

Mediterranean citrus

One out of two!

The Mediterranean area has succeeded in profiting from its numerous assets to develop a strategy for dominating the world fresh citrus market. Thus, one fresh citrus fruit in two sold in the world is from the Mediterranean. What have been the keys to this success?

The Mediterranean is one of the world's leading citrus production zones. With 17 million tonnes, it comes second to Brazil (20 million tonnes) but is ahead of China and the United States with 14 million tonnes each (see table of producer countries).

Fresh fruits, a Mediterranean speciality

The distribution of outlets for Mediterranean citrus growing is original. Only a small proportion of production is processed (19% in comparison with a world average of 30%) as the fruits are mainly destined for the fresh market (36% against 10%). Domestic sales are less marked in the Mediterranean area than elsewhere in the world (45% against 60%).

The major citrus growing regions thus have their own specialisations. Production in North, Central and South America is focused on processing, with production of either concentrated or single juices. Mediterranean production is devoted to fresh sales and dominates the international market for easy peelers, orange and lemon. However, processing is a key market regulation tool for Mediterranean producers (3 million tonnes processed in 2003/2004) as it makes profitable use of sorting rejects.

Specialisation among Mediterranean countries

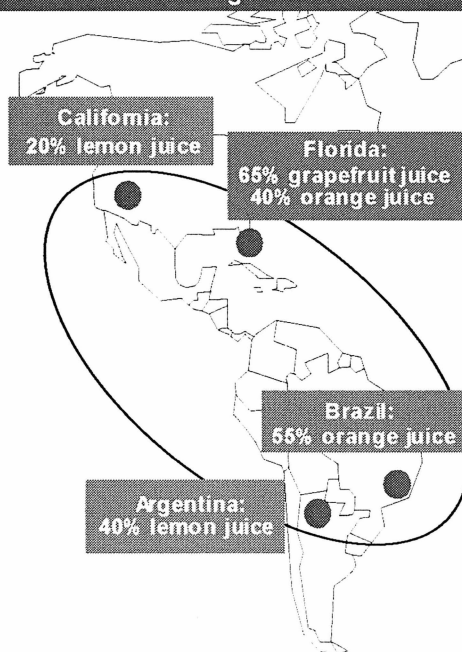
Processing is the main outlet for only two countries: Italy for lemons and Israel for grapefruit. The latter is

For the record

Citrus fruits are not native to the Mediterranean but appeared at the extremity of the Himalayas between India and China. The Jews introduced the citron, the first citrus fruit to be grown in the Mediterranean area, in the first century AD. The lemon then arrived in the twelfth century, brought by Arab caravans from Persia, where it had long been known. The orange was introduced about four centuries later, at the beginning of the sixteenth century; this was brought directly from China or India by traders from Genoa or Portugal. Easy peelers were not introduced until the beginning of the nineteenth century. This Mediterranean speciality arrived via England! Grapefruit, originating in the West Indies, was the last to arrive—during the twentieth century.

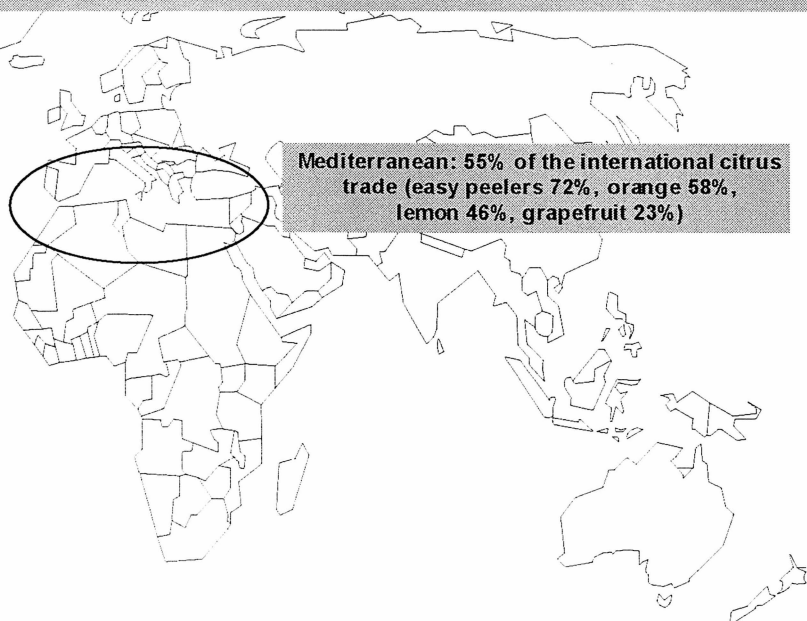
A clear geographical specialisation

Processing leaders*



* in % of the world processing

International trade leader



Source: FAO / Presentation: CIRAD

Ranking of citrus producing countries – million tonnes						
	1st		2nd		3rd	
Orange	Brazil	17.0	USA	11.0	Mediterranean	9.7
Easy peelers	China	6.5	Mediterranean	4.2	Japan	1.3
Lemon	Mediterranean	2.4	Mexico	1.8	India	1.4
Grapefruit	China	4.4	USA	1.9	Mediterranean	0.5

Source: FAO average 2003/2004, CLAM 2003/2004

Production distribution by outlet — %			
	Local market	Processing	Export
Mediterranean	45	19	36
World	60	30	10

Source: FAO, average 2000/2001/2003

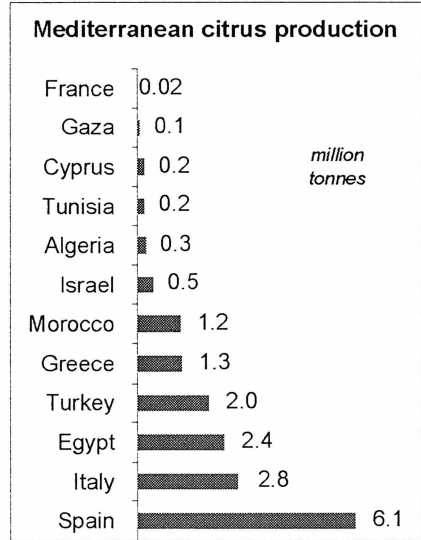
also one of the main exporters, along with Spain, Cyprus, Gaza and Greece. Morocco and Turkey export large quantities but devote a large proportion of supplies to their domestic markets. The other Mediterranean countries focus more on domestic sales.

Exports growing strongly

Exports from the Mediterranean area increased from 3.6 million tonnes at the end of the 1960s to 4 million tonnes at the end of the 1970s. The 5 million tonne mark was reached at the end of the 1990s and exports will exceed 6 million tonnes by the end of the decade. The growth rate has increased significantly in recent years from about 2.5% per year in comparison with 1.2% from 1975 to 1995. What are the keys to this success?

Particular climatic conditions

Climate is one of the main factors in success. Winters are cold enough to give high-grade citrus fruit with fine



colour and a good sugar:acidity ratio. However, the temperatures usually remain high enough to avoid

Citrus production in million tonnes			
	World	Med.	%
Total production	100	16.8	16.8
Orange	62	9.7	16
Easy peelers	22	4.2	19
Lemon	12	2.4	20
Grapefruit	12	0.5	4

Source: FAO average 2003/2004, CLAM 2003/2004

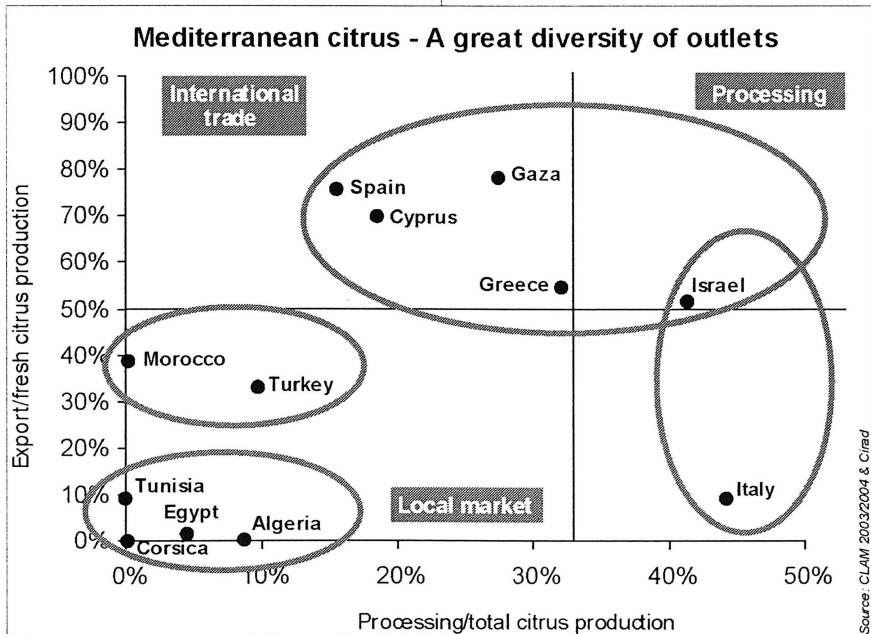
problems of frost. Frosts such as those that hit the western Mediterranean area this year are extremely rare. The last major frost was in 1985 and the preceding one in 1971.

A constantly developing range of varieties

The continuous renewal of the varietal range has also contributed to success. The case of easy peelers illustrates this clearly. In the early 1980's, the range was limited to 'Satsuma' (early), clementines and a few hybrids. The season was short—limited to November and December. Fruit quality was sometimes mediocre, especially at the beginning of the season.

New varieties reached the market in the 1990s. The aim was that of extending the season with new early clementines such as Marisol from the end of September to October, and new late hybrids such as 'Fortuna' and 'Ortanique'. This innovation strategy is still used but is now more focused on improving quality. New improved early clementine varieties such as 'Oronules' and 'Clemenpons' are sold. New, excellent quality hybrids like 'Or', 'Mor' and 'Nadorcot' have been launched recently.

The structure of the varietal range has changed completely in 30 years. 'Satsuma', that used to form nearly 40% of supply, has now almost completely disappeared. In return, hybrids used to have a 5% share but this has now been multiplied by 5 and reaches 25%.



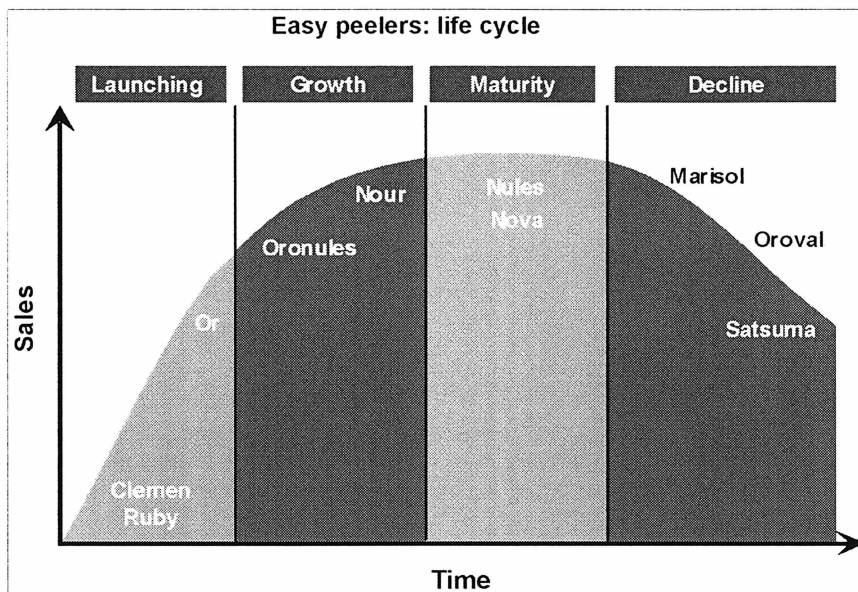
The varietal renewal policy resulted in considerably increasing the quantities of fruits available, especially at the beginning and end of the season.

Broadening the range of varieties has also fully played its role for orange. The development of a new market segment consisting of late dessert oranges ('Navelate') has boosted sales. In France, the volumes sold from February to April increased by 30% from 2002 to 2004. This proves that improved quality can generate substantial scope for development, even for a product family that some considered to be growing old.

The varietal replacement strategy follows a life cycle similar to that of industrial products (see graph). The time elapsing between launching and decline seems to have shrunk in recent years (e.g. 'Marisol'). The citrus sector thus needs high quality breeding research as a base and should contribute to its development. Such partnerships exist in some countries in the Mediterranean area.

The search for new markets

Practically all the development of Mediterranean production in the last



15 years, that is to say 1.2 million tonnes, has been sold on markets other than those in Western Europe.

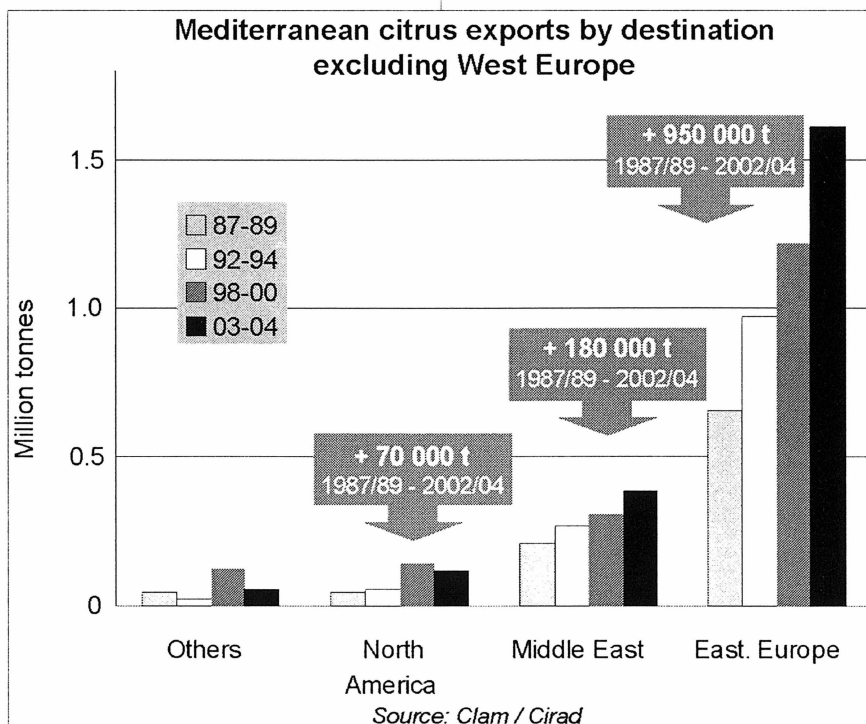
Easy peelers — Increase in supplies — Thousand tonnes			
	Average 1978/80	Average 2002/04	Variation %
Oct.	82	280	244
Nov.	315	461	46
Dec.	268	509	90
Jan.	155	371	140
Feb.	44	193	344
March	12	108	839
April	1	35	3 360

Source: CLAM

Eastern Europe is the destination that has developed more than anywhere else, with an increase of 950 000 tonnes in 15 years. This growth should continue as consumption levels are still fairly low in comparison with the 22 kg per person per year recorded in the EU, with an average consumption of 11 kg and 6 kg in Russia. Other destinations such as the Middle East have also developed rapidly, with export shipments up by 180 000 tonnes. Increasing demand for easy peelers has contributed to the strong development of exports to the United States. New potential clients are emerging. Japan is now open to easy peelers and oranges from several Mediterranean countries. The enormous Chinese market should also open rapidly.

Finally, the importance of the phytosanitary protection rules instigated around the Mediterranean should also be highlighted. The fruits grown in the zone are free of various extremely aggressive diseases. In this context, it is obvious that the rule concerning the introduction of plant material or fruits from infected zones must be scrupulously respected ■

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@ This article is from a lecture given at Fruit Logistica 2005. The slide show of this presentation can be found on <http://passionfruit.cirad.fr>