

World Markets for Organic Fresh Citrus and Juice¹

James J. Ferguson²

International markets for organic foods have increased from \$16 billion in 2000 to \$20 billion in 2001, with the International Trade Center, Food and Agricultural Organization (FAO) of the UN forecasting \$23 to 25 billion in 2003 and \$30 billion in retail sales by 2005. This rapid expansion, combined with price premiums for organic produce, has attracted farmers faced with declining prices for conventionally grown produce. However, with organic sales now less than 2% of the overall food market and estimated growth ceilings of 3.5 to 5% in developed countries by 2010, economic and market information is needed to guide grower decisions about possibly converting to organic production.

Given the lack of official foreign trade data on organic sales, Pascal Liu, Commodities Specialist, The Food and Agriculture Organization, has interviewed trade and industry figures and reviewed available sources to develop a perspective on the current market situation and medium-term prospects for fresh organic citrus and juices. Information presented here is based on his May, 2003 paper on World markets for Organic Citrus and Citrus Juices, available at http://www.fao.org/es/ESC/common/ecg/28303_en_CitrusorganicEN.pdf. This fact sheet summarizes the above FAO publication as a general

aid to Florida organic citrus growers and others in assessing their export potential for international markets.

Fresh Organic Citrus Markets

World production of organic citrus in approximately 30 countries was about 600,000 metric tons (661,200 US tons or 14,693,333 90-lb boxes) in 2001, 0.6% of total citrus production. The European Union (EU) market for both certified organic fruit and vegetables was estimated at \$1.7 billion in 2002, with fresh organic citrus representing 5-7% of all fresh fruit and vegetable sales and 37% of all organic fruit sold. However, consumption of fresh organic citrus in the EU is still relatively low compared with overall fresh fruit use. Major constraints on additional market share include poor fruit quality and packaging, short shelf life, and inefficiencies in the marketing chain.

Major exporters of organic fresh citrus to the EU include Italy, Spain, Argentina, the U.S., and Greece. Brazil, Israel, Costa Rica, the U.S., Italy, Mexico, and Cuba are major exporters of organic citrus juice (Table 1).

1. This document is HS978, one of a series of the Horticultural Sciences Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: May 2004. Please visit the EDIS Web site at <http://edis.ifas.ufl.edu>.

2. James J. Ferguson, professor, Horticultural Sciences Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

According to 2001 FAO reports, Italy is the main supplier of fresh organic citrus for the EU, producing 222,000 metric tons (244,644 US tons or 5,436,533 90-lb boxes) of fresh organic citrus (oranges, tangerines, lemons) on approximately 10,800 ha (266,868 acres) in Sicily and Calabria. Spain produced 25 to 30,000 metric tons (27,550 - 33,060 US tons or 612,222 - 734,667 90-lb boxes) on 900 ha (2,224 acres) in Andalusia. Together, Italy and Spain supply over 95 percent of the fresh organic citrus consumed in the EU. The remaining 5 percent is imported from Mediterranean countries like Morocco (primarily oranges), Israel (primarily grapefruit), Argentina, South Africa, the USA, and Uruguay, especially during the EU off-season when citrus-producing member countries are not shipping fresh fruit.

Although there is potential for expansion in this market, additional land in Brazil and Italy, totaling 13,376 ha (32,102 acres), is being converted to organic citrus production, with the potential for oversupplying markets. Other import constraints include a 10.4 percent ad valorem tariffs on imported fresh oranges, internal EU marketing and organic certification agreements, and an underlying assumption that EU organic certification programs are more strict and reliable than those of other countries.

Selected EU countries in this survey imported approximately 53-55,000 US tons of fresh organic citrus in 2000, with Germany, France, the UK, and Austria being major importers (Table 2). Germany is the largest single market for organic foods in the EU and the second largest in the world, with Austria and Denmark having the highest per capita consumption of organic products in general. The fresh citrus import market in the Netherlands is unique in that this country is a key entry point, re-exporting imported citrus to other EU countries, partially due to less complicated organic import procedures than other EU countries.

Prices for fresh EU organic citrus vary with seasonal availability of fruit, market location, and type of retail outlet. Prices for imported citrus are generally higher during the off-season for EU citrus production. Fresh organic citrus sells, on average, for

65 percent higher than conventionally grown citrus but premiums range from 17 percent in Greece to 144 percent in Finland. Organic citrus is also cheaper in countries where a substantial share of organic produce is sold in supermarkets rather than smaller health food stores.

Market Prospects

Consumption of organic citrus still remains low in the non-citrus producing countries within the EU. However, the integration of ten more central and eastern European countries into the EU in 2004 could increase markets. Decreasing prices along with increased production, and improved post-harvest and market efficiencies could also increase consumption. However, with Italy and Spain remaining the main supplier of organic citrus in the EU, other marketing opportunities will fall to those with preferential trade agreements with the EU, with fruit available from May to September when EU produced supplies are low and for organic grapefruit and limes. Temperate climate countries with already established large organic markets like the UK, Germany, and Austria may also remain good import markets, as could countries with small but growing organic markets like France and the Scandinavian countries.

In the 1999-2000 season, 35 percent of all Florida grapefruit was exported to Japan. However, until the adoption of legislation defining organic standards under the Japanese Agricultural Standard (JAS) in 2000, it has been difficult to assess the Japanese market for imported organic citrus, primarily grapefruit. Phytosanitary restrictions, JAS organic standards, and high ad valorem tariffs have also limited imports of fresh citrus, currently about 0.1 to 0.2 percent of the total citrus market. Given its large population with a relatively high per capita income and focus on health concerns, conservative estimates predict Japan's organic market for fresh organic citrus fruit could grow to mature market potential of 3 to 5% of the total citrus market by 2010.

Organic Juice Markets

The major organic citrus juice market is for orange juice, with recent sales for Not From Concentrate (NFC) increasing more than for Frozen

Canned Orange Juice (FCOJ). Smaller markets also exist for grapefruit juice produced in the USA, Cuba, and Israel and lemon juice in Argentina and Spain (Table 3).

The main markets for all organic fruit and vegetable juices combined are the UK, Germany, Italy, France, and Scandinavian countries, with retail sales increasing more than 20 percent per year since 1998. The present EU market for organic juice in general is only 0.57 percent of the total EU juice market. Organic citrus juice by itself accounts for only 0.3% of total citrus juice consumption within an average 2% market share for organic produce generally. This small current market share, combined with large supplies, decreasing prices, and increased availability in supermarkets, suggests considerable growth potential. Israel (5-6000 metric tons or 5,510 - 6,612 US tons), Brazil (1,500 metric tons or 1,653 US tons), the USA (1000 metric tons or 1,102 US tons), Costa Rica (1000 metric tons or 1,102 US tons), and Argentina (114 metric tons or 126 US tons) were the major NFC suppliers of NFC for the European Union in 2001-2002. Mediterranean countries, with closer proximity to EU markets than Florida or Brazil, have a decided advantage in exporting NFC organic juice to the EU.

Brazil is the largest supplier of FCOJ for the European Union, followed by the USA, Cuba, Israel, and Costa Rica. Highly competitive in the conventionally produced FCOJ market, Brazil is expected to maintain this lead in the organic FCOJ market. With additional acreage coming into production and considerable storage capacity, international organic citrus producers have anticipated significant growth in this market, without increased demand actually occurring yet. As a result 60 and 35 percent price premiums for FCOJ and NFC, respectively, in 2002 are declining and the market appears to be awaiting greater demand.

The major consideration, according to Pascal Liu, for Florida growers planning to ship to developed countries include:

- Ability to meet specific requirements of the target market (phytosanitary requirements, quantity and quality, packaging, consistency, and scheduling deliveries)

- Profit margins in terms of production costs and various price premium scenarios
- Targeted market tariffs and preferential market access agreements
- Target market acceptance of organic certification

Table 1. Main European Union suppliers of certified organic fresh citrus and juice in 2001.

Production Area	Estimated Production		Main Export Products		Industry status
	Metric tons	US or short tons (90-lb boxes)	Fresh fruit	Juice	
European Union	290,000	319, 580 (7,101,778)	oranges, tangerines, lemons	---	stable
United States	100 - 120,000	110,200 - 132,204 (2,448,889 - 2,938,667)	oranges	orange juice	output growing
Brazil	100,000	110,200 (2,448,889)	---	orange juice (FCOJ, NFC)	output growing
Costa Rica	50,000	55,100 (1,224,444)	---	orange juice (NFC)	output stable
Israel	15 - 20,000	16,530 - 22, 060 367,333 - 490,222	grapefruit	orange and grapefruit juices	output stable
Argentina	7,000	7,714 (171,422)	oranges, lemons	---	output growing
Cuba	6,000	6,612 (146,993)	---	conc. oranges and grapefruit juices	output growing
South Africa	4,000	4,408 (97,956)	oranges, grapefruit	---	output growing
Morocco	3-5,000	3,306 - 5,510 (73,467 - 122,444)	oranges	---	output growing
Mexico	not available	---	oranges, limes	orange juice	---

Source: Pascal Liu. 2003. World Markets for Organic Citrus and Citrus Juices

Table 2. Estimated net imports of fresh organic citrus in selected EU countries (2000).

Importing country	Exporting country	Metric tons	US or short tons	Equivalent 90-lb boxes
Austria	Spain, Greece, Israel	7-8,000	7,714 - 8,816	171,422 - 195,911
Belgium	-	500 - 1,000	551 - 1,102	12,244 - 24,289
Denmark	Spain, Italy	2,000	2,204	48,978
France	Italy, Spain, Israel, South Africa	9,000	9,918	200,000
Germany	Italy, Spain	13,000	14,326	318,356
Netherlands	-	7,000	7,714	171,422
Sweden	Spain, Italy	500 - 1,000	551 - 1,102	12,244 - 24,289
UK	Italy, Spain	8,000	8,816	177,718
Finland	Spain, Italy	500	551	12,244
Ireland, Luxembourg	-	500	551	12,244
Total		48 - 50,000	52,896 - 55,100	1,175,467 - 1,224,444

Source: Pascal Liu. 2003. World Markets for Organic Citrus and Citrus Juices.

Table 3. Estimated European Union imports of organic FCOJ in 2002.

Supplying country	Product	Imports	
		Metric tons	US or short tons
Brazil	orange	2,000 - 2,500	2,204 - 2,755
USA	orange and grapefruit	1,000	1,102
Cuba	orange and grapefruit	350	386
Israel	orange, grapefruit and mandarin	100	110
Costa Rica	orange	200	220
Argentina (2001)	lemon	28	31

Source: Pascal Liu. 2003. World Markets for Organic Citrus and Citrus Juices.