

Whole pitted black:

	Price Bulk	Tons	Price Retail	Tons
Total US Imports	2.26/kg	2,157	2.46	810
Imports from Spain	2.35/kg	1,683	$2.56/kg	687
Imports from Morocco	1.77/kg	264	1.89	123

Black sliced

	Price Bulk	Tons	Price Retail	Tons
Total US Imports	1.95/kg	10,303	na	
Imports from Spain	2.0/kg	7,642	na	
Imports from Morocco	1.80/kg	2,228	na	

Broken, wedged black:

	Price Bulk	Tons	Price Retail	Tons
Total US Imports	1.74/kg	1,871	na	
Imports from Spain	2.04/kg	631	na	
Imports from Morocco	1.58/kg	1,211	na	

These tables show how clearly Spain dominates the U.S. imports of green olives. The retail sized pack of stuffed green olives has the highest price, followed by the whole pitted green in the retail sized pack. We note that Morocco, which is the second supplier of processed olives to the U.S., is consistently 10 percent cheaper than average import prices into the U.S, and 25 percent cheaper than the Spanish prices. For all of its products, and is generally in the larger size of packaging (bulk being defined as greater than 8 kg drained weight).

Moroccan exports to the U.S. and Overall Perceptions

Moroccan olive exports to the U.S consist primarily of 6 X A/10 cans of Sliced Ripe Olives, of Ripe Olive Wedges, and Medium Pitted Ripe Olives. These totalled 6,000 tons in 1992 according to the USDA, worth about $9 million.

The U.S. foodservice market for ripe olives can be divided into three distinct markets based on perceived product quality and value:

1. U.S. domestically produced olives have the most perceived value and get the highest price;

2. Ripe olives from Spain have a lower quality perception than U.S. production and must discount their product to $3-4.00 less than California olives to be accepted;

3. Moroccan ripe olives fall into the third category which have a general perception of lower quality and must therefore price themselves below Spanish olive by about $2-4.00

Moroccan exports suffer from two market weaknesses: poor perceived quality of the product and the image that Morocco is not a dependable supplier. These perceptions are not universal, but they are quite general and widespread.

Perception of poor quality relates to the texture of the olive, either too firm or too soft, the color (non-uniform), and from the flavor being to strong. Reputation as an undependable source of supply relates to stories of orders placed with Moroccan processors that arrive late or my be placed and accepted, but which never arrive.

Most customers for Moroccan olives are olive importers or import brokers who must resell their olives to end users. When the importers experience delivery delays they must seek other sources of supply to meet the needs of their customers. These usually have to come from Spain at a higher price, which cuts into the Moroccan reputation even more.

OLIVE OIL

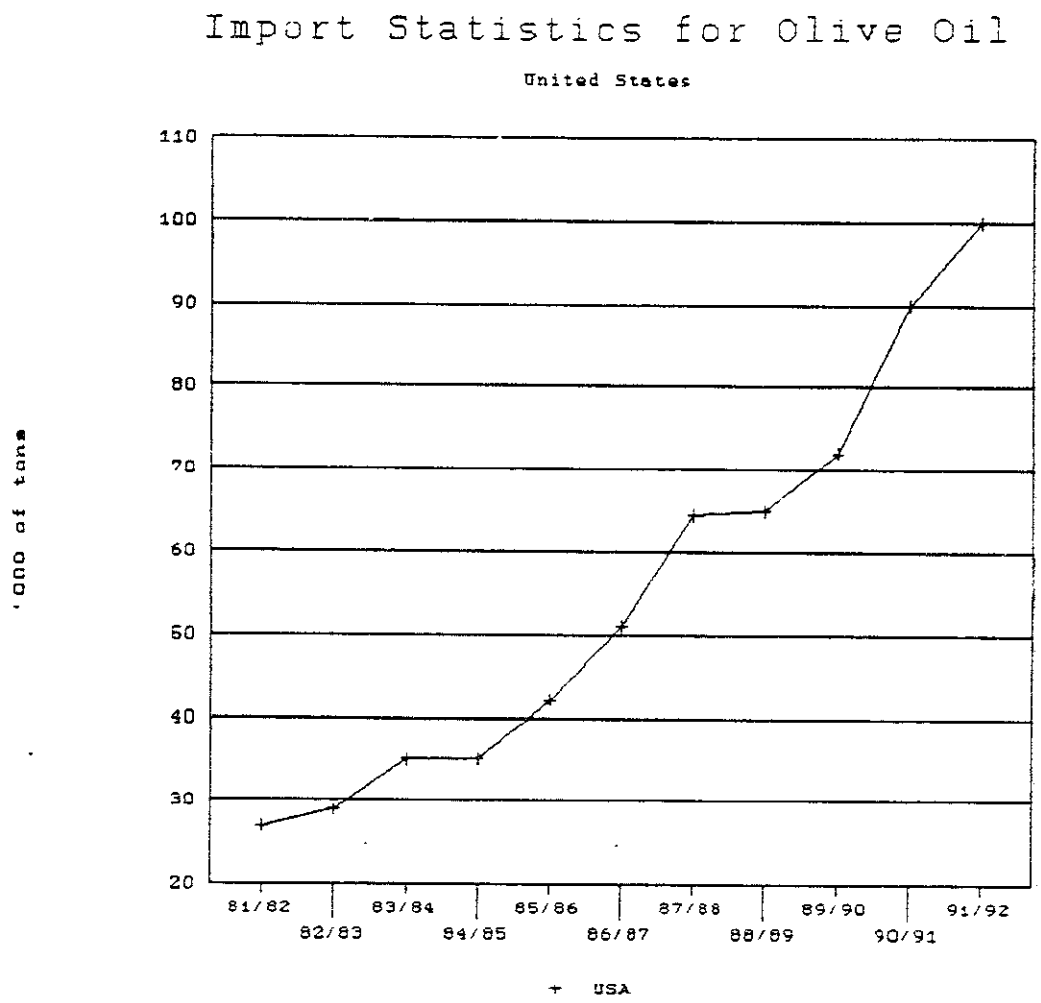
The U. S. olive oil market was approximately $190 million in 1991. The great majority of U.S. olive oil is imported, with most locally pressed oil being produced from table olive rejects. Italy is the leading exporter to the United States. The category has experienced strong growth for the last ten years in both units (depicted below) and dollars. The category is perceived by most consumers as a healthy product. Health conscious Americans have been quick to respond to these product claims. Furthermore, the American Heart Association has endorsed high quality, mild tasting olive oil as a product that has healthy attributes. All of these factors have helped to increase sales in the health conscious U. S. market. Category growth in 1991 is up 5% in dollars and almost 10% in units. The U. S. olive oil category should continue its solid growth pattern, see chart. The higher quality virgin and extra virgin segment will experience the strongest growth.

The retail price for extra virgin olive oil varies by retail outlet. Some prices range from a low of $4.59/liter to a high of $8.19/liter. This is in line with the world market prices, when you add on transportation, packaging, freight, warehousing, some overhead, plus the retailer's margin. Margins normally run 11-13% for the wholesale/warehouse stores (like Price Club) which sell unbranded products, in order for them to attain a 5-5.4% return on investment. Branded products, with all of the associated costs, will sell for significantly more.

In terms of geographic market segments, the main areas to target in the U.S. would be the East Coast for the ethnic market, which is very brand conscious, and the West Coast for the health aspect of the product, which is more generically oriented.

An example of Morocco's current price position vis-à-vis the U.S. market reflects part of Morocco's marketing problem. Price quotes were requested from numerous Moroccan firms for Extra-Virgin olive oil in January 1993 and were received at $2.49/l, for bulk oil FOB Casablanca. At the same time, unbranded Italian Extra Virgin Oil was quoted at $2.29/l landed San Francisco, including estimated duties and customs fees.

Table II



From a comparative point of view, this places Morocco's olive oil well beyond the world market rates. The $2.49 quote (received from three separate sources) is well above their costs of production and probably represents a couple of layers of middle men. It probably also reflects a lack of sensitivity by Moroccan processors to the evolving world market prices, exchange rate changes and the high value of the product within Morocco.

ASSESSMENT OF IMPACT ON THE U.S.

Table Olives

The U.S. produces mainly California style black olives. Moroccan exports to the U.S. are currently mainly California style black olives, but in sliced form for the food services market. As noted in the analysis above Moroccan product has a low perceived

quality with an accompanying severe price discount based on its poor image. Out of the 15,000 tons of imported California style olives in 1992, Morocco accounted for about 22% of U.S. imports of this product, while Spain accounted for over 60%.

An increase in Moroccan exports to the U.S. will require a number of improvements to the production operations and quality of the Moroccan product. At present, there is such a large difference in the perception of the product, that any initial inroads which Moroccans make into the U.S. will most likely come at the expense of the Spanish exports. The product categories where the imports have the greatest advantage, as noted above, are in the food service area, where the brand labels are not important. At present, the bulk of the U.S. production is going into the whole black, pitted olive, for which the U.S. only imports small quantities (about 5% of consumption), most likely for the food service industry. It will be very difficult for Morocco to compete with the branded products in the whole, pitted, California Style olive. So increases in Moroccan exports to the U.S. would be bothersome to U.S. producers, but would most likely not take much market share.

The U.S. olive industry produces almost no Spanish Style green olives. Spain is currently responsible for about 99% of imports. Morocco has almost none of this market, except in the broken, sliced greens, the lowest value segment of the green market. Since this is the market opportunity with the greatest potential, any increases here will replace Spanish imports. Given the importance of the Spanish production, many U.S. companies have established joint venture arrangements with Spanish companies to guarantee their supply. However, given the increasing cost of Spanish production, these firms may seek to replace their source of supply. Since much of this is the branded market, it will require the U.S. branded dealers to accept the Moroccan product.

Olive Oil

The U.S. produces very little no olive oil at present, so project no activities in olive oil would affect U.S. production.

ANNEX 7

EEC POLICY IN THE OLIVE OIL SECTOR

Introduction

The European Economic Community has implemented a market structuring policy for the olive - olive oil subsector. The Community decided to encourage olive production through action on the olive oil market. For this product, it defined an extensive system of intervention on the level of production as well as on the level of consumption.

Spain, Greece and, to a lesser degree, Portugal's entry into the EEC transformed the Community from a net importer to a surplus exporter. This led to changes in the EEC's intervention methods. In particular, CAP (common Agricultural policies) reforms based on the establishment of Guaranteed Maximum Quantities, have been severely applied in this sector.

I. EEC INTERVENTION IN THE OLIVE OIL MARKET

EEC policy in the olive and olive oil subsector was prepared and implemented in 1966, when the EEC was globally short of the product. The policy's objective was to guarantee increased production as well as avoid an important exodus by growers by means of production assistance. As all intervention is effected on the markets for olive oil, the support of olive production is thus indirectly guaranteed.

A. Production Support Policy

1. Intervention Price

The market organization passes through a system of differentiated prices. A price guaranteed production allows growers to get rid of unsold quantities of 75,000 tons directly to stock management intervention agencies.

2. Representative Market Price

This is the price around which the market should reach a balanced product turnover. It is fixed for consumption zones. It corresponds to the inflated intervention prices of transport costs from production centers to consumption centers.

3. Indicative Production Price

This corresponds to the "fair" price that the grower should receive to maintain community production.

4. Consumption Premiums

To maintain olive oil's competitive position against grain oils, the EEC pays the packagers a premium so that the price ratio of grain oils and olive oil doesn't exceed 2.2°.1. This premium was introduced in 1972 to reduce direct intervention. Paying the packagers this premium allows for good measure of the market production balance and therefore justifies direct interventions.

In order to encourage olive oil consumption, 4% of the price paid to growers is appropriated for olive oil promotion.

5. Base Price, Variable Appropriations and Export Restitutions

It is clear that such structuring of the market imposes protectionist measures to guarantee higher prices for imported products than for domestic products. In addition, a base price and variable appropriations measure has been implemented. It fixes a variable customs tax on European imports, that increases the price for the importer and places him in competition with community producers.

Likewise, for community exporters to be competitive on the world market, restitutions equal to the difference between the global price and the representative market price are paid to them for each export.

B. Mediterranean Agreements

The Mediterranean region produces more than 90% of world's olive oil, so Spain, Greece and Portugal's entry into the Community greatly modified the olive oil market in the region. On one hand, the expanded Community becomes a net exporter with a surplus, and on the other hand traditional exporters outside of the EEC are penalized by the application of the community preference clause. The EEC therefore implemented a transitional policy to integrate the southern countries, failing which the brutal and considerable price increases for the growers would result in disequilibrium. It likewise sought to compensate traditional exporters.

1. Transition Towards the Southern Countries

Greece, Spain, and Portugal's entry transformed the olive and olive oil markets in the EEC. From 100 million olive trees, European orchards now surpass more than 400 million trees. Traditionally these countries were exporters to the Community and their domestic prices were close to the global rates. A direct application of community regulations would have doubled prices for the growers and as a result reduced the Spanish and Greek demands and imposed a costly intervention on the part of the EEC.

The negotiated solution consisted of the implementation of structuring the olive oil market through a progressive rise in new members' domestic prices, compensated for at the level of consumption by assistance to the packagers. Furthermore, production assistance was limited to olive trees planted before 1982 to avoid a too rapid growth in Spanish and Greek production, encouraged by the profitable prices.

2. Maintenance of the Traditional Trade Flow

For the olive oil sector, Tunisia is the largest loser after the integration of these countries into the EEC. Since the renegotiation of the 1986 partnership agreements, the Community gave it a duty-free quota of 46,000 tons. Tunisia sells its quota to the Community, mainly to Italy, at a price slighter lower than the base price. This allows Tunisia to preserve its traditional trade flow with the EEC and to compete with its surplus on the world market by intersecting subsidy.

C. CAP Reform

The effects of community expansion and the implementation of protectionist and compensatory measures fall roughly into two categories. The first relates to increasing PAC costs for this sector. The second deals with the effect on the world market of these measures. Facing rising costs and criticism of the effects of trade misappropriation and market disturbance, the Community began considering PAC reform in the mid 1980's.

1. Budgetary Effects

The progressive adjustment of Spanish and Greek prices with EEC price supports resulted in a high increase of FEOGA[1] costs, especially as it is accompanied by a reduction of resources obtained by the variable appropriation on these same products.

2. Effects on the World Market

The combined effects of European integration and protectionism have reduced the size of the world market, in which trade is no longer conditioned by specific agreements. In effect, the EEC only imports the Tunisian quota. Other imports are within the framework of the temporary import system, destined for re-export to the United States.

As for prices, export restitutions push prices to fall, despite the healthy growth of the American market.

3. The 1988 Reforms

The 1988 CAP reforms take place in the success of the European surplus reduction policy and control of the policy costs. The principal measure is that of GMQ (Guaranteed Maximum Quantities). For olive oil, only 1.25 million tons of oil can benefit from intervention prices. If the quantities produced exceed the GMQ, and result in an increase rise in community stocks, then intervention prices are reduced in proportion to the growth of community stocks. This clause curbs the support policy costs. Moreover, intervention prices have been frozen

[1] European Fund for Orientation & Agricultural Guarantees

4. GATT and the Blair House Accords

Considerable changes in the sector will probably occur with the GATT accords. In effect, the Dunkell Plan projects:

- protection by tariffs (duties exclusive of all other form of contingent protection);
- progressive reduction in protection levels
- a clause for a minimum of products imported by the market (5%)

If too many changes aren't made before its adoption, it will offer new opportunities for exports outside of the EEC, in step with the growth of the costs of harvesting in Europe[2].

Already the Blair House accord, which projects a 21% drop in subsidized exports over a 6 year period, is a step in the right direction, towards markets which function according to rules of economic efficiency.

II. EEC Influence in the Olive Oil Trade

We have already emphasized the EEC's importance in olive oil production, particularly since the integration of the southern countries. It remains to present the key figures attesting to this importance.

A. Production

European production comes mainly from Spain, Italy and Greece. These three countries account for more than 95% of all production. The following table, which summarizes the basics, the number of olive trees and production in thousands of tons of olive oil demonstrates this concentration and a fortiori the impact of Spain, Portugal and Greece's entry on the market balance.

Productions en huile d'olive des pays de la CEE

	Super. 000 ha	oliviers millions	83/84 tonnes	84/85	85/86	86/87	87/88	88/89	89/90
Espagne	1,955	177	287	758	428	529	770	406	577
Italy	1,176	99	842	347	656	383	742	437	583
Greece	707	120	259	248	346	246	321	334	345
Portugal	500	22	11	53	34	45	38	28	39
France	40	4	2	2	2	3	2	2	2

[2] Tariff protection, which cannot be increased, should induce a reduction of EC firms, as their costs increase.

Another way to visualize the importance of the EEC is presented by the following graph, which compares these countries' share of production to world production. It also emphasizes the very minor role of Moroccan production.

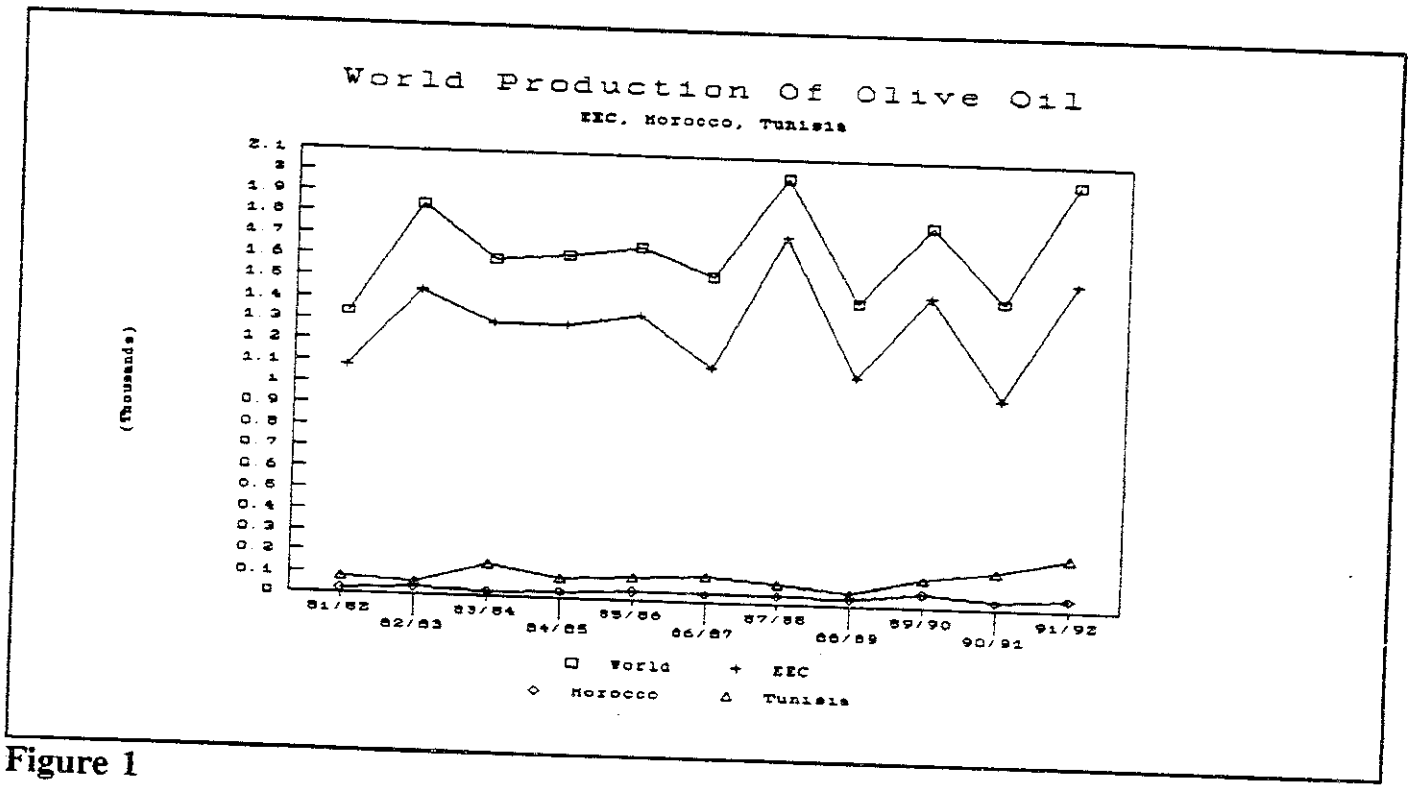


Figure 1

B. Consumption

The following graph demonstrates the principal consumption zones. The first observation is the link between production and consumption. In effect, the EEC is both the leading world producer as well as the leading consumer. A more detailed analysis of the data by country confirms this estimate within the EEC, with Spain, Italy and Greece as the main consumers. The second remark concerns the growing importance of the United States consumption, which went from 27,800 tons in 1981 to 94,000 tons in 1991.

C. Exports

As the main producer, disposing of particularly effective export promotion measures (restitutions), it is normal that the EEC would be the main supplier for the rest of the world as seen in the next graph. EEC exports include intra-community exports, which explains their high level. Tunisia is the main exporter outside the EEC, while Morocco represents very little in the market.

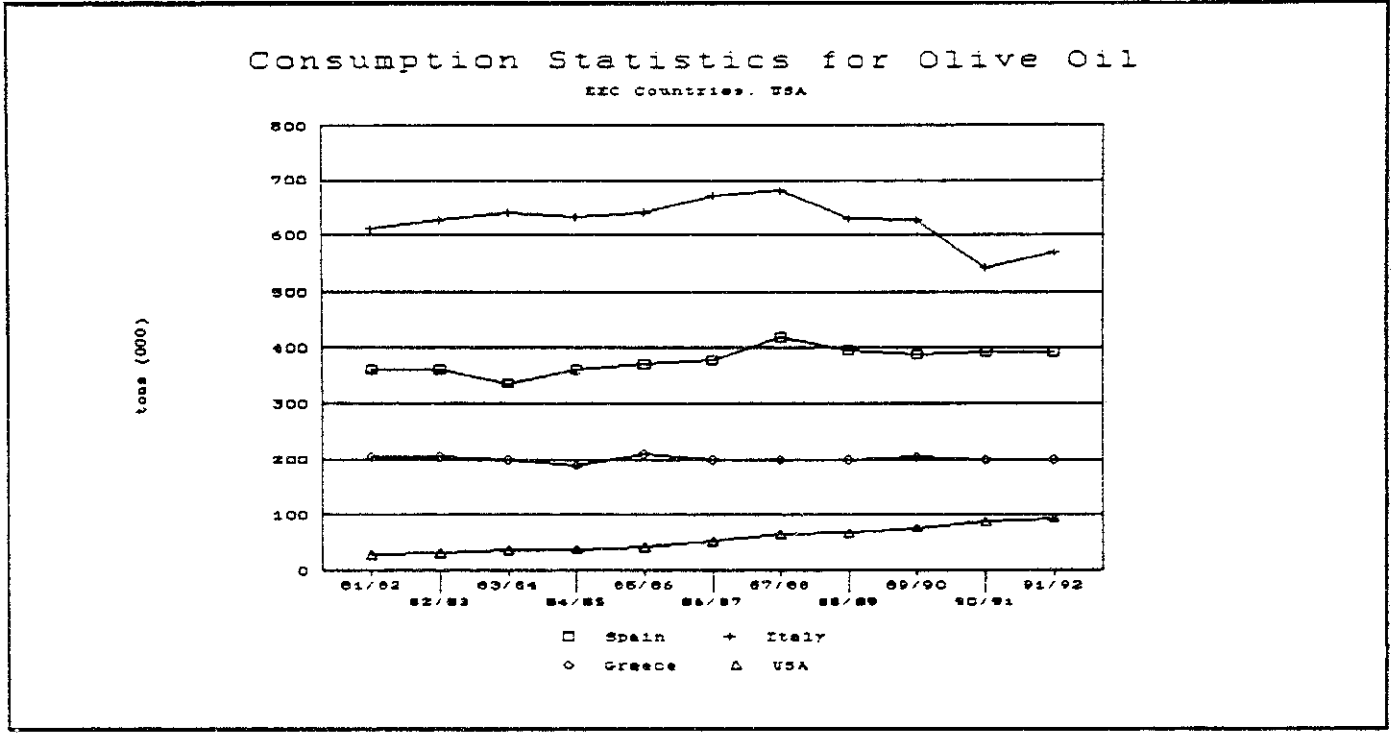


Figure 2

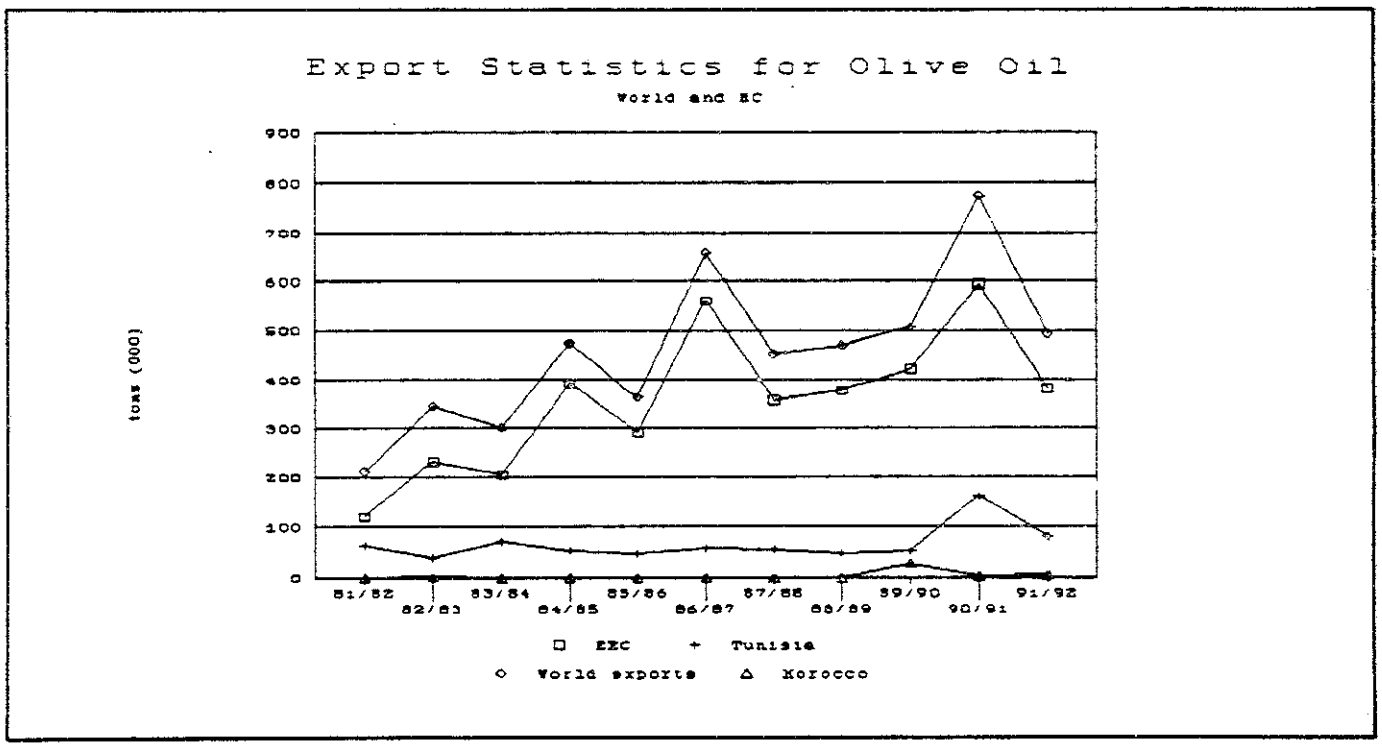


Figure 3

D. Imports

To conclude this section concerned with the EEC position, it would be useful to look at the evolution of imports. The following graph demonstrates the dominance of EEC imports among total world imports. Most olive oil trade is intra- community, which occurs at prices far removed from world market prices. A second remark is the weakness

of imports outside this zone. In effect, the only important clients are the United States and to a slight extent Brazil and Australia, with the United States predominating.

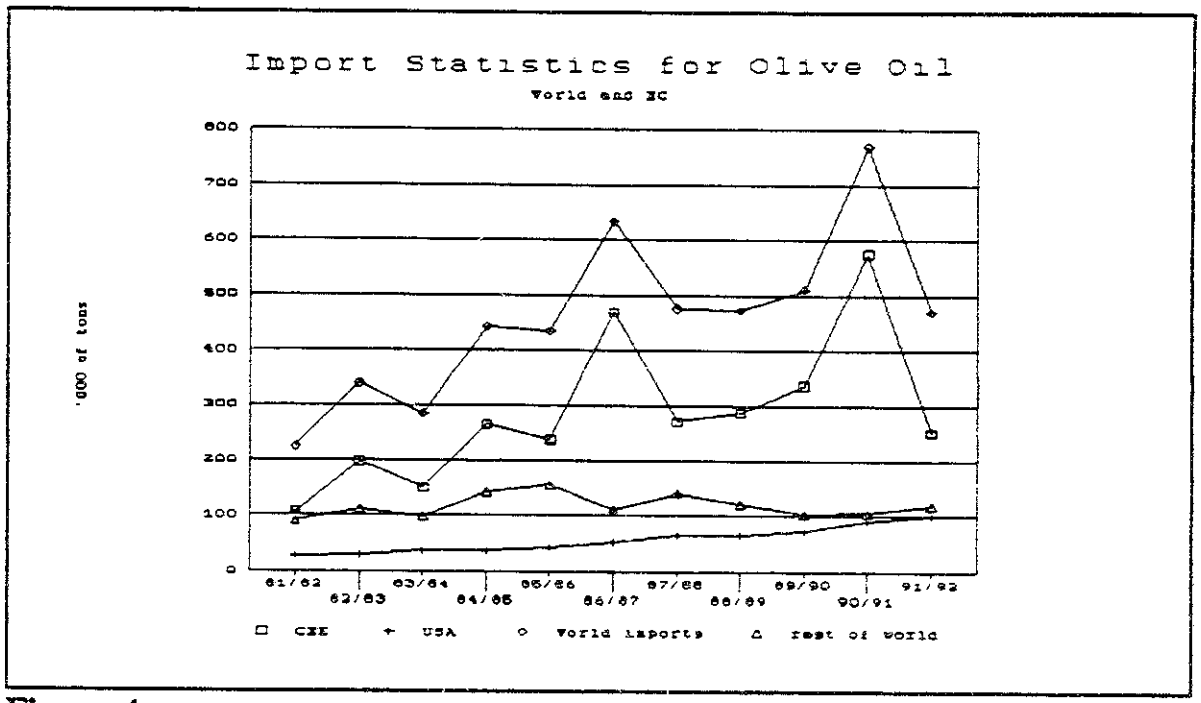


Figure 4

III. RECENT CHANGES IN COMMUNITY REGULATIONS

Until recent years, the basis of European regulation originated in the CAP, cornerstone of European policy. Since the Delors initiative to strengthen common policy by the creation of a single market and monetary and political integration, the EEC developed more standardization and consumer protection policies. By this right, it enacted two important guidelines for the olive and olive oil sectors. The first deals with standardization of olive oil and the second with commercialization methods for canned olives.

A. Standardization of Olive Oils

The European Community specified the different qualities of olive oil, based on the Conseil Oleicole International's standard. It also implemented analysis and control methods. This regulation, demonstrating the EEC's importance in production and the olive oil trade, will likely assert itself as the international standard. In this case, it will permit the rapid development of an international trade distinguishing quality and origin.

B. Guidelines for Canned Vegetables

An EEC proposal is currently under preparation to limit the commercialization of non-vacuum packed vegetables in the common market. This could potentially induce a shift of investors or partners to Morocco.