The market for southern hemisphere citrus has grown almost exponentially since the beginning of the 2000s, gaining more than a million tonnes. However, the growth rate of international trade seems to have slowed in recent seasons while the area under citrus has continued to increase in a fair number of producer countries. FRUITROP examines the dynamics of the main markets around the world to highlight the scope for development that still remains in a context of increased production and logistic costs.

Summer citrus

A report by Eric Imbert

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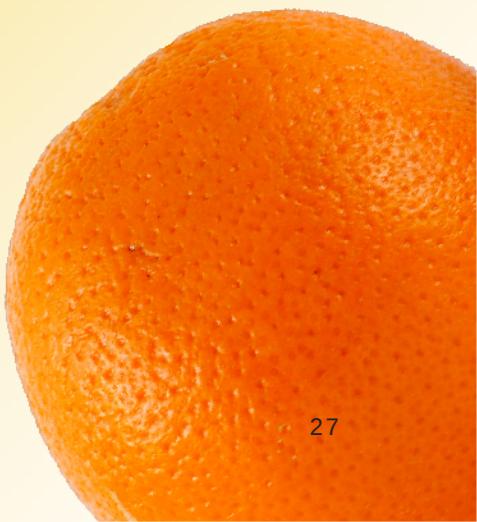

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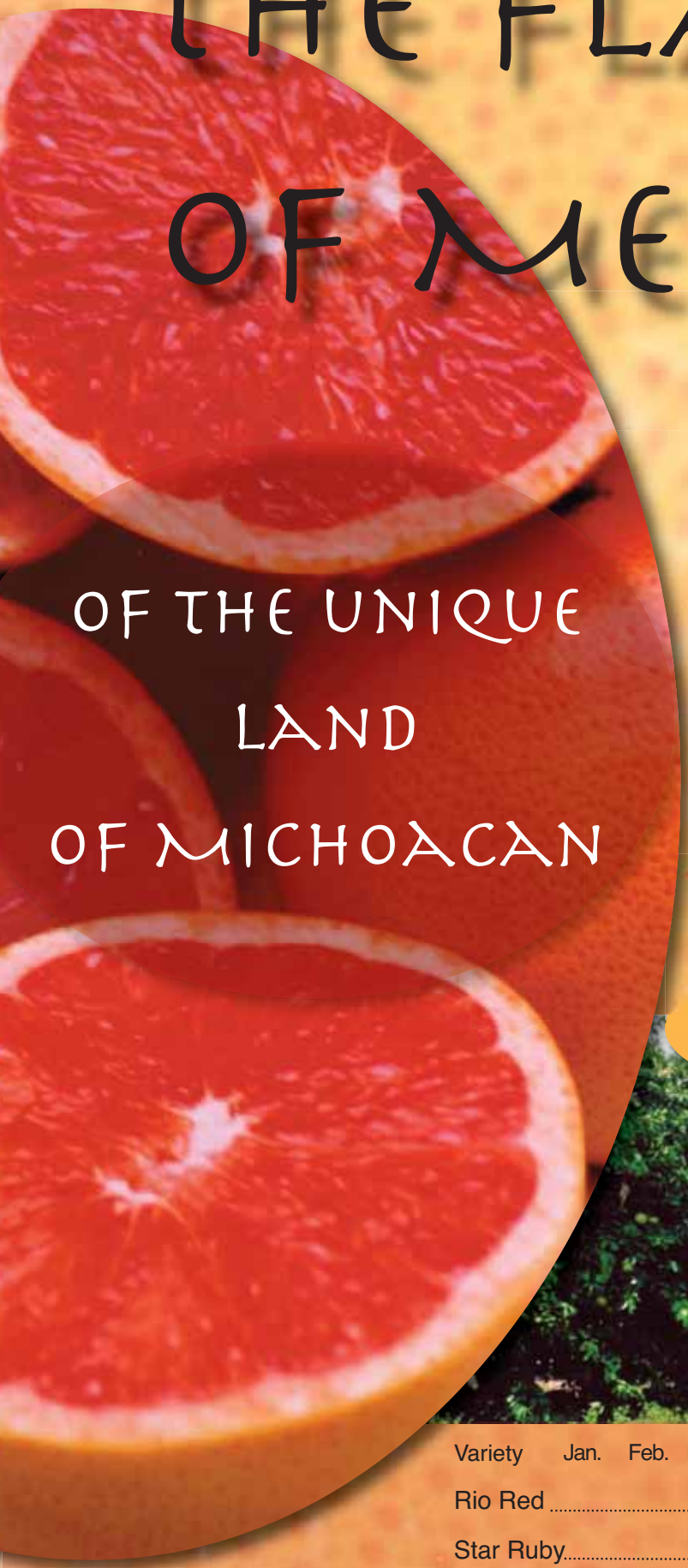
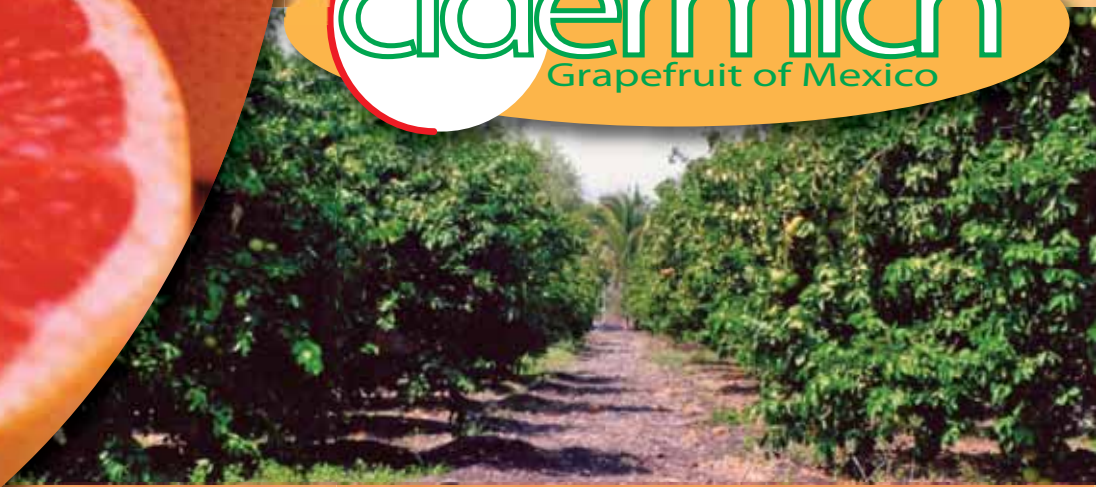


OF THE UNIQUE LAND OF MICHOACAN

cidermich
Grapefruit of Mexico



Variety	Jan.	Feb.	March	April	My	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Rio Red												
Star Ruby												
Ruby Red												

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Martine Duportal

Summer citrus market

In search of value-added

Citrus — The 10 leading exporters in the World and the main ones in the southern hemisphere

Position in world classification		Exportations (000 tonnes)
1	**Spain**	3 200
2	**South Africa**	1 385
3	**China**	1 000
4	**United States**	1 000
5	**Turkey**	900
6	**Egypt**	825
7	**Argentina**	660
8	**Morocco**	530
9	**Mexico**	520
10	**Pakistan**	270
14	**Australia**	140
15	**Uruguay**	135
16	**Brazil**	110
17	**Chile**	100
24	**Peru**	55

Sources: FAO, professionals, average for 2008-09

Citrus — The 10 leading producers in the World and the main ones in the southern hemisphere

Position in world classification		Production (million tonnes)
1	**China**	21.5
2	**Brazil**	20.9
3	**United States**	10.9
4	**Mexico**	7.3
5	**India**	7.0
6	**Spain**	5.6
7	**Iran**	3.8
8	**Italy**	3.6
9	**Nigeria**	3.4
10	**Egypt**	3.2
12	**Argentina**	2.7
13	**Indonesia**	2.5
15	**South Africa**	2.2
20	**Peru**	0.8
24	**Australia**	0.6
32	**Chile**	0.3
34	**Paraguay**	0.3
35	**Uruguay**	0.3

Sources: FAO, professionals, average for 2008-09

20% of all citrus trade, but large volumes change hands

Climatic necessity means that international trade in citrus fruits is based on southern hemisphere production during the period running roughly from May-June to September-October. This 'summer' or 'counter-season' market in the major northern hemisphere countries forms only 20% of world trade in citrus evaluated at 12.3 million tonnes in 2008-09. However, the volume involved—averaging 2.4 million tonnes each year—is far from marginal. To see it in perspective, it exceeds world trade in stone fruits or all exotic fruits, including pineapple.

More limiting geography and soil and climate conditions

The size difference between the 'summer' and 'winter' markets is explained first of all by very seasonal international demand, as is illustrated perfectly by the functioning of the southern European markets illustrated below. However, other supply-related factors are involved. The southern hemisphere has less land area and accounts for a little less than 30% of world production. Furthermore, a large proportion of the area under citrus is north of the Tropic of Capricorn where climatic conditions and the resulting pressure from phytosanitary problems mean that the sanitary and organoleptic (especially colour) standards required by an increasingly demanding international market are not usually attained. In the southern hemisphere, the degree of latitude is a gauge of competitiveness in terms of quality and a key for not suffering from sanitary restrictions limiting access to the world's major markets! The major producer countries in the tropics therefore devote their crops more to processing or the domestic market. The 20 million tonnes harvested annually in Brazil, the regional champion and the second-largest producer in the world, supplies concentrated orange juice factories. The 2.5 million tonnes grown in Indonesia is sold on the domestic market.

Two major supplier countries...

The countries involved in the market can thus be counted on the fingers of a single hand. South Africa, with a market share of some 55%, has an ultra dominant position. It has achieved this by using the competitiveness of a range that is complete, of high quality and very diversified in oranges and easy peelers and a very large client portfolio. Producers use good organisation and technical skill to make the most of the comparative advantages of South Africa's climatic diversity. The climate is subtropical in the north and Mediterranean in the south, where pest and disease pressure is much smaller than in most competing countries. Argentina is second in the list, controlling about 25% of the world market. The soil and climate advantages of the Tucuman region in the north-west and growers' know-how have enabled the country to become the world's leading lemon producer to supply a growing world market for concentrated juice. Outlets were diversified in the 1990s and Argentina gained the position of leading supplier of the world trade in counter-season fresh lemons. This now forms 55 to 60% of citrus exports; the other major citrus fruits in the range (oranges and easy peelers) are grown in the north-east where the climate is hot and humid and the fruits are not as competitive as lemon.


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...and a small number of secondary sources

The four other supplier countries cover only 20% of world trade. Although their production is moderate, the few large Uruguayan operators play a significant role on the European orange and easy peeler market. Australia is still a major player but tending to slow down in spite of the often excellent quality of the 'Navel' oranges grown in the south and the easy peelers from Queensland. Handicapped by high production costs, exporters are tending to lose ground in

Citrus — Southern hemisphere — Trend in planted areas

	Argentina		South Africa		Uruguay		Argentina + South Africa + Uruguay		
hectares	Area in 2008	Trend 2006-08	Area in 2008	Trend 2006-08	Area in 2008	Trend 2006-08	Total area	% of area in relation to that of the southern hemisphere	Trend 2006-08
Orange	49 391	- 1 497	38 683	+ 1 051	7 599	+ 1 147	95 673	64%	+ 701
Easy peelers	35 793	- 18	5 033	+ 349	6 424	+ 580	47 250	68%	+ 911
Grapefruit	10 427	- 703	9 166	+ 715	302	+ 32	19 895	69%	+ 44
Lemon	43 844	+ 1 647	4 426	+ 18	1 821	+ 64	50 091	85%	+ 1 729
Total	**139 455**	**- 571**	**57 308**	**+ 2 133**	**16 146**	**+ 1 823**	**212 909**	**69%**	**+ 3 385**

Sources: FEDERCITRUS, CGA, DIEA

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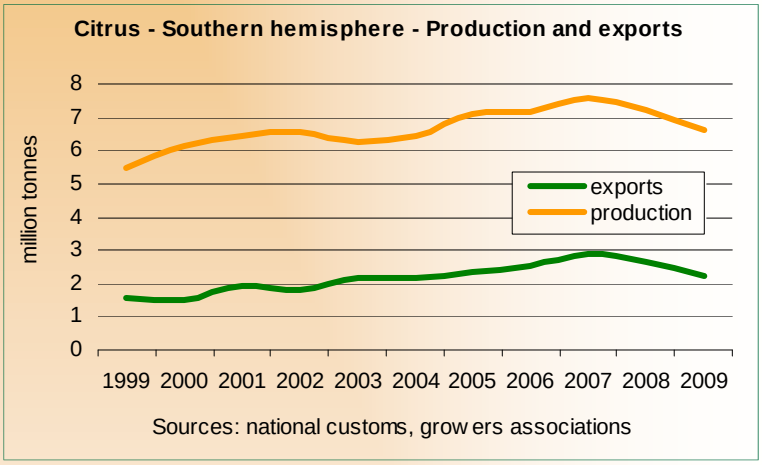

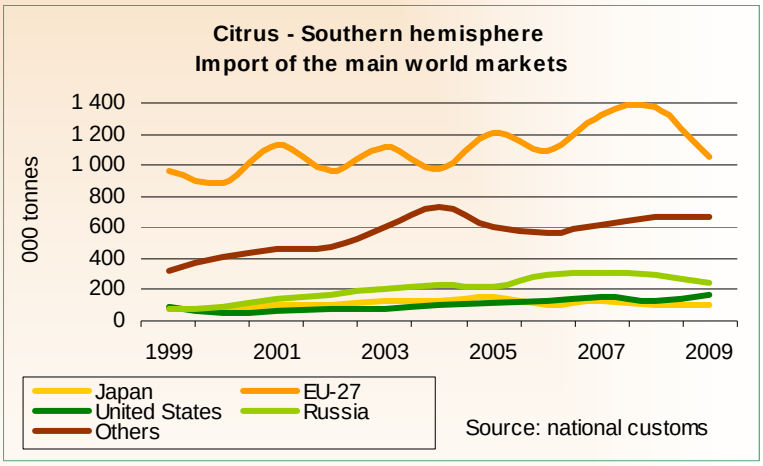

Citrus — Southern hemisphere — Production			
tonnes	**Movement of production** (average 2003-04/2006-07*)	**Movement of trade** (average 2003-04/2008**)	**Exported proportion of additional production**
Orange	560 000	230 000	41%
Petits agrumes	25 300	43 200	171%
Pomelo	140 000	11 000	8%
Citron	280 000	125 000	45%
Total	**1 005 300**	**409 200**	**41%**

* 2006-07: last normal season for Argentina / ** 2008: best year for southern hemisphere exports
Professional sources

the face of increasing competition from other sources on their traditional markets Asia and the United States.

Furthermore, two outsiders in Latin America—Chile and Peru—entered the international scene in the 2000s. With production know-how gained for supplying their domestic markets and possessing infrastructure and knowledge of export markets, the two countries ship moderate but strongly increasing volumes to the US market. Brazil, penalised by a climate with a negative effect on fruit colour, is not a major player but occasionally ships oranges.

Although they are in the northern hemisphere, Mexico, Honduras and Cuba play a role on the summer grapefruit market. Although Honduras and Cuba have phytosanitary and climate problems and are tending to lose ground, Mexico is experiencing development thanks to production in the Yucatán and the emergence of large orchards devoted to export fruits in the Michoacán.

Increasing production

The southern hemisphere producer countries displayed strong, rapid growth of some one million tonnes from 1999 to 2007, reaching 7.5 million tonnes. The decrease observed since 2008 seems to be conjunctural and related to a considerable degree to repeated meteorological problems in Argentina, one of the main producers: frost in July 2007 and September 2009 combined with serious drought. Furthermore, cultivated areas seem to be practically stable in Argentina, with increased lemon and, to a lesser degree, easy peelers, making up for the decrease in orange and grapefruit. Southern hemisphere production should resume in the medium term. In addition to the increase in lemon production in Argentina noted above, the southern hemisphere orange harvest should continue to increase, driven in particular by Uruguay and South Africa. Furthermore, easy peeler production—late hybrids in particular—should also increase, with new orchards in Peru whose are is difficult to measure and renewed planting in South Africa and Uruguay.

Where will these additional volumes be sold? The question is particularly relevant as production has increased much more strongly than trade, especially for grapefruit, orange and lemon (see table). Production increased by approximately a million tonnes from 2003-04 and the last years of normal harvests (2006-07), whereas the international market gained some 400 000 t with reference to 2008, the best export season. Will processing and domestic sales be such as to take the balance of the increasing volumes? **FruiTrop** provides a tour of


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the various counter-season markets for fresh citrus.

The European Union, a major but lack-lustre leading market

The EU was the founder of the international summer citrus trade and is still by far the leading destination for southern hemisphere fruits. The 1.0 to 1.2 million tonnes received each year forms two-thirds of total world exports. Nevertheless, volumes have remained practically stable since the beginning of the 2000s, seemingly indicating that the growth period is over. Sluggishness is obvious for grapefruit, with even a few worrying signs of a consumption decrease during the 2009 season. The situation is hardly any brighter for orange. The usual annual 550 000 to 600 000 t is only exceeded when there is a shortfall in the orange harvest in the northern hemisphere—the case of Spain in 2008—or a shortage of competing seasonal fruits, as in 2007. Two exceptions should be mentioned: first the easy peeler market, but this has a narrow geographic focus on the United Kingdom, and second the lemon market, where 'Eureka' from the southern hemisphere is tending to gain some of the market share of Spanish 'Verna', a variety penalised by its external appearance.

Increased competition from northern hemisphere crops

The tendency for seasons to become longer in northern hemisphere producer countries is complicating the work of exporters shipping fruit to the EU market. Facing very serious problems of profitability, Spanish growers are tending to reduce their easy peeler production capacity during the overloaded period from November to January and shift to periods during which there is still room for growth. This strategy—described in FruiTrop since 2006—has become reality for oranges. The planting of more than 3 million trees in 2004-05 and 2005-06 (mainly 'Lanelate' and 'Powell') is beginning to enable Spain to supply the table orange market until the end of June. This longer season was distinct in 2009 when it was very difficult for southern hemisphere 'Navel' oranges to gain a foothold on the market. A similar pattern is emerging for easy peelers. The arrival in 2010 of the first triploids ('Garbi' and 'Safor') and other classic hybrids such as 'Murta' will allow a similar

Citrus — Southern hemisphere
Apparent consumption on the world's major markets

kg per person	USA	EU-27	Japan	EU-15*	EU-12**	Russia
Population (million inhab.)	**305.7**	**500.3**	**127.3**	**375**	**104**	**142**
Orange	0.09	1.24	0.21	1.62	0.32	0.89
Easy peelers	0.19	0.35	0.02	0.39	0.09	0.33
Grapefruit	0.01	0.27	0.45	0.34	0.19	0.16
Lemon	0.06	0.56	0.14	0.70	0.59	0.50
Total	**0.34**	**2.42**	**0.82**	**3.05**	**1.19**	**1.88**

* Extra-EU imports from the southern hemisphere - re-exports to EU-12 (June to Sept.) - exports (June to Sept.) / ** Extra-EU imports from the southern hemisphere + releases from EU-15 (June to Sept.) - exports (June to Sept.) / Source: customs


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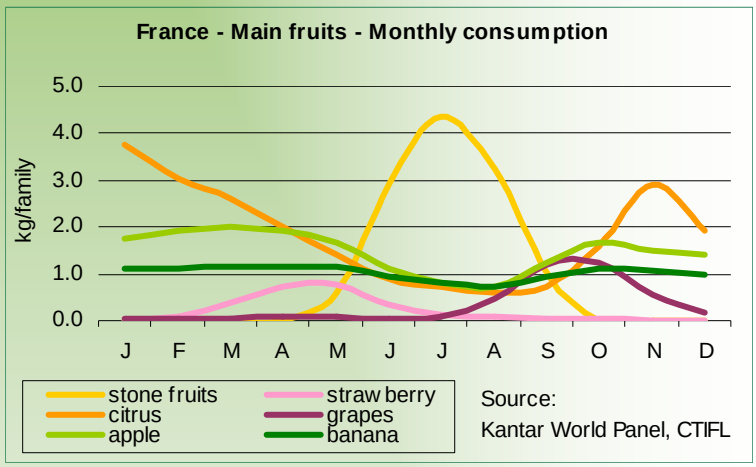

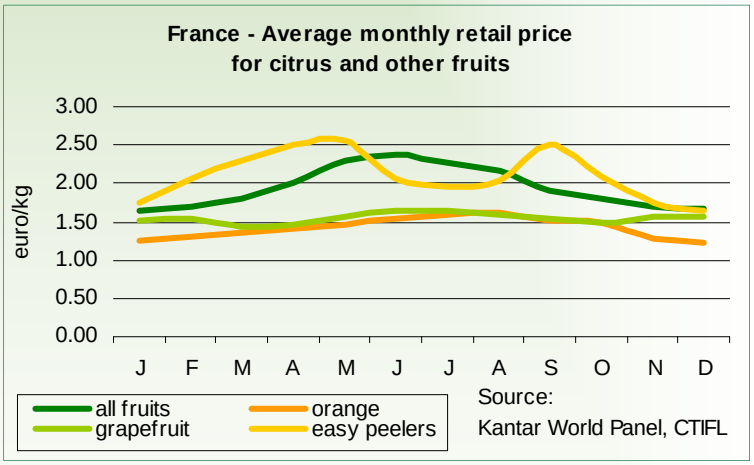

Citrus — Comparison of average monthly summer consumption (June to September) and winter consumption (October to May) in certain EU-27 countries

	Orange	Lemon	Easy peelers	Grapefruit	Total
Czech Rep.	10%	35%	4%	15%	11%
Hungary	4%	41%	2%	17%	11%
Poland	8%	33%	3%	31%	13%
United Kingdom	51%	59%	27%	53%	42%
France	22%	44%	2%	36%	17%
Germany	21%	53%	2%	19%	17%

Source: EUROSTAT

lengthening of the season. They will overlap the early varieties (especially 'Satsuma') shipped by southern hemisphere producer countries. Likewise, late lemon production could recover a little in Spain. Today, there is no alternative to the 'Verna' variety, with its poor appearance and yields. However, some growers are top-grafting 'Fino' groves with 'Verna' as it is finally more profitable and less under fire from low-cost Turkish competition.

Very rigid consumption patterns favourable for seasonal fruits in southern Europe

The positive or negative impact of seasonal fruits has been clear in recent years. The effect has been particularly strong on certain markets like France, a large stone fruit producer. Citrus consumption in the summer is a quarter of that of the main winter season months. Retailers' shelves are dominated by peaches, nectarines and apricots, where citrus fruits would be seen in the winter (see graph). Nevertheless, in contrast with competing seasonal fruits, the prices of citrus fruits are more attractive ion the summer than in the winter. For example, the difference in the prices of oranges and other fruits increases from less than EUR 0.40 per kg in winter to more than EUR 0.70 in the summer. This shows that the price argument is not a powerful lever for sales in France. This consumption pattern featuring the very strong influence of the season's fruits seems very rigid and common to the major producer countries in southern Europe (France, Spain, Italy and Greece).

More open northern European markets

Fortunately for southern hemisphere citrus producers, consumption habits are different in northern Europe. The United Kingdom is a particularly interesting case as the consumption of southern hemisphere citrus fruits is 2.5 times that of a country like France and is over 40% of that of the winter period. This example shows the development capacity of markets where domestic production is little present in the summer (northern Europe). Promotion is probably a powerful tool and a way of tapping any remaining scope for growth on these markets where the consumption model seems more 'plastic'. In this context, why not apply the recipe elsewhere? The consumption difference between the British market and the northern European markets shows that there is still considerable

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potential for growth. The campaign launched this year by the CGA in the United Kingdom and Germany is undoubtedly an excellent example to follow.

An increase in certain summer fruit crops

Might promotion become an essential tool for countering increasing pressure from competing fruits? The question can be asked. The development of new stone fruit orchards in Spain and Italy might indicate that the southern European consumption pattern could spread to the other EU countries in the medium term. Production of ultra-early (April) peach and nectarine should not increase much for lack of a positive response from consumers. In contrast, the European market should be more amply supplied during the heart and the end of the season, with the considerable increase in planted areas in Catalonia. A similar trend is starting for apricot. The distribution of new varieties for a longer harvest calendar has re-launched plan-

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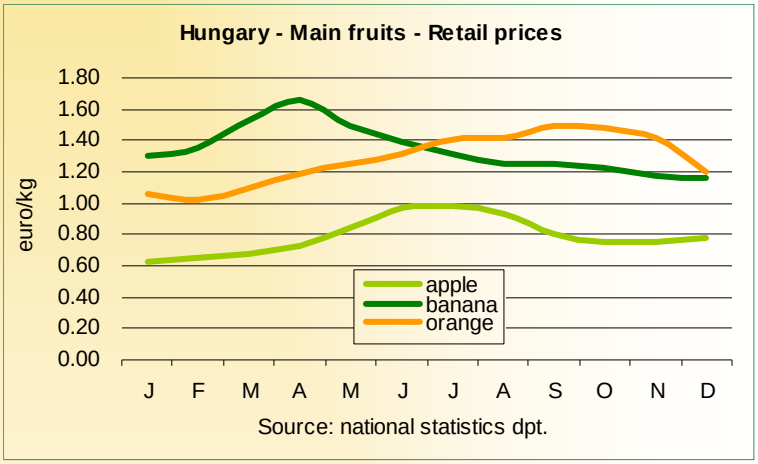
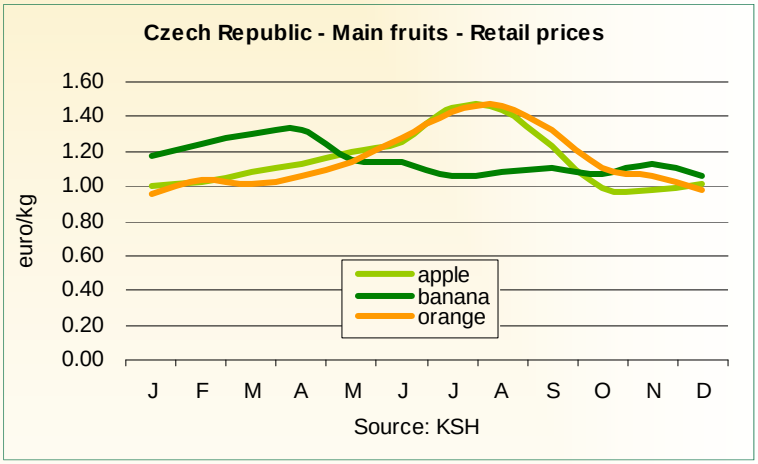
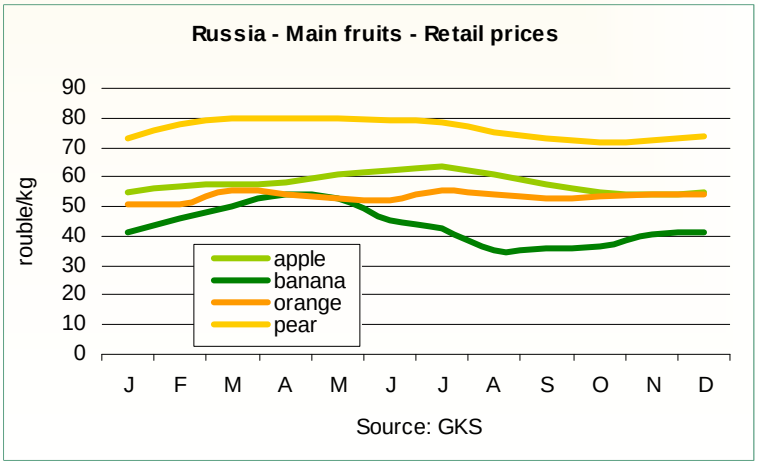
tations in Italy and especially in Spain. This is a very recent phenomenon but should be closely monitored. An excellent snack fruit, high-quality widely grown apricots could become the 'summer banana'.

Nothing new on the eastern front

Twelve new EU members with over 100 million consumers has not added sparkle to the southern hemisphere citrus market. Annual consumption is estimated to be about 120 000 t (1.2 kg per person to year), about 40% of that of EU-15. The reason for such a difference on these markets with an 'intermediate' standard of living seems to be a more marked impact of competing produce and especially of the difference in the price between these fruits and citrus. Apples are widely grown in Poland, Hungary and Romania and are very competitive in the summer (see graph). The other summer fruits such as red fruits in Poland and plums are also likely to have a strong impact. Likewise, some imported fruits are much more competi-







Note: average for 2008-09

tive than oranges in the summer. This is the case of banana, with generally very attractive prices at this time of year because sales are poor in western Europe. Oranges thus become less competitive and even become expensive on some markets like the Czech Republic (see graph). Playing on retail prices is probably a powerful tool for increasing sales. However, the level of some EUR1.00 per kg to join competing fruits might not be compatible with cost prices.

Russia: strong market potential but hit hard by the economic downturn

Unlike those of the other eastern European countries, the Russian market has been very dynamic in recent years. Counter-season citrus imports more than tripled from the end of the 1990s to 2006, when the total exceeded 300 000 t. Although the situation in terms of GDP is no better than that in the eastern European countries that have joined the EU and banana is a very aggressive competitor in the summer, the retail price of oranges has not increased markedly, remaining level throughout the year. In addition, Russians often own their homes and can spend a larger proportion of income on food than in some neighbouring countries (see graph). Finally, the port of St Petersburg is a major entry point and may also play a major role. However, the world economic crisis has strongly affected the market, with the latter losing more than 50 000 t in 2009. On the one hand, the plunging rouble has made all imported fruits more expensive. On the other, the financial fragility of some major importers has increased the risk of bad debts and encourages exporters to be cautious. However, improvement in the economy with 4% growth in GDP forecast for 2010 and consumption still 40% less than that of EU-15 (1.88 kg per person per year in comparison with more than 3.00 kg) indicate that market growth should resume rapidly.

Ukraine, a large neighbouring market with a population of 46 million people, also displays excellent dynamics. However, the standard of living is low and import volumes are still fairly small at an annual 30 000 to 40 000 t, mainly from Argentina and South Africa. The per capita income estimated by the IMF to be USD4 000 in 2008 is small in comparison with that of the other countries in the region (USD14 000 in Russia for example). It will probably take many years of strong economic growth for the market to express its considerable potential.

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Citrus — United States Average annual consumption: 2007-08/2008-09					
000 tonnes	**Production sold fresh**	**Import**	**Export**	**Available**	**Consumption kg/person/year**
Orange	1 813	85	547	1 351	4.4
Grapefruit	669	13	254	428	1.4
Lemon	424	43	113	354	1.2
Easy peelers	350	116	30	435	1.4
Total	**3 255**	**257**	**944**	**2 568**	**8.4**

Sources: USDA, US customs

Citrus — United States Exports from June to September (California)					
tonnes	**2005**	**2006**	**2007**	**2008**	**2009**
Orange	**91 151**	**76 760**	**38 517**	**94 902**	**62 758**
Canada	19 321	19 180	12 806	23 522	18 128
Hong Kong	18 347	13 795	8 264	15 302	12 300
China	11 061	6 691	4 059	13 761	9 065
Japan	6 627	16 560	1 006	12 651	4 630
Malaysia	8 546	4 224	1 415	4 701	4 000
Mexico	10 598	4 736	5 978	6 012	3 911
Grapefruit	**9 538**	**18 324**	**11 167**	**10 037**	**9 086**
Canada	4 356	6 090	5 411	5 421	4 800
South Korea	458	910	1 324	968	1 912
Japan	759	9 292	3 621	1 869	1 283
Easy peelers	**215**	**223**	**218**	**149**	**179**
Canada	198	139	87	114	123
Lemon	**21 158**	**16 467**	**15 029**	**28 282**	**16 454**
Canada	8 766	6 992	5 678	10 630	7 050
Japan	9 472	6 913	6 212	13 398	5 498
Hong Kong	1 250	479	196	514	1 903
South Korea	1 057	1 345	1 375	2 491	1 087
Total citrus	**122 063**	**111 774**	**64 931**	**133 371**	**88 476**

Source: US customs

United States: large consumption potential...

There is currently no large market in the richest countries outside Western Europe. US imports of southern hemisphere citrus fruits hardly exceed 150 000 t, that is to say less than 500 g for each of the 300 million inhabitants! This small development is caused by a feature of Californian production. California accounts for some 30% of US citrus production and covers most of domestic supply and although it is in the northern hemisphere, significant volumes of lemons, grapefruits and 'Valencia' oranges can be marketed in the summer. But it is clear that the market has a very large growth potential. Annual per capita consumption is estimated to be between 8 and 9 kg, much smaller than in the EU and even tiny for a producer country. In comparison, the figure is about 25 to 30 kg in Spain and Italy.

...but closely controlled!

The reasons? Californian growers have particularly high production costs and want to protect their territory. Sanitary regulations applicable to produce from third countries are still very restrictive, especially for the prevention of black spot and fruit fly. Thus, only produce from certain regions of South Africa (Western Cape and some parts of Northern Cape), Australia (Riverland, Sunraysia and Riverina), Peru and Chile (easy peelers only) is allowed entry today. These measures considerably limit the export potential and considerably increase cost prices.

Might greening in California change the situation?

The arrival of the Asian form of greening may well cause changes. The risk of occurrence is very high. The psyllid vector is already present and the bacterial disease has spread rapidly to neighbouring Mexico where it was detected in late 2009 in Nayarit and Jalisco states, about 1000 km from the US border. Orange production has decreased by a third and grapefruit production by half in Florida where the disease appeared in 2005. The long-term forecasts drawn up by FDOC are even more disturbing, showing that the decrease will continue unless a remedy is found quickly. In addition to decreased production, the additional costs involved in the removal of infected trees and psyllid control already form a difficult shock for a sector that already displays economic fragility because of questions of the cost and availability


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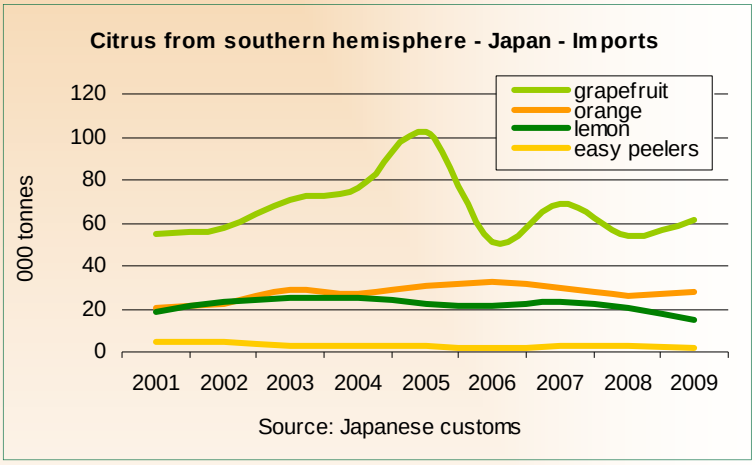


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of labour and water. A Florida estimate talks in terms of a 40% cost increase (+ 400 USD/ha). This situation could lead to broader market opening or the radicalisation of California growers whose position is even more delicate. This would also change the situation on certain Asian markets (Japan, South Korea and Hong Kong) and Canada, to which California exports an estimated 600 000 tonnes to 1 million tonnes each year, with 90 000 to 130 000 t shipped from June to September.

Japan: a 'small' single produce market that is difficult to develop

The hardly more than 100 000 t imported by Japan is a very small quantity. Grapefruit apart, annual citrus consumption per person is extremely small. However, the scope for development appears to be limited in the medium term. In fact, all varietal groups lost ground even before the economic downturn hit most of the markets in the world. There was even a decrease in sales of grapefruit, the leader that forms the bulk of imports. Displays were reduced in winter 2004 because of the drop in Florida production and no longer achieve their former scale in the summer. The sanitary protection measures in force together with the extremely conservative nature of a large section of Japanese society leave doubts as regards any rapid growth capacity of this market.

25 to 30% of volumes sold on the other world markets

The markets in the major developed countries are not the only ones. Summer citrus consumption is high in other countries in Asia and the Middle East. Our estimates based on the difference between cumulated exports from source countries and cumulated imports by the large northern hemisphere markets (EU, United States, Japan and Russia) show that these other destinations probably import 630 000 to 640 000 t each year, that is to say 25 to 30% of the world citrus trade.

A fine trend in the Middle East

Handling some 280 000 t per year, the Middle East is the leading market by volume in this category and is growing significantly, having gained 70 000 to 80 000 t from 2005 to 2009. Although the large Saudi Arabian market


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seems to be comparatively stable, imports by the United Arab Emirates are growing considerably, making this group of countries the largest market in the region. The market is also growing in Kuwait although smaller volumes are involved. In both cases, this development is driven by South Africa, the leading source way ahead of Argentina, which in turn is followed by Uruguay and Australia. But the varietal range is limited and consists practically only of oranges. Easy peeler imports are growing but still extremely marginal.

Other Asian countries: large but stable markets, with a few exceptions!

Japan apart, the Asian markets import large but fairly stable volumes estimated to total about 200 000 t, that is to say a little less than 10% of the world citrus trade. This is the case of Hong Kong (about 80 000 t), Malaysia (about 40 000 t), Singapore (25 000 to 30 000 t) and Indonesia (15 000 to 20 000 t). Australia and South Africa share these markets that are mainly purchasers of oranges, with supply completed by some batches from Argentina. However, China and South Korea are both noteworthy exceptions, displaying good dynamics. With growing production and the stagnation of a number of traditional markets, South Africa and South American sources have sought to diversify their outlets by gaining new client countries. Not without effort as procedures to remove phytosanitary regulation barriers have been long. Although volumes are still limited, these populous markets form a large potential for development.

In search of markets where value-added is conserved

Which markets will be able to take the increasing production—especially of oranges, lemons and easy peelers—in the southern hemisphere countries? The emerging countries, that is to say states in Eastern Europe and the new markets in Asia and the Middle East undoubtedly provide large scope for development. But how profitable are they? Attractive selling prices will open up the doors to these markets more widely. Which southern hemisphere producer countries can afford to sell at low prices during a period of increasing cost price? The inexorable rise in oil prices already weighs heavily on sea and land transport costs and in farm inputs. The threat of Asian greening may further increase the bill in some directly threatened countries like Argentina. In such a context, it seems essential to step up efforts to develop the markets in rich countries. Re-launching promotion in Europe seems to be a key step in trying to use the margins for growth on the Northern European markets, to allow to the lengthening of the production calendar in the Mediterranean countries and perhaps, in the medium term, to guard against the increase in stone fruit production.

Broader opening of the United States market, that would seem to have very large potential for development, is undoubtedly a major line of approach. The switch from face-offs to a strategy of alliances between domestic growers and the import sector is probably a key to this. The example of the avocado market speaks for itself. The tools for promoting consumption and for market management set up by Californian growers and South American exporters by means of a special tax on each box sold has tripled the size of the market while conserving satisfactory financial returns. This is an example to be followed! ■

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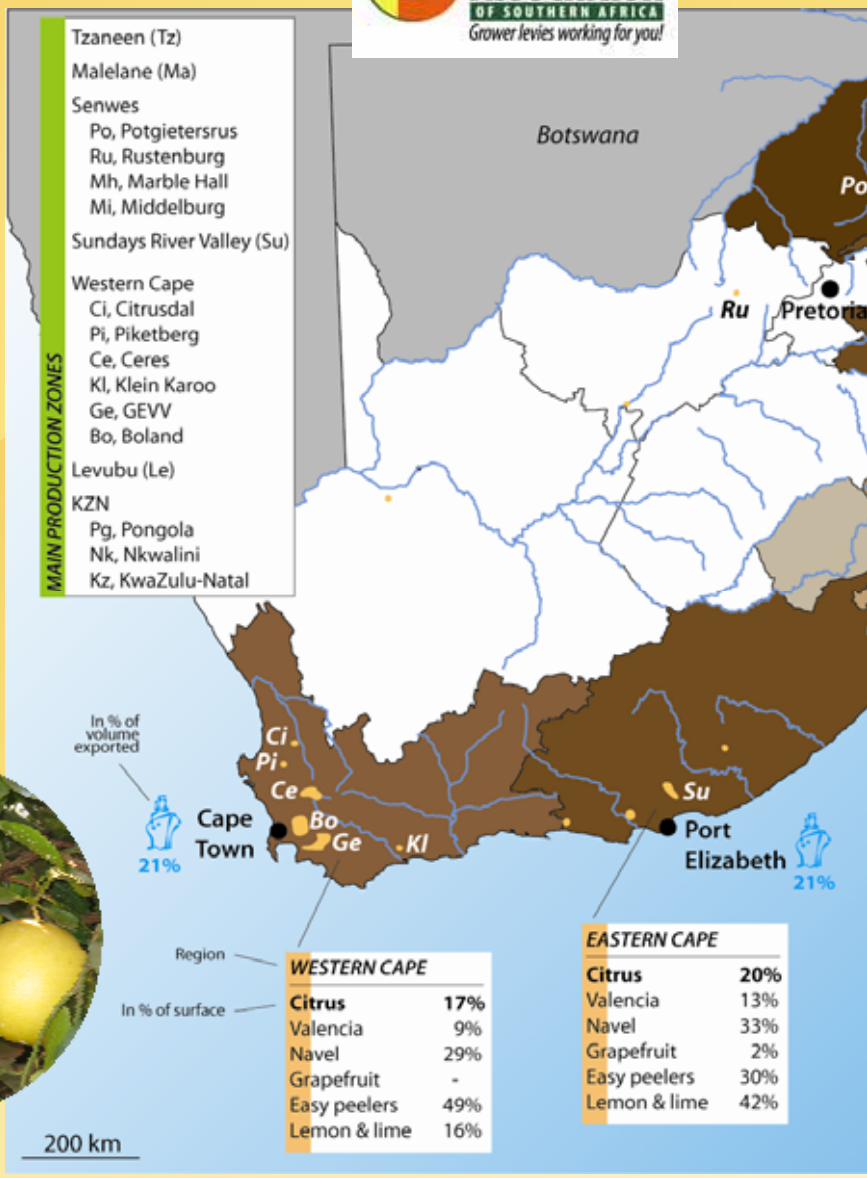
Summer citrus producer country sheet

South Africa

With long experience of production and export, South Africa controls more than half of the international summer citrus trade. The diversity of the country's climate and the know-how in the various parts of the chain have resulted in a broad range of high-quality fruits. 'Navel' oranges, easy peelers and lemons are grown mainly in the zones with a Mediterranean climate in the south of the country (Eastern and Western Cape). The northern, subtropical regions (Limpopo, Mpumalanga and Kwazulu-Natal) are specialised in 'Valencia' oranges and grapefruit. The sector has remained organised even though it was deregulated in 1997. In particular, the Citrus Growers Association manages research conducted by the CRI and marketing via the Citrus Marketing Forum. In addition, good technical mastery of production (irrigation, high density planting) and soil and climate advantages result in large yields of high-quality fruits, while labour costs are low. But pressure from pests and diseases is strong, especially in the north of the country where African greening, false codling moth and black spot are present. This weighs on costs and limits the possibility of exporting to certain markets. In addition, the government's policy of redistributing a proportion of resources to native populations is a challenge in terms of training and competitiveness. Production of oranges and later easy peelers is still increasing. More than 60% of the crop is exported, forming the pillar of sector profitability. Europe still has a central position but outlets are strongly diversified, with large volumes shipped to the Arabian peninsula, Japan and the United States.

Citrus Growers' Association OF SOUTHERN AFRICA
Grower levies working for you!

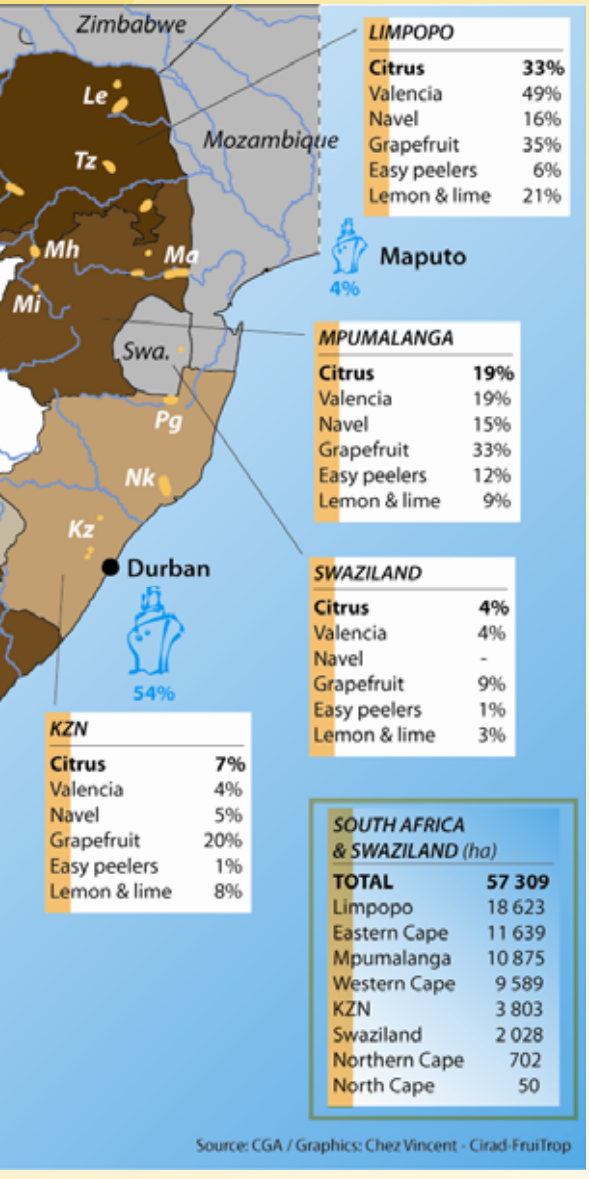


Production	2 220 000 t
Rank in SH* production	2nd
% of SH production	32%
Areas	57 309 ha
Average yield	38.4 t/ha

3 500 producers (of which 1 300 export fruit)
75 packing stations (10 major)
100 000 jobs in the sector

Citrus — South Africa — Production			
tonnes	Production		Trend since 2003-04
	in 2008-09	Percentage of SH production	
Easy peelers	157 069	17%	- 28 672
Orange	1 485 405	44%	+ 259 551
Lemon	221 996	11%	+ 19 823
Grapefruit	355 643	60%	+ 43 940
Total	**2 220 113**	**32%**	**+ 294 642**

Citrus — South Africa Outlets	
Export	63%
Domestic	7%
Industry	23%



Photos © Eric Imbert et Régis Domergue

Exports	1 340 000 t
Rank in SH exports	1st
% of SH exports	55%

Citrus — South Africa — Exports			
tonnes	Exports		Trend since 2003-04
	in 2008-09	Percentage of SH exports	
Easy peelers	100 333	30%	- 20 170
Orange	914 700	69%	+ 118 855
Lemon	134 722	25%	+ 27 811
Grapefruit	192 952	87%	+ 16 209

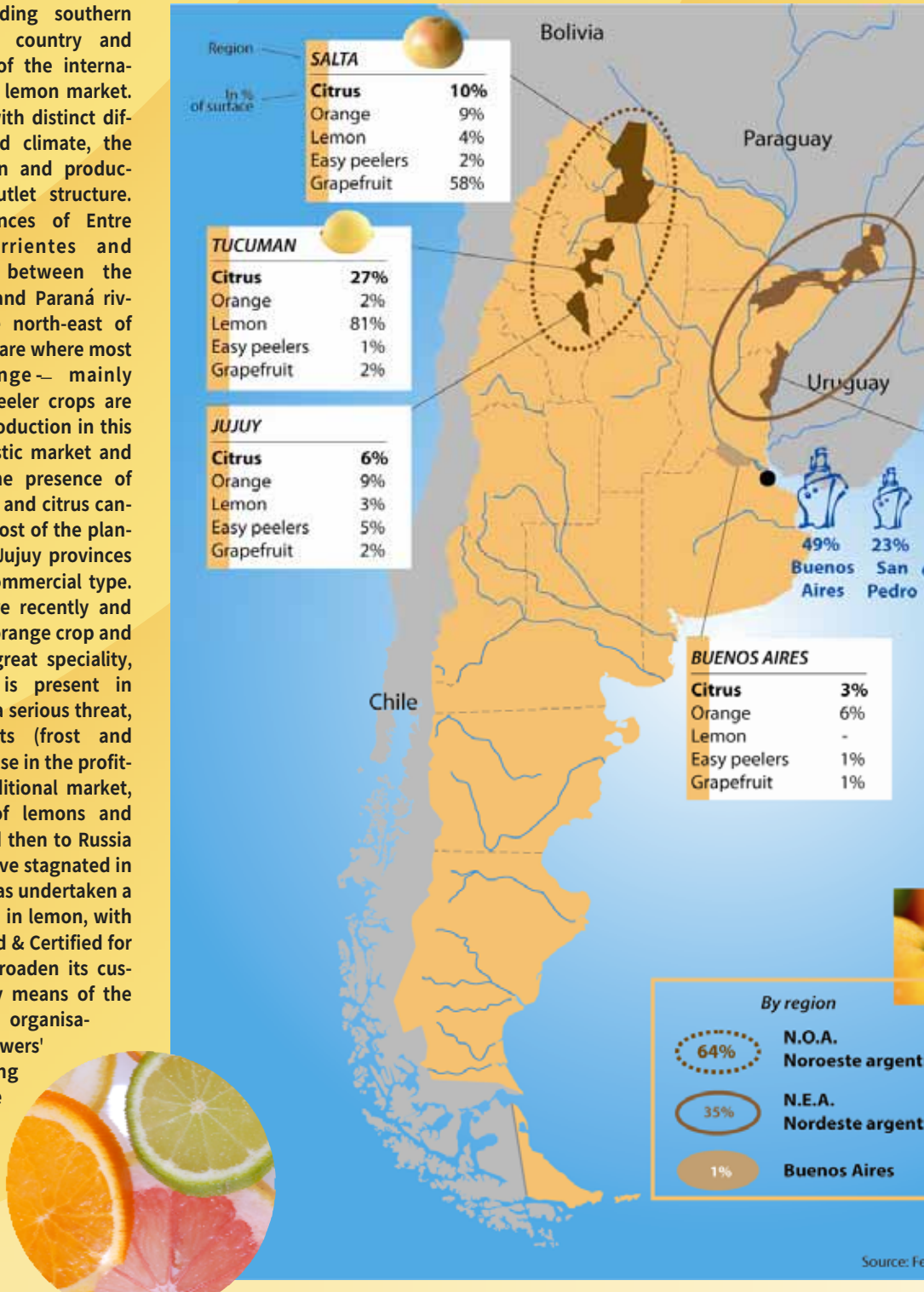
Citrus — South Africa — Major markets		
	Percentage of total citrus exports from South Africa	Proportion of SH citrus supplied by South Africa
United States	3%	24%
EU-27	49%	61%
Russia	10%	49%
Japan	6%	61%
Middle East	20%	na

*SH: southern hemisphere

Summer citrus producer country sheet

Argentina

Argentina is the leading southern hemisphere supplier country and controls some 60% of the international counter-season lemon market. Citrus is grown in two zones with distinct differences in soil and climate, the varieties grown and production and outlet structure. The provinces of Entre Rios, Corrientes and Misiones between the Uruguay and Paraná rivers in the north-east of the country are where most of the orange – mainly late – and easy peeler crops are grown. The main outlets for production in this traditional zone are the domestic market and the processing industry as the presence of quarantine diseases (black spot and citrus canker) limit export possibilities. Most of the plantations in Tucuman, Salta and Jujuy provinces in the north-west are of the commercial type. This zone was developed more recently and grapefruit, a proportion of the orange crop and above all lemon, Argentina's great speciality, are grown there. Greening is present in neighbouring Brazil and forms a serious threat, as do meteorological events (frost and drought). Experiencing a decrease in the profitability of processing, their traditional market, growers developed exports of lemons and other fresh citrus to the EU and then to Russia in the mid-1990s. Shipments have stagnated in recent seasons and the sector has undertaken a qualitative excellence approach in lemon, with a new label 'ALL LEMON - Tested & Certified for Export'. It is also seeking to broaden its customer portfolio, particularly by means of the lobbying body Federcitrus, an organisation that protects lemon growers' interests and works on reopening the United States market. The area under lemon is still increasing while that under orange and easy peelers is stagnating and grapefruit areas are decreasing.



Production (aver. 2008-09)	**2 650 000 t**
Rank in SH* production	1st
% of SH production	39%
Areas	139 800 ha
Average yield	19.0 t/ha

5 300 producers
442 packing stations (112 for export)
19 juice production facilities
100 000 jobs in the sector

Citrus — Argentina — Production

tonnes	Production in 2008-09	Production Percentage of SH production	Trend since 2003-04
Easy peelers	347 815	38%	- 80 875
Orange	801 271	24%	+ 85 501
Lemon	1 281 095	64%	- 7 141
Grapefruit	221 848	37%	+ 41 162

Citrus — Argentina — Outlets

Export	22%
Domestic	28%
Industry	43%

Photos © Eric Imbert et Régis Domergue

Exports	**610 000 t**
Rank in SH exports	2nd
% of SH exports	25%

Citrus — Argentina — Exports

tonnes	Exports in 2008-09	Exports Percentage of SH exports	Trend since 2003-04
Easy peelers	105 725	31%	+ 36 992
Orange	148 847	11%	- 2 345
Lemon	330 139	60%	- 19 192
Grapefruit	25 599	12%	- 7 987

Citrus — Argentina — Major markets

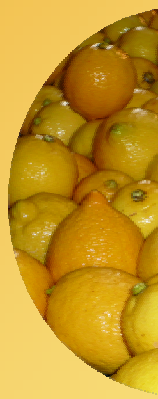
	Percentage of total citrus exports from Argentina	Proportion of SH citrus supplied by Argentina
United States	PR	PR
EU-27	64%	35%
Russia	23%	47%
Other countries from Eastern Europe	7%	-
Japan	PR	PR

PR: phytosanitary restrictions

*SH: southern hemisphere

Summer citrus producer country sheet

Australia



Citrus fruits are one of the main horticultural crops in Australia. Oranges, the main family grown, are grown above all in the temperate zones in the south-east around Murray river and its tributaries (the Riverland region in South Australia state, Sunraysia in Victoria state and Riverina in New South Wales). Easy peelers ('Murcott', 'Imperial', etc.) are another leading crop and are grown in the hotter, more humid zones in the north-east (Emerald region in Queensland). Lemons are grown in smaller volumes, mainly in Queensland and New South Wales. The rest of the citrus orchards are in Western Australia and the Northern Territory. The high quality of the fruits is recognised. However, water supply for agricultural is dwindling in the major production zones in south-east Australia. In addition, high wages and the fragmentation of the sector weigh on cost prices. The juice sector is not very profitable and very competitive sources are shipping to the nearby Asian markets and so the sector is trying to use its quality assets to increase value-added. Exporters are stepping up exports to the United States and Japan and growers are developing their easy peeler and late 'Navel' crops.

In % of 2006-08 production	Navel	Valencia Late	Easy peelers	Lemon	Gr
Queensland	4%	3%	39%	26%	
South Australia	21%	19%	8%	9%	
Victoria	25%	9%	6%	7%	
Northern Territory	22%	33%	3%	15%	
Western Australia	2%	2%	3%	2%	

Production (aver. 2008-09)	**590 000 t**
Rank in SH* production	4th
% of SH production	9%
Areas	32 000 ha
Average yield	18.4 t/ha

2 800 producers
19 packing stations (13 for export)
5 000 jobs in the sector

Citrus — Australia — Production			
tonnes	Production		Trend since 2003-04
	in 2008-09	Percentage of SH production	
Easy peelers	116 000	13%	+ 7 000
Orange	434 500	13%	+ 4 500
Lemon	30 500	2%	- 3 000
Grapefruit	9 000	2%	- 2 000

Citrus — Australia — Outlets	
Export	45%
Domestic	33%
Industry	22%

Photos © Eric Imbert et Régis Domergue

Exports	**158 500**
Rank in SH exports	3rd
% of SH exports	6%

Citrus — Australia — Exports			
tonnes	Exports		Trend since 2003-04
	in 2008-09	Percentage of SH exports	
Easy peelers	30 000	9%	+ 998
Orange	128 500	10%	- 2 345
Lemon	na	na	na
Grapefruit	na	na	na

Citrus — Australia — Major markets		
	Percentage of total citrus exports from Australia	Proportion of SH citrus supplied by Australia
United States	17%	18%
Japan	11%	17%
Asia and Middle East	72%	na

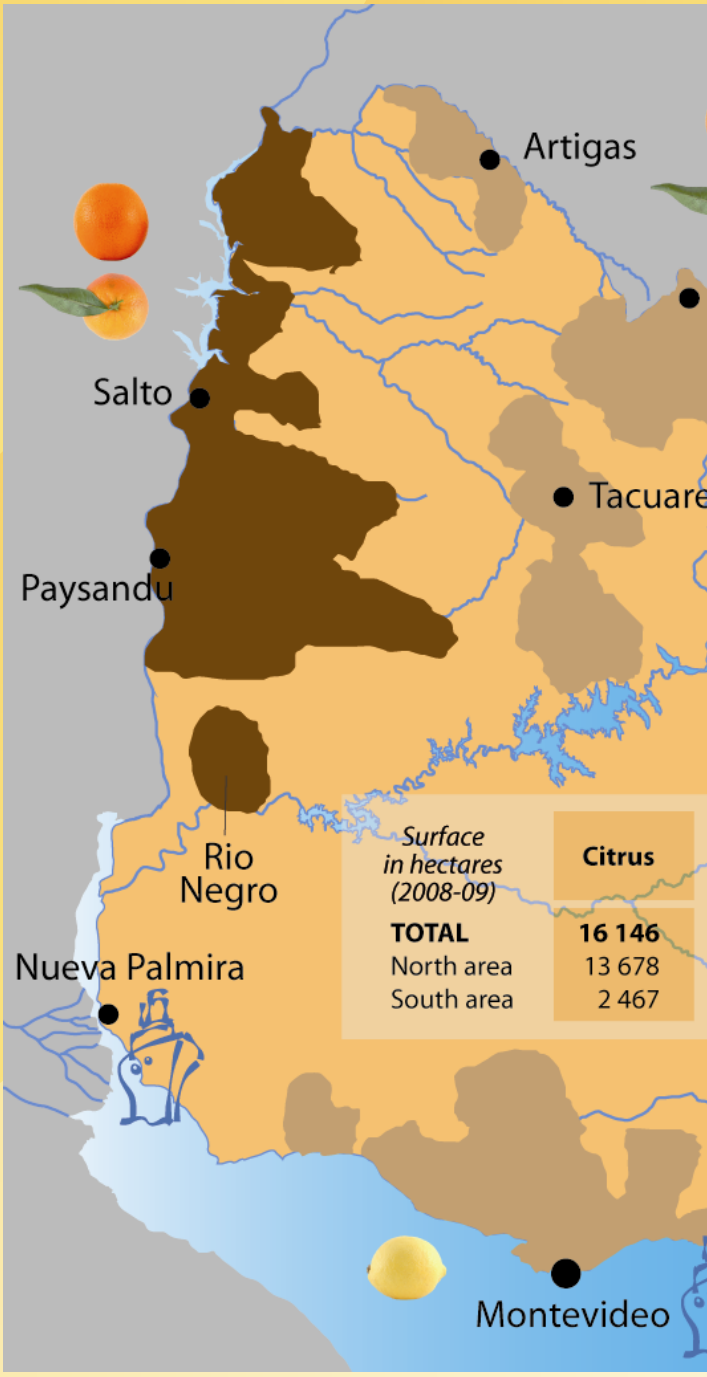
** estimate

*SH: southern hemisphere

Summer citrus producer country sheet

Uruguay

Although production is comparatively modest at about 300 000 t, Uruguay is a significant player in the summer citrus market. Nearly 85% of the fruit is harvested in the north of the country, specialised in oranges (especially 'Valencia'), easy peelers and grapefruit. The greater part of production in this zone is from three departments at the frontier with Argentina (Rio Negro, Paysandú and especially Salto). Some fruits are also grown in the Rivera department further west. The rest of the orchard area, and especially most of the lemon groves, are in Montevideo, Canelones, San José, Colonia and Maldonado departments in the south of the country. Small traditional farms coexist with a limited number of large plantations with the first ten accounting for two-thirds of production. Quarantine diseases including citrus canker and black spot are observed in the hot, humid zones in northern Uruguay (in Salto and part of Paysandú). Three businesses control more than 70% of exports, with most shipments going to the EU. Most of the rest is for the Russian and Canadian markets.

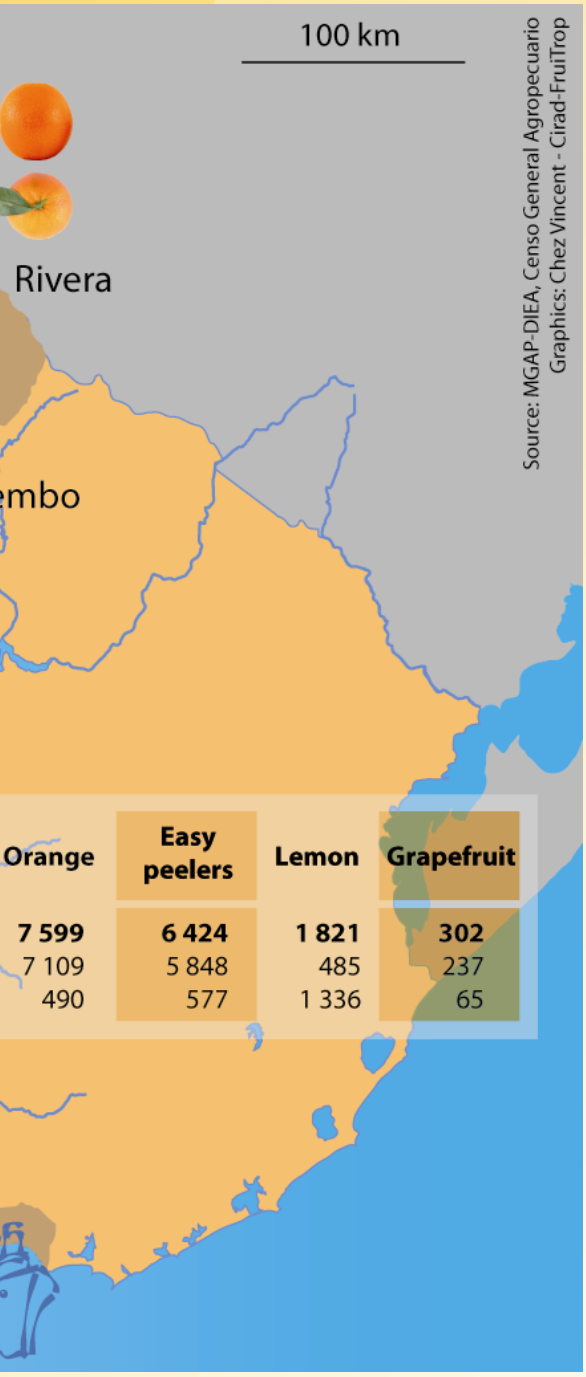


Production (aver. 2008-09)	**260 000 t**
Rank in SH* production	6th
% of SH production	4%
Areas	16 150 ha
Average yield	16.1 t/ha

Citrus — Uruguay — Production			
tonnes	Production		Trend since 2003-04
	in 2008-09	Percentage of SH production	
Easy peelers	90 575	10%	+ 14 568
Orange	129 065	4%	+ 1 231
Lemon	37 504	2%	+ 2 419
Grapefruit	3 286	1%	- 3 221

530 producers (70% of the harvest in the hands of 10 producers)
19 packing stations (13 for export)
4 juice production facilities
5 000 jobs in the sector

Citrus — Uruguay Outlets	
Export	45%
Domestic	33%
Industry	22%



Photos © Régis Domergue

Exports	**122 000 t**
Rank in SH exports	4th
% of SH exports	5%

Citrus — Uruguay — Exports			
tonnes	Exports		Trend since 2003-04
	in 2008-09	Percentage of SH exports	
Easy peelers	37 139	11%	+ 500
Orange	66 562	5%	- 6 388
Lemon	14 511	3%	+ 2 193
Grapefruit	283	0%	- 1 430

Citrus — Uruguay — Major markets		
	Percentage of total citrus exports from Uruguay	Proportion of SH citrus supplied by Uruguay
United States	PR	PR
EU-27	80%	10%
Russia	6%	3%
Japan	PR	PR
Canada	6%	-
Middle East	4%	-
Asia	1%	-

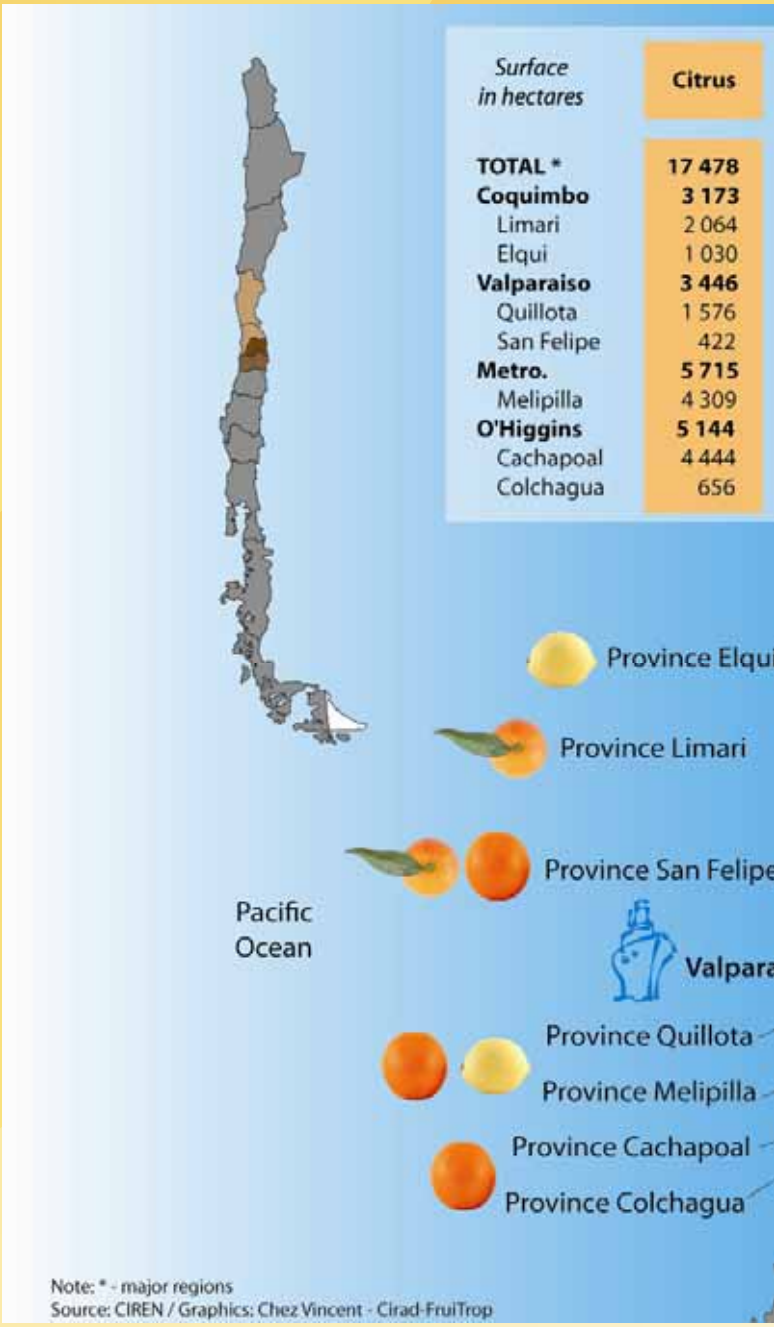
PR: phytosanitary restrictions

*SH: southern hemisphere

Summer citrus producer country sheet

Chile

Although citrus is not a major crop in this great fruit producing country, Chile has nonetheless gained increasing importance on the counter-season market in recent years thanks to the recent opening of the United States market. Orange and lemons, the two main crops, and easy peelers whose development is more recent are found in the zone with a Mediterranean climate between the south of Region IV (Coquimbo)and the centre of Region VI (O'Higgins). Nearly 80% of the 7 900 ha of orange groves are between the south of the Metropolitan region (Maipo valley around Melipilla/Maipo and Talagante) and the centre of Region VI. About 50% of the 7 000 ha of lemon is in a zone straddling Region V and the Metropolitan region around Melipilla, Petorca and Quillota. The easy peeler plantations, totalling 2 300 ha, are concentrated mainly in the southern part of Region IV (Limari Elqui), with a few other areas in the Aconcagua valley in Region V and Melipilla in the Metropolitan region. Most of the crop is sold on the domestic market. However, the removal of sanitary barriers preventing access of easy peelers and oranges to the USA, a profitable nearby market, has enabled exports to get under way. Shipments were previously moderate, consisting mainly of lemon for Japan and North America and modest volumes of oranges for Japan and the EU, but have now diversified and increased strongly, reaching 100 000 t in 2009. An increasing area is being devoted to growing late citrus (easy peelers and 'Navel' oranges).

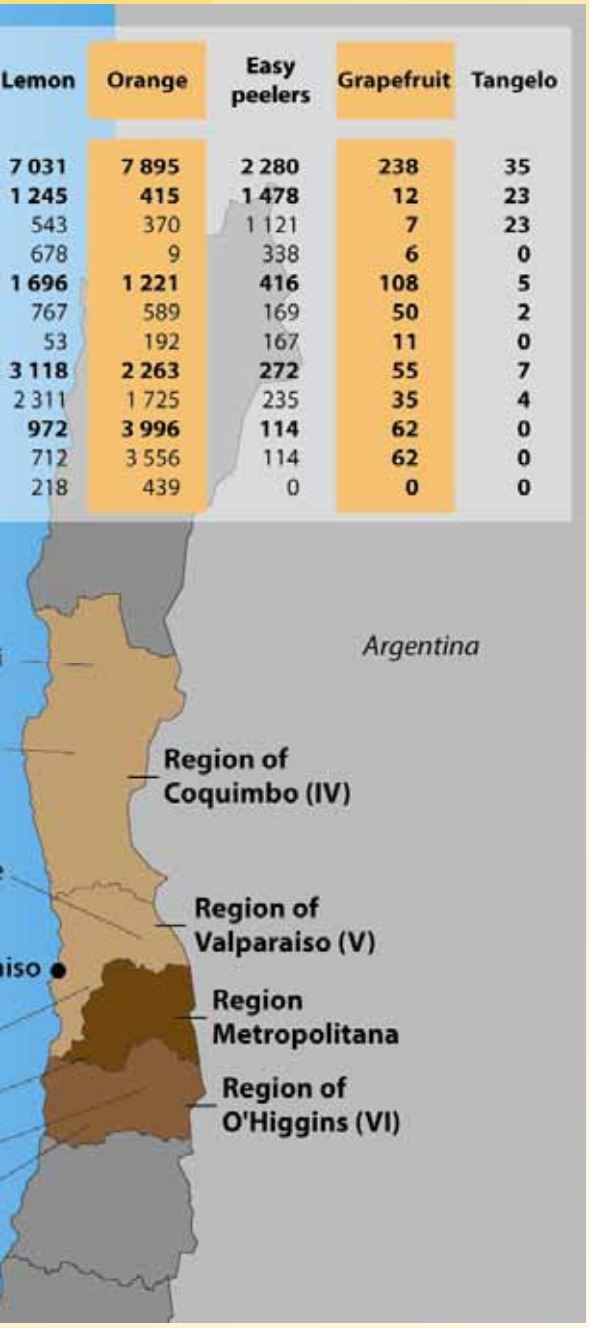


Production	**400 000 t**
Rank in SH* production	5th
Areas	21 036 ha
Average yield	15.9 t/ha

Citrus — Chile — Production			
tonnes	Production		Trend since 2003-04
	in 2008-09	Percentage of SH production	
Easy peelers	60 000	6%	nd
Orange	160 000	5%	+ 22 500
Lemon	180 000	9%	+ 17 500
Grapefruit	nd	na	nd

Citrus — Chile Outlets	
Export	26%
Domestic	73%
Industry	1%

Lemon	Orange	Easy peelers	Grapefruit	Tangelo
7 031	7 895	2 280	238	35
1 245	415	1 478	12	23
543	370	1 121	7	23
678	9	338	6	0
1 696	1 221	416	108	5
767	589	169	50	2
53	192	167	11	0
3 118	2 263	272	55	7
2 311	1 725	235	35	4
972	3 996	114	62	0
712	3 556	114	62	0
218	439	0	0	0



Exports	**106 987 t**
Rank in SH exports	5th

Citrus — Chile — Exports			
tonnes	Exports		Trend since 2003-04
	in 2008-09	Percentage of SH exports	
Easy peelers	28 269	8%	+ 8 498
Orange	37 967	3%	+ 18 466
Lemon	39 107	7%	+ 4 046
Grapefruit	1 644	1%	- 633

Citrus — Chile — Major markets		
	Percentage of total citrus exports from Chile	Proportion of SH citrus supplied by Chile
United States	56%	35%
EU-27	18%	2%
Russia	0%	0%
Japan	21%	17%
Others	5%	na

Photos © Eric Imbert, Henri Vannière et Régis Domergue

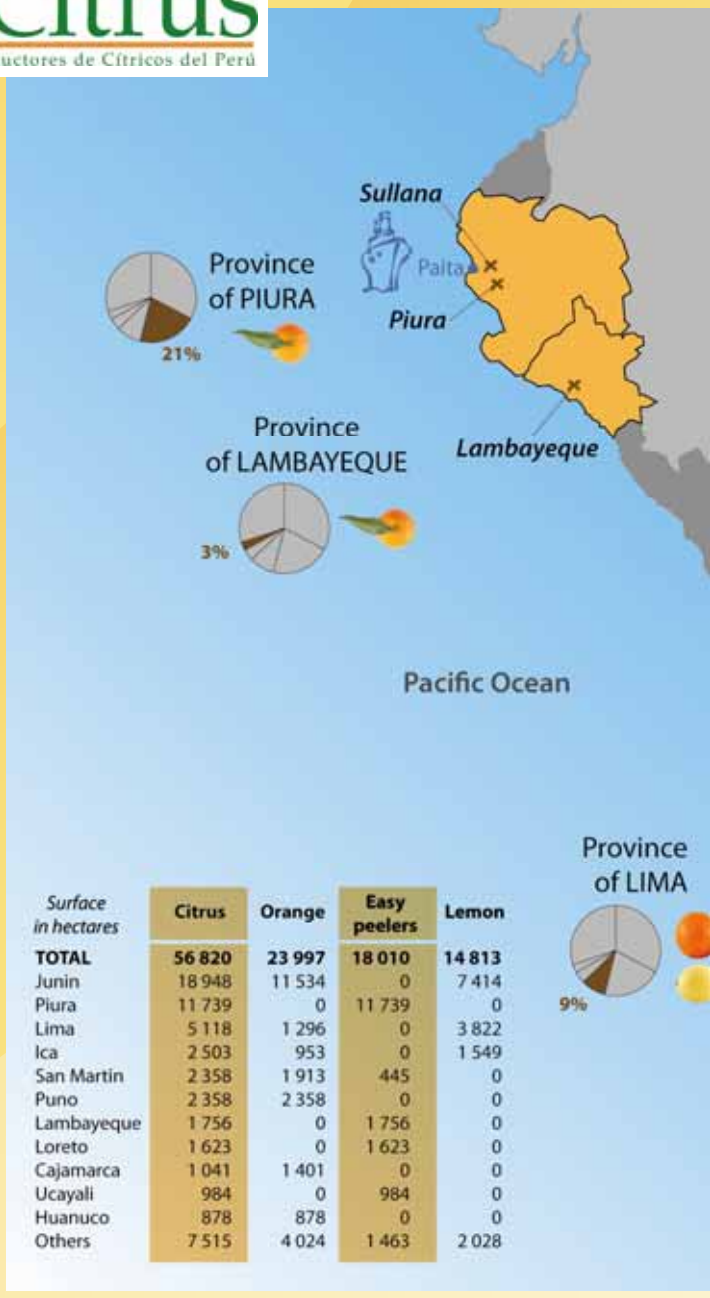
*SH: southern hemisphere

Summer citrus producer country sheet

Peru

ProCitrus
Asociación de Productores de Cítricos del Perú

With production exceeding 800 000 t, Peru is one of the leading southern hemisphere production countries. Although with a population of 24 million the domestic market is the main outlet, a few large agroindustrial groups have diversified their activities by developing exports since the beginning of the 2000s, with volumes averaging 55 000 t in 2008-09. The greater proportion of the shipments consists of easy peelers that come partly from the alluvial valleys that cross the desert-like coastal strip in the provinces of Lima departments (Canete, Huaral and Huaura departments) and Ica (Chincha, Nazca, Pisco and Ica departments). The agroclimatic conditions feature a favourable climate, surface or underground water and total control of tree nutrition. This results in excellent yields under favourable cost conditions as labour is inexpensive. The rest of the area is in the foothills of the Andes on the Amazonian side in the province of Junin (Satipo and Chanchamayo). Oranges account for most of the area and are grown in these zones. However, exports are very limited because the varieties of interest to the international market are produced in regions with difficult access. Limes are grown for the local market. In spite of restricted access to the United States because of the presence of fruit fly, this market is taking a growing share of shipments since the signing of the TLC free trade agreement in 2006, at the expense of the EU. Procitrus, the trade organisation that has supervised the sector since 2005 succeeded in gaining entry to the Chinese market in 2009. Production of easy peelers should continue to increase rapidly.



Surface in hectares	Citrus	Orange	Easy peelers	Lemon
TOTAL	**56 820**	**23 997**	**18 010**	**14 813**
Junin	18 948	11 534	0	7 414
Piura	11 739	0	11 739	0
Lima	5 118	1 296	0	3 822
Ica	2 503	953	0	1 549
San Martin	2 358	1 913	445	0
Puno	2 358	2 358	0	0
Lambayeque	1 756	0	1 756	0
Loreto	1 623	0	1 623	0
Cajamarca	1 041	1 401	0	0
Ucayali	984	0	984	0
Huanuco	878	878	0	0
Others	7 515	4 024	1 463	2 028

Production (aver. 2008-09)	**820 766 t**
Rank in SH* production	3rd
Areas	56 820 ha
Average yield	14.4 t/ha

20 000 producers (of which 100 export fruit)
8 packing stations approved for exports
15 000 jobs in the export sector

Citrus — Peru — Production			
tonnes	Production		Trend since 2003-04
	in 2008-09	Percentage of SH production	
Easy peelers	194 794	21%	+ 26 472
Orange	384 789	11%	+ 66 734
Lemon	236 945	12%	+ 14 809
Grapefruit	4 239	1%	nd

Citrus — Peru Outlets	
Export	7%
Domestic	93%
Industry	0%

Exports	**55 087 t**
Rank in SH exports	6th

Citrus — Peru — Exports			
tonnes	Exports		Trend since 2003-04
	in 2008-09	Percentage of SH exports	
Easy peelers	45 763	14%	+ 29 532
Orange	9 211	1%	+ 8 945
Grapefruit	117	0%	+ 97

Citrus — Peru — Major markets		
	Percentage of total citrus exports from Peru	Proportion of SH citrus supplied by Peru
United States	31%	10%
EU-27	63%	3%
Others	7%	-

Photos © Eric Imbert et Régis Domergue

*SH: southern hemisphere

Summer citrus product sheet

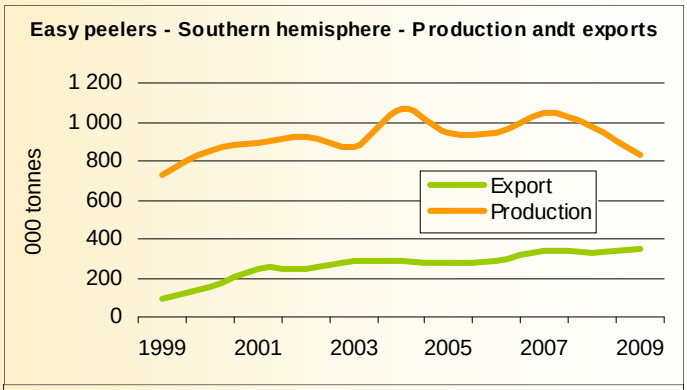
Easy peelers

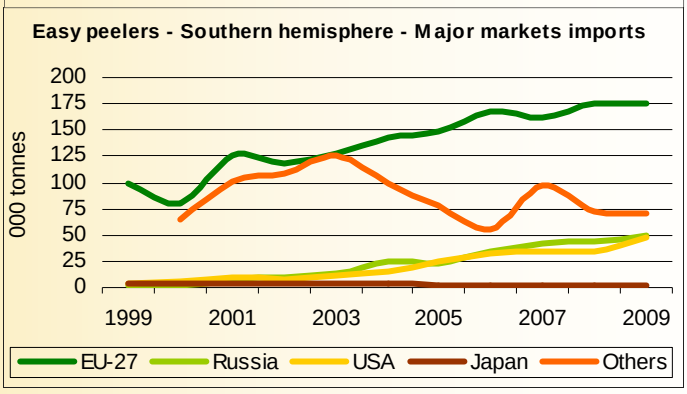
	Average for 2007-08*	Trend since 2003-04
Production	**1.1 million tonnes**	+ 50 000 tonnes
Exports	**335 000 tonnes**	+ 55 000 tonnes

* excluding 2009 season (weather problems in Argentina)

Exemplary dynamics

The entire planted area is increasing, with particular focus on hybrids. Chile and South Africa are large clementine producers and are now diversifying and developing late cultivars. The same is true of Peru, where easy peelers are a favourite of the large commercial groups seeking to diversify. 'Nadorcott' is being planted actively alongside the traditional 'Satsuma'. This activity upstream just seems to be a response to demand, which has grown so briskly that it has even exceeded supply in recent years. Demand is also practically universal. Consumption has doubled in the EU in ten years and is now approaching 200 000 t. Likewise, the Russian and American markets—non-existent in the early 2000s—each import some 50 000 t. Only Japan, the other Asian markets and the Middle East seem to be somewhat stagnant. The growth trend does not show signs of stopping. Consumption levels in the United States and Russia seem to indicate further room for development. Likewise, although some EU markets are already large consumers, such as the United Kingdom whose imports account for more than 50% of European imports, others are practically nonexistent, such as France and the southern European countries. Substantial promotion is needed to establish a position, given the firm presence of seasonal fruits. Caution is necessary at the beginning of the season, especially as regards 'Satsuma', with a view to developing a new range of high-quality varieties for the spring in the Mediterranean.





Easy peelers — Southern hemisphere
Evolution of production and areas

	Production (t)		Area (ha)	
	2008-09	Trend since 2003-04	2008	Trend since 2006
S. Africa	157 000	- 30 000	5 033	+ 349
Argentina	450 000	+ 20 000	35 793	- 18
Uruguay	90 000	+ 15 000	6 424	+ 580
Chile	*60 000	na	*3 448	na
Peru	195 000	+ 26 000	14 813	na
Australia	116 000	+ 7 000	**4 203	na

*2007 / **2003 / Sources: CGA, Federcitrus, DIEA, Citrus Australia, Procitrus, OPEDA-CIREN

Easy peelers
Summer season
Consumption
g per person

EU-15	390
EU-27	350
Russia	330
USA	*190
EU-12	90
Japan	20

* Southern hemisphere only; 205 when Florida is added (Seald Sweet estimate)

Easy peelers — Southern hemisphere — Major countries exports

tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina	31 633	23 968	36 279	41 369	38 669	65 190	72 276	84 381	99 239	96 992	114 457
South Africa	na	64 980	120 170	106 779	139 616	101 390	85 155	88 165	101 369	110 135	90 531
Chile	4 819	6 896	10 145	12 536	12 876	17 861	21 681	24 957	26 424	23 677	32 861
Uruguay	26 930	18 523	35 050	26 914	36 081	37 195	44 498	40 916	47 000	38 277	36 000
Australia	17 276	26 784	23 522	28 693	28 253	29 752	22 873	27 440	22 120	30 269	29 500
Peru	na	1 566	6 182	11 411	8 695	13 717	18 744	21 747	37 224	50 188	41 338

Professional sources

Easy peelers — Southern hemisphere — Major markets imports

tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU-27	**99 641**	**79 230**	**125 321**	**117 207**	**127 294**	**141 980**	**148 879**	**167 081**	**162 696**	**175 825**	**174 313**
South Africa	49 794	37 085	61 464	47 826	51 088	53 390	52 742	54 790	68 412	70 389	65 167
Argentina	21 777	17 159	22 519	29 389	25 119	33 287	26 750	39 271	33 022	36 243	46 315
Uruguay	21 624	15 499	27 302	20 383	29 293	23 554	33 540	36 336	34 359	31 046	33 903
Peru	381	805	4 792	8 763	9 347	16 611	24 926	25 728	18 469	30 981	23 413
Russia	**2 478**	**1 732**	**8 293**	**9 664**	**13 699**	**24 126**	**23 154**	**33 830**	**41 821**	**42 877**	**50 056**
Argentina	1 784	1 213	4 174	5 998	6 735	13 287	18 572	26 295	32 888	29 228	38 912
South Africa	616	226	1 428	2 391	4 276	8 671	718	4 654	5 715	10 549	9 331
USA	**4 081**	**5 728**	**8 722**	**7 425**	**11 932**	**14 997**	**24 003**	**31 981**	**33 402**	**33 559**	**48 263**
Chile	68	0	0	0	0	2	8 009	11 846	11 990	16 291	27 335
Peru	0	0	0	0	0	0	0	1 891	11 054	8 753	10 634
Japan	**4 497**	**3 416**	**4 550**	**4 227**	**2 991**	**2 920**	**2 634**	**1 831**	**2 466**	**2 330**	**1 824**
Australia	1 688	1 510	1 758	935	1 010	1 119	612	1 028	1 075	1 508	1 173
Others		**65 644**	**101 720**	**108 753**	**126 586**	**99 096**	**79 032**	**54 391**	**96 483**	**71 439**	**70 732**

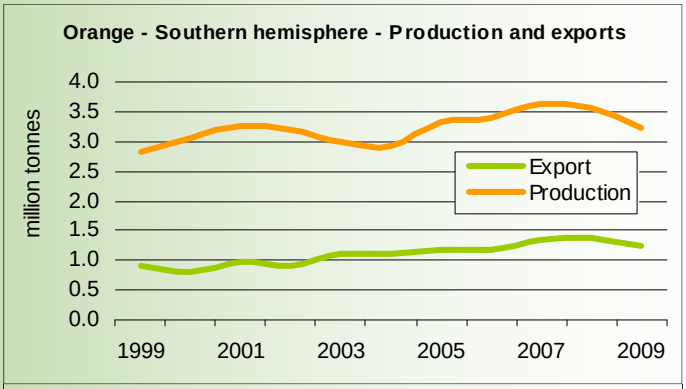
Sources: national customs authorities, producers' associations, plant sanitary control services

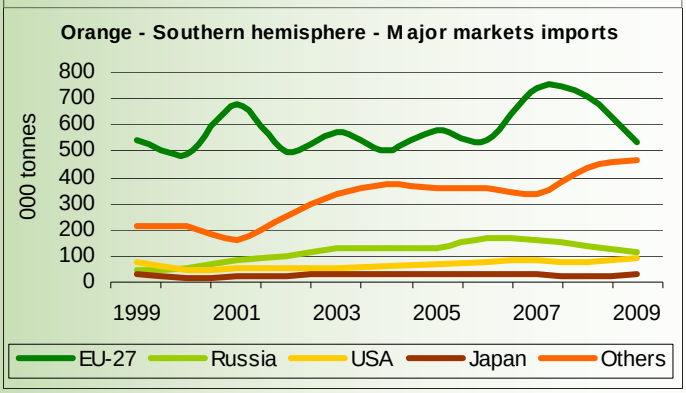
Orange

	Average 2008-09	Trend since 2003-04
Production	**3.4 million tonnes**	+ 440 000 tonnes
Exports	**1.3 million tonnes**	+ 142 000 tonnes

World market growth should not be overestimated

Southern hemisphere production has increased strongly in recent years, mainly as a result of the development of orchards in South Africa and Argentina. The normal world harvest volume would be closer to 3.6 million tonnes than the 3.2 million tonnes recorded in 2009—a reflection of the meteorological problems in Argentina and Australia in recent years. Production will continue to grow in the coming years but at a slower rate. The planted area is still increasing in modest exporting countries such as Peru, Chile and Uruguay. However, the area in Argentina decreased slightly from 2006 to 2008. Growth of South African production should slow as although 'Valencia' was planted heavily until 2007, the boom for planting 'Navel' seems to be over since 2006. Where will this additional production go? Russia has considerable potential, given its dynamics before the economic downturn and consumption levels. In contrast, the Middle Eastern markets have formed one of the driving forces in recent years but would seem close to maturity, given the population (40 million, excepting the very closed Yemen) and its imports. The Chinese market still has strong potential, especially as the sanitary protocols are now less strict for certain sources. However, imports are still very limited for the moment. It might well be the moment to concentrate again on the development of the US market, where consumption is small, and of the EU market where pressure from Mediterranean production is increasing.





Orange — Southern hemisphere
Evolution of production and areas

	Production (t)		Area (ha)	
	2008-09	Trend since 2003-04	2008	Trend since 2006
S. Africa	1 500 000	+ 260 000	38 683	+ 1 051
Argentina	800 000	+ 85 000	49 391	- 1 497
Uruguay	130 000	+ 1 000	7 599	+ 1 147
Chile	155 000	+ 22 000	9 231	na
Peru	385 000	+ 67 000	23 997	na
Australia	434 000	+ 4 500	*20 359	na

*2003 / Sources: CGA, Federcitrus, DIEA, Citrus Australia, Procitrus, OPEDA-CIREN

Orange
Summer season Consumption
kg per person

EU-15	1.62
EU-27	1.24
Russia	0.89
EU-12	0.32
Japan	0.21
USA	*0.09

* southern hemisphere only; 1.1 when California and Florida are added (Seald Sweet estimate)

Orange — Southern hemisphere — Major countries exports

tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
South Africa	615 661	579 639	682 900	690 852	854 544	737 146	746 963	765 245	933 913	971 483	857 917
Argentina	72 727	39 218	100 463	82 048	78 721	129 897	172 485	177 877	198 351	155 677	142 016
Australia	143 000	146 000	136 000	94 000	106 000	131 000	128 000	125 000	108 000	130 000	127 000
Uruguay	74 446	42 852	65 036	49 175	68 960	76 939	96 411	78 863	85 800	69 124	64 000
Chile	1 217	3 377	5 192	6 121	9 420	18 202	20 802	25 721	19 885	37 833	38 102
Peru	-	145	278	272	91	232	300	882	7 851	14 571	3 851

Professional sources

Orange — Southern hemisphere — Major markets imports

tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU-27	**544 163**	**486 802**	**675 886**	**496 189**	**570 874**	**501 219**	**578 676**	**542 880**	**741 958**	**704 977**	**536 976**
South Africa	278 898	291 486	328 937	297 435	312 807	260 034	341 031	296 973	448 674	453 956	333 211
Argentina	54 822	31 902	85 666	61 566	68 283	79 584	75 607	81 906	114 628	96 350	81 413
Uruguay	55 577	26 936	51 466	39 930	56 289	51 825	75 145	64 930	72 261	57 700	59 293
Russia	**46 492**	**52 998**	**84 978**	**98 940**	**128 236**	**130 818**	**126 565**	**167 417**	**163 367**	**135 145**	**116 969**
South Africa	24 452	26 236	62 650	85 098	103 572	75 895	56 096	88 801	101 044	95 372	89 574
Argentina	17 648	8 525	12 739	4 100	6 938	38 461	51 737	67 438	60 253	34 398	21 840
Uruguay	-	13 598	6 672	4 623	9 653	8 630	16 383	11 178	2 070	5 375	5 555
USA	**76 223**	**42 726**	**49 955**	**54 977**	**50 980**	**61 929**	**67 496**	**72 481**	**81 902**	**75 286**	**92 759**
South Africa	750	9 414	17 419	16 219	23 126	26 766	28 193	35 383	28 658	33 636	27 246
Australia	22 138	24 081	16 133	20 813	19 737	22 685	27 446	22 318	28 969	21 505	23 486
Chile	0	0	0	0	0	0	0	20	2 445	0	20 312
Japan	**27 074**	**16 111**	**20 418**	**22 220**	**28 847**	**27 137**	**30 785**	**32 677**	**29 549**	**26 224**	**27 583**
South Africa	13 846	8 547	9 337	8 028	13 276	10 216	10 960	7 714	10 298	8 433	7 370
Australia	12 460	6 245	7 238	8 765	9 238	6 493	8 443	15 522	15 520	13 093	18 324
Others	**213 099**	**212 595**	**158 633**	**250 141**	**338 800**	**372 313**	**361 438**	**358 133**	**337 025**	**436 931**	**463 598**

Sources: national customs authorities, producers' associations, plant sanitary control services

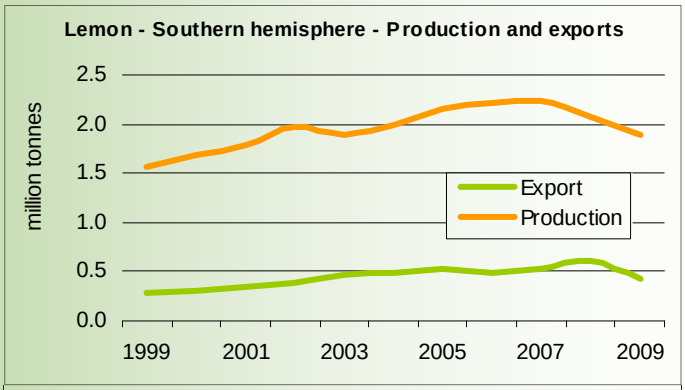
Lemon

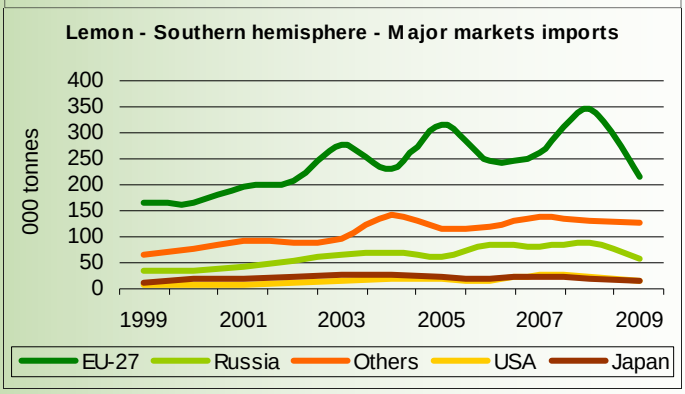
	Average for 2006-07*	Trend since 2003-04
Production	**2.2 million tonnes**	+ 440 000 tonnes
Exports	**510 000 tonnes**	+ 142 000 tonnes

*excluding 2008-2009 seasons (weather problems in Argentina)

The future is in the East... unless progress is made in the United States

Like oranges, the volumes harvested in the last two years do not reflect the size of the planted area, as Argentina has had meteorological problems. Production is more of the order of 2.2 million tonnes and should continue to increase in the coming seasons. Although the area under lemon seems to have stabilised in South Africa, it is still increasing markedly in Argentina, but there is no recent cadastral information is available for the Valparaiso region, the main production area in Chile. The new EU member states and, more still, Russia, are probably the open markets with the greatest potential for development: each lacks some 60 000 to 70 000 t to match the EU-15 consumption level. However, their growth potential should not be over-estimated as lemon consumption is not elastic. Beyond this, scope for development seems limited. Will the southern hemisphere be able to continue to glean a little market share in EU-15 from Spain, where 'Verna' seems to be interesting certain producers again? As for oranges, the markets in the Arabian peninsula seem fairly close to saturation. The size of the markets in Asia, where acid fruits are little sought-after, will remain limited. There remains the currently profitable processing industry and the United States market, that is regularly about to open up.





Lemon — Southern hemisphere
Evolution of production and areas

	Production (t)		Area (ha)	
	2008-09	Trend since 2003-04	2008	Trend since 2006
S. Africa	220 000	+ 20 000	4 426	+ 18
Argentina	*1 500 000	+ 220 000	43 844	+ 1 647
Uruguay	37 000	+ 2 500	1 821	+ 64
Chile	180 000	+ 17 500	**7 856	na
Australia	29 000	- 5 000	***1 212	na

*excluding 2008-09 seasons (climatic problems) / **2007 / ***2003 / Sources: CGA, Federcitrus, DIEA, Citrus Australia, Procitrus, OPEDA-CIREN

Lemon
Summer season
Consumption
g per person

EU-15	700
EU-27	560
Russia	500
EU-12	590
Japan	140
USA*	60

* S. hemisphere only

Lemon — Southern hemisphere — Major countries exports

tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Argentina	197 608	205 523	237 792	268 052	335 925	319 199	379 463	325 653	358 524	406 301	253 977
South Africa	50 466	61 675	74 320	79 034	97 963	115 859	106 635	112 329	110 308	143 703	125 740
Chile	13 923	18 047	20 968	25 932	28 679	35 096	35 025	33 180	46 904	41 251	36 962
Uruguay	15 965	10 999	17 396	9 320	11 317	13 319	16 170	14 975	13 800	14 511	14 511
Australia	5 021	3 340	3 603	3 945	2 626	1 099	740	151	722	917	1 017

Professional sources

Lemon — Southern hemisphere — Major markets imports

tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU-27	**166 593**	**163 937**	**194 766**	**207 765**	**275 142**	**230 114**	**316 025**	**247 195**	**260 451**	**344 251**	**215 279**
Argentina	142 325	135 116	153 593	174 021	238 201	182 963	254 837	192 185	219 916	267 893	163 902
South Africa	12 090	19 956	27 089	25 894	26 727	37 096	46 985	42 844	30 722	64 830	38 937
Uruguay	10 883	7 814	13 180	7 040	8 962	9 510	13 558	11 985	9 342	10 002	10 167
Russia	**33 287**	**34 224**	**41 279**	**55 636**	**63 761**	**67 763**	**62 793**	**83 988**	**79 561**	**86 950**	**55 910**
Argentina	33 072	32 104	39 354	53 230	60 330	64 529	59 720	78 656	75 945	80 070	44 461
South Africa	212	185	858	1 605	2 244	2 808	2 286	4 828	3 490	6 390	11 352
USA	**7 899**	**6 939**	**6 796**	**11 104**	**15 765**	**19 867**	**20 665**	**15 730**	**28 009**	**22 072**	**16 921**
Chile	7 896	6 892	6 796	10 719	14 210	19 397	20 295	15 709	27 591	21 598	16 822
Japan	**11 716**	**17 553**	**18 978**	**22 968**	**25 275**	**25 447**	**22 240**	**21 120**	**23 215**	**20 631**	**14 880**
Others	**63 488**	**76 930**	**92 260**	**88 810**	**96 567**	**141 382**	**116 311**	**118 255**	**139 021**	**131 862**	**128 200**

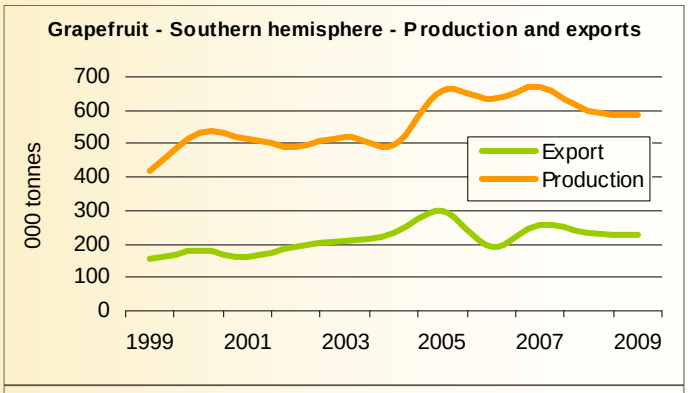
Sources: national customs authorities, producers' associations, plant sanitary control services

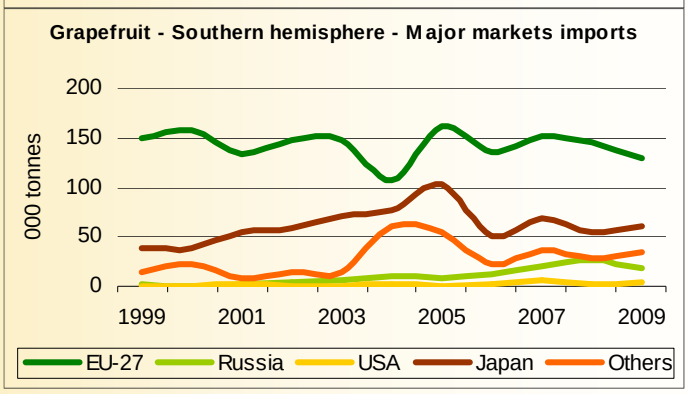
Grapefruit

	Average for 2008-09	Trend since 2003-04
Production	**955 000 tonnes**	+ 85 000 tonnes
Exports	**230 000 tonnes**	+ 10 000 tonnes

Caution after the blow

After hopes were raised by the decline of Florida produce on the international market, southern hemisphere producers have received something of a blow. Their sales have tended to decrease in recent years rather than increase. Little retail shelf-space seems to be devoted to grapefruit in the winter, for lack of the substantial driving effect of high-quality Florida fruits on consumption. They no longer achieve their former sales in the summer. The Japanese market has shrunk by about 25 to 30%. Consumption has held up better in the EU, the world's leading importer, but is nonetheless tending to lose a little ground. The promotion campaign launched by the Citrus Growers Association (CGA) of South Africa in the United Kingdom seems more than welcome. There are not many alternatives to these two heavyweight markets. There is still Russia, where the market is growing but consumption is still small. Southern hemisphere producers seem to have measured the limited prospects for the development of the grapefruit market. The planted area is tending to decrease in Argentina and planting is less intense in South Africa, where production seems to be stabilising.





Grapefruit — Southern hemisphere Evolution of production and areas	Production (t)		Area (ha)	
	2008-09	Trend since 2003-04	2008	Trend since 2006
S. Africa	355 000	+ 44 000	9 166	+ 715
Argentina	220 000	+ 40 000	10 427	- 703
Uruguay	3 300	- 3 300	302	+ 32
Mexico	90 000	+ 10 000	7 960	+ 104
Australia	9 000	- 2 000	*566	na
Chile	na	na	355	na

*2003 / Sources: CGA, Federcitrus, DIEA, Citrus Australia, Procitrus, OPEDA-CIREN, SIAP

Grapefruit Summer season Consumption g per person	
EU-15	340
EU-27	270
Russia	160
EU-12	190
Japan	450
USA*	10

* S. hemisphere only

Grapefruit — Southern hemisphere — Major countries exports											
tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
South Africa	132 196	158 297	138 356	166 404	169 035	184 451	251 345	157 792	214 620	186 400	199 504
Argentina	21 412	17 360	23 655	22 699	28 995	31 358	35 813	19 987	29 276	33 306	17 892
Uruguay	2 553	995	1 896	1 403	1 557	1 867	1 385	2 335	1 200	265	300
Chile	32	655	538	324	933	3 255	1 358	3 946	1 540	1 813	1 474
Peru	-	-	-	-	1	20	20	23	131	28	206
Mexico	3 149	2 243	7 808	3 169	6 569	10 674	8 167	*10 000*	9 950	14 338	10 656

Professional sources

Grapefruit — Southern hemisphere — Major markets imports											
tonnes	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU-27	**148 562**	**157 761**	**132 959**	**146 639**	**146 825**	**106 990**	**160 991**	**136 086**	**152 104**	**145 838**	**128 662**
South Africa	79 072	100 883	69 123	92 386	82 420	56 511	98 337	73 615	91 536	86 851	88 526
Argentina	20 606	14 733	20 309	20 728	27 668	20 034	28 242	17 870	23 513	24 171	14 893
Mexico	2 794	1 657	6 024	3 990	6 121	6 874	5 362	9 684	9 063	12 351	9 127
Russia	**1 072**	**722**	**2 929**	**4 516**	**5 948**	**10 289**	**7 861**	**11 323**	**20 386**	**26 759**	**18 338**
South Africa	715	479	1 859	2 319	3 962	6 691	4 170	8 231	15 694	16 805	17 857
Argentina	340	168	900	1 899	1 618	3 386	3 228	3 092	4 692	9 954	481
USA	**4**	**60**	**1 259**	**33**	**115**	**1 567**	**506**	**2 692**	**5 157**	**2 741**	**3 487**
Japan	**37 496**	**37 906**	**54 616**	**57 707**	**70 867**	**76 024**	**102 036**	**51 478**	**68 618**	**54 109**	**61 061**
South Africa	30 147	32 193	48 431	52 564	65 775	69 408	96 707	48 562	64 335	49 611	57 818
Others	**14 457**	**21 250**	**8 353**	**13 839**	**13 148**	**59 707**	**54 635**	**22 788**	**36 649**	**28 099**	**34 248**

Sources: national customs authorities, producers' associations, plant sanitary control services

Citrus pests and diseases

Citrus diseases	Black spot **Fungus: *Guignardia citricarpa* (asexual form *Phyllosticta citricarpa*)**	Huanglongbing (greening) **Phloem bacteria: *Liberibacter africanum, L. asiaticum***	Citrus canker **Bacterium: *Xanthomonas axonopodis* pv. *citri***
Distribution	Asia, East Africa, Southern Africa, South America.	Asia, subtropical and tropical Africa, Middle East.	Asia, South America, Florida, certain regions of Africa.
Symptoms	Small spots on leaves and above all on fruits. Necrotic spots surrounded by a brownish black ring and a yellow halo — variable on fruits.	Shoot yellowing, leaf mottling, small poorly coloured fruits.	Corky pustules on leaves and fruits.
Susceptible species	Broad host spectrum. Affects lemon, grapefruit, lime, mandarin and late orange above all	Broad host spectrum. Affects orange and mandarin above all.	Broad host spectrum. Above all grapefruit, orange, lime and some mandarins.
Transmission	By air and water.	Psyllas (*Diaphorina citri, Tryoza erytreae*).	By air and water.
Economic impact	Early fruit fall in case of serious attack.	Tree dieback, shorter orchard life.	Harvest loss.

Citrus pests	Fruitfly **Diptera Tephritidae: various species of the genera *Ceratitis*, *Anastrepha*, *Dacus*, *Bactrocera*, etc.**	Thrips **Thysanoptera: thripidae. *Scirtothrips* spp. (*S. aurantii*, *S. citri*, *S. dorsalis*)**	Diaspine **Hemiptera: Diaspididae. Genera *Aonidiella*, *Unaspis*, *Chrysomphalus*, *Cornuaspis*, etc.**
Distribution	American continent: *Anastrepha*. Africa: *Ceratitis*, *Dacus*. Asia-Pacific: *Bactrocera*.	Variable according to the species. Present in the Mediterranean area: *Tetranychus urticae*, *Panonychus citri*.	Variable according to the species. Present in the Mediterranean area: *Aonidiella aurantii*, *Cornuaspis beckii*, etc.
Symptoms	Pricking caused by females laying eggs in the fruits.	Greyish patches in a ring around the fruit stalk (thrips feeding on young fruits).	Scale on leaves, shoots and/or fruits, trees weakened in case of large populations.
Susceptible species	Mandarin, orange, grapefruit. Mandarins and thin-skinned oranges susceptible.	Orange, mandarin, tangor, tangelo, lemon, etc.	Broad host spectrum.
Economic impact	Harvest loss.	Deterioration of the outside appearance of fruits.	Deterioration of the outside appearance of fruits.