CLOSE-UP: CITRUS

Prices of fruit juices and pulps in Europe

Litchi from Madagascar
A very early season
Les litchis de Madagascar
Vous allez adorer!

- 4000 tonnes d'importation chaque année,
- Leader sur le marché du litchi depuis près de 15 ans,
- Sélection des meilleurs fournisseurs à Madagascar et en Afrique du Sud,
- Plus de la moitié de nos fournisseurs sont certifiés EurepGAP.

A l'affiche en magasin dès le 8 décembre!
‘Fighting fire with fire’

The G20 summit has just confirmed in the eyes of the world that it intended to continue to globalise the economy. At the bedside of the sick economy, Doctor G20 has therefore decided to continue to give the patient the strong stuff that had made him ill. Indeed, the apothecary has affirmed that the problem was not the medicine but that the dose was too small. The main active ingredient—free trade—is certainly the right one, even when the patient is in emergency care. The dose will be increased and administered more frequently and any use of homeopathy will be definitively abandoned.

However, many people had believed that the problem was the medicine and that a change in treatment—or at least a pause—was going to be announced. Had not the abandoning of therapy been decided urbi et orbi by the chief doctors at the WTO ministerial conference in July? It seems that the diagnosis leaves no doubt as to the sometimes upsetting and harmful role of the globalisation of trade, if only as regards food security.

Let’s hope that the dose decided in Washington is not lethal for a number of economies, unless, without stating it openly, the precept that the economy must be globalised is a new version of the theory of natural selection.

Denis Loeillet

Contents

International Press Review
p. 2
• World: The prices of fruit juices and pulps in Europe
• France: Extensive manoeuvres on the French banana market
• Indian Ocean: Litchi from Madagascar: a very early season

Catherine Sanchez

Close-up by Eric Imbert
p. 5
CITRUS
• Spanish citrus - Report on the 2007-08 season: a mixture of satisfaction and concern among producers
• Winter citrus - 2007-08 season report: detail by type of fruit
• Mediterranean citrus - Forecasts for the 2008-09 season: strong export potential returns
• The international orange juice market: a conjunctural decrease?
• Citrus cultivation
• Citrus pests and diseases
• Citrus varieties
• Citrus harvesting and storage
• Citrus post-harvest diseases

European Market - September 2008
p. 37
• Indicators
• Grapefruit
• Avocado
• Mango
• Banana
• Pineapple
• Orange
• Sea freight

Eric Imbert, Pierre Gerbaud, Thierry Paqui, Richard Bright

Wholesale Market Prices in Europe
p. 47

September 2008

Cover photo: Régis Domergue
WORLD

The prices of fruit juices and pulps in Europe. A selection of prices published at regular intervals by the Market News Service of the United Nations International Trade Centre in Geneva (mns@intracen.org).

<table>
<thead>
<tr>
<th>EU — Juice and pulp prices for certain origins — September 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of juice</strong></td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Orange</td>
</tr>
<tr>
<td>Single juice (NFC)</td>
</tr>
<tr>
<td>Grapefruit</td>
</tr>
<tr>
<td>Frozen concentrate, 68° Brix, white</td>
</tr>
<tr>
<td>Frozen concentrate, 58° Brix, pink</td>
</tr>
<tr>
<td>Lemon</td>
</tr>
<tr>
<td>Frozen concentrate, 500 gpl, pulp 6% max.</td>
</tr>
<tr>
<td>Lime</td>
</tr>
<tr>
<td>Guava</td>
</tr>
<tr>
<td>Aspetic pulp, 8-10° Brix, pink</td>
</tr>
<tr>
<td>Banana</td>
</tr>
<tr>
<td>Frozen concentrate, 60° Brix, 'Smooth Cayenne'</td>
</tr>
<tr>
<td>Pineapple</td>
</tr>
<tr>
<td>Aspetic single juice, MD2</td>
</tr>
<tr>
<td>Frozen single juice, MD2</td>
</tr>
<tr>
<td>Passion fruit</td>
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<td>Frozen concentrate, 50° Brix</td>
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<td>Single juice, 14° Brix</td>
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<td>Acerola</td>
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<td>Frozen single juice, 6-8° Brix</td>
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<td>Mango</td>
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<td>Aspetic concentrate, 28° Brix, 'Tommy Atkins'</td>
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<td>Aspetic purée, 16° Brix, 'Alfonso'</td>
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<td>Aspetic concentrate, 28-30° Brix, 'Tommy Atkins'</td>
</tr>
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<td>Aspetic concentrate, 28-30° Brix, 'Tommy Atkins'</td>
</tr>
</tbody>
</table>

Source: Market News Service for bulk-packed fruit juices - Europe

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FRUIDOR OUTRE-MER changes its name to TERRAGAÏA

Following the sale by Pomona of its ripening activities to UGPBAN, the group’s fruits and vegetable import activity has changed its name to TERRAGAÏA.

La Compagnie Fruitière announces the completion of its purchase of Dole France and JP Fresh (United Kingdom) from Dole Inc.

The fruit group in Marseilles has added to its some 450 000 tonnes of fruits grown in West Africa ripening and import capacity for nearly 230 000 tonnes in France and the United Kingdom. Dole Inc. is keeping its 40% share in La Compagnie Fruitière alongside the holding belonging to the Fabre family (60%).

La Compagnie Fruitière partnership with Unicef

La Compagnie Fruitière and Unicef France have signed a partnership contract to fund a schooling programme for young girls in Senegal. A world first in the banana sector, this programme is to be ‘1 kilo de fruit acheté = un enfant retrouvé pour un enfant en Afrique’ (‘Buy a kilo of fruit and an African child will smile again’).

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INTERNATIONAL PRESS REVIEW

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November 2008 No 161
FRANCE

Extensive manoeuvres on the French banana market

There has been an avalanche of news on the French banana market. Growers in Guadeloupe and Martinique have acquired the control of Fruidor, the Pomona group's ripening department. La Compagnie Fruitière has received the permission of the authorities in charge of competition to finalise the purchase of Dole group's ripening networks in France and the UK.

This is a major event for the French market. France was seen as being one of the very last European markets to remain unaffected by the large-scale restructuring in the banana sector. The setting up of the common market organisation (CMO) of bananas in 1993 had resulted in the maintaining of a certain status quo, consolidating the positions of each of the large groups to a certain degree. In contrast with the other markets, the economic fabric of banana had changed without a revolution. Ripening was more linked to the downstream end of the chain, even if there were special relations between certain large networks such as that between Fruidor and French West Indian production and Dole and African production by La Compagnie Fruitière. In addition to a few national groups (Fruidor, Dole, Del Monte, Scrafruits) or regional operations (Canavèze and Frubana), a host of independent regional ripeners—doubtless about thirty today—complete ripening facilities in France.

The movement of integration of downstream operations (ripening and importing) by the upstream end of the chain (FWI and African production) is the direct or indirect consequence of a deep-seated change in the French, European and world markets. We know how difficult the French market is. Value-added is decreasing, with the trend accentuated by the deregulation of imports. The upstream end of the chain had to be able to evaluate and take in hand its trade destiny in the face of retail groups that have made bananas the cheapest article in fruit and vegetable departments. Defence of value-added and market shares by source are central to these industrial movements. In the case of production in the FWI, it is also the logical follow-on to the programme of restructuring of the production and trade sector that has been in progress for several years, with the setting up of UGPBAN. It is also a way of lessening the strong disturbances to trade caused by non-traditional operators who launch one-day operations. These cause much disturbance and will certainly increase in number and intensity with the definitive opening up of the European market. Finally, many operators had their eyes on this French market that was still up for grabs. It was therefore better to control than endure. These concentration processes are therefore offensive as much as defensive. One is tempted to see a Spanish style of scenario in this upstream-downstream integration. We hope that the French market will have the same return on its investment.

Source: Cirad

INDIAN OCEAN

Litchi from Madagascar: a very early season

Rainfall and heat during the vegetative period in the Indian Ocean litchi orchards (South Africa, Réunion, Madagascar and Mauritius) have resulted in large quantities and unusual earliness this year. The season has not started as early since 2004-05, especially in Madagascar. The last hurricane does not seem to have fundamentally harmed production capacity there even if numerous plantations were affected. As usual, Mauritius was the first to start the season with the first batches shipped by air in Week 44, followed immediately by Madagascar, where volumes soon started to be large. It was the turn of South Africa and Réunion in Week 46. The very rapid increase in quantities ran up against lack of demand on the various European markets. When the volumes were moderate, they could be sold without difficulty via traditional channels. However, the sudden and substantial increase in exports from the various Indian Ocean sources soon clogged up a market that lacked enthusiasm for fruits that were certainly of satisfactory quality but were still expensive at the retail stage. The season started against the background of the international economic crisis and this encouraged consumers to focus their food purchases more on staples. The cumulated arrivals soon resulted in the forming of stocks and this was not good for fruit quality. Given this situation, many European importers slowed or provisionally halted their supplies and tried to clear the fruits that they had already received.

The trade situation is thus complex at the start of the season, with sales at low prices. Poor sales are bad for sulphur-treated fruits and even more so for fruits on the branch or loose from Réunion and Mauritius. Indeed, litchis on the branch from Réunion were available at about EUR 6.00 per kg on some street markets in Paris last weekend. They were slightly spotted and displayed fairly marked shell oxidation—a clear illustration of the poor trading situation today.

The profile of the season should change in the coming weeks. First, decrease in shipments in recent weeks should result in more stable prices or even an increase for the end of the air freight season. The first ship from Madagascar is expected to dock in Europe at the beginning of December. The increase in volumes and the decrease in price inherent in fruits imported by sea may perhaps stimulate demand that has been very sluggish so far. Supermarket chains are still hesitant in the light of the high prices asked but should soon focus on litchis arriving by sea. It is to be hoped that in spite of the downward trend caused by current economic difficulties, consumers will not forget the pleasure of this original, flavoured fruit this year.

The volumes scheduled to arrive by sea are down on those of last year, with 11 000 t planned before Christmas in comparison with 17 000 t in 2007. This is likely to make it easier to sell the quantities arriving under satisfactory conditions. In contrast, a large programme of container arrivals has been announced for after the New Year. If this is confirmed, the European market will be saturated once again in January, a traditionally more difficult period for litchi sales. The story is not finished yet.

Source: Pierre Gerbaud

For more information see la lettre du litchi on www.ctht.org
Nous réunissons le meilleur du
We are gathering the best of

www.marocfruitboard.com
The moderate Mediterranean citrus harvest in 2007-08 resulted in a return to better economic results for orange, easy peeler and lemon producers after a very difficult 2006-07 season. But the lemon sector is still very fragile in certain countries—including Spain—that play an important role in world trade. FruitTrop reviews the situation on the international market for both fresh fruits and juices at a moment when the 2008-09 season is starting and promises to be more generous than the last one in most of the major exporting countries.

A report by Eric Imbert
BEST LEMONS COME FROM SPAIN
Spanish citrus
Report on the 2007-08 season
A mixture of satisfaction and concern among producers

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pain has a special position in the international citrus market as it controls nearly a third of the volumes traded in the world. In addition to its title of leading world exporter, attention should be paid above all to measuring the structuring role that it plays on the major world markets during the winter citrus season, starting with Europe. The prices of the easy peelers, oranges or lemons sold in France, in the Czech Republic or in Norway depend to a considerable degree on the size of the Spanish harvest. It is therefore easy to understand the interest of closely monitoring evolutions in the sector. Is the return to profitability in 2007-08 after a series of disastrous seasons the sign of lasting better health of the citrus growing sector? We review the situation here after a succinct reminder of the size and main features of the sector.

Varietal innovation and internationalisation are the keys to success

The spectacular growth of the Spanish citrus sector is based above all on the produce itself. Firstly, the special climate in the western Mediterranean, with cool winters, makes it possible to grow oranges and easy peelers with characteristic colour and taste appreciated for the good sugar:acid balance. Furthermore, Spanish professionals succeeded in developing a first-rate range of oranges and, even more so, easy peelers. Breeders have sought varieties that extend the season and improve organoleptic qualities (colour at the beginning of the season, seedless, size, etc.). For this, the sector built up facilities for the breeding, evaluation and rapid distribution to citrus growers of high-quality plant material that comes into production rapidly thanks to top-grafting techniques. Finally, Spanish exporters have been pioneers in the opening of many new markets. With a natural trading area consisting of the countries in the western EU, they have gradually enlarged their customer portfolio to include the countries in Eastern Europe, then the United States and, more recently, Asia. Today, the Spanish sector has no fewer than 90 customer countries with EU-15 forming about 80% of its market.

A long period of plenty followed recently by a serious growth problem

Spanish production increased tremendously to cover this market growth, moving from less than 3 million tonnes at the end of the 1970s to more than 7 million tonnes in the record 2006-07 season. However, the development model that conferred its success seems to have got somewhat out of control. First, competition from other production sources grew sharper, especially for oranges and above all lemons on the Eastern European markets. Second, the very good economic results achieved with easy peelers in the early 1980s caused an impressive increase in production, but this was greater than the nonetheless noteworthy increase in demand. Thus, the period running from November to January, with the peaking of supplies of ’Nules’, among the most commonly planted varieties, has become very risky. The market can become saturated very quickly, especially if consumption is affected by too warm an autumn. The worsen-
ing situation can then spread and affect the orange trade, where sales come into competition with too many easy peelers.

This disaster scenario goes a long way towards accounting for the catastrophic economic results of a large proportion of growers in 2005-06 and 2006-07, when the three main growers' associations UPA, AVA-ASAJA and UNIOCOAG, announced losses of hundreds of millions of euros. AILIMPO, the lemon and grapefruit interprofessional association, reported that about 20% of lemon production was left unpicked for lack of commercial outlets during these two seasons.

Back in the black in 2007-08 but no consolidation of structures

The 2007-08 season, with a small harvest, was marked by a return to decent economic results for all the stakeholders in the sector. Export prices are reported to have increased by nearly 21% in comparison with 2006-07, more than compensating the decrease of some 20% in the volumes exported. However, this good news seems to be conjunctural and is not a sign of the strengthening of the structure of the sector. On the contrary, certain recent information seems fairly alarming.

A lasting rebalancing of negotiating power in the sector?

Good years are not propitious for calling things into question and very few concrete measures were implemented to handle the lemon crisis during the 2007-08 season. The only one that can be reported is certainly the setting up of an official watch ('lonja de citricos') of prices at production of clementines and oranges, combined with a diffusion system open to all sector stakeholders via the websites of agricultural organisations (associations like asaja: http://www.avaasaja.org, the Valencia regional chamber of agriculture: http://www.agricultura.gva.es, etc.). The lemon sector already had a similar system set up by AILIMPO. The measure is aimed at strengthening growers' negotiating power and better distributing the value-added within the sector. The system of sales according to results, that is to say with no guaranteed price for the grower, is targeted by the supplying of an easily accessible official reference price. However, it is difficult to say whether the indubitable decrease in this type of selling in 2007-08 is the result of the new facility or a natural strengthening of growers' power in years when the harvest is small. The harvest in the 2008-09 season is much more generous and will probably be a good test.

However, it is clear that the 2007-08 season did not bring production and the trade closer together. INTERCITRUS, the clementine and orange interprofessional association, is close to explosion as the production college is claiming that there is partiality in favour of traders.

Control of Mediterranean fruitfly is a central question

Ensuring the absence of live forms of fruitfly (flies or larvae) is a capital issue for the exports that form most of the profitability of the Spanish citrus sector. This is a condition for access to the large and lucrative US market and to the zones in Asia with high development potential (China, etc.). New risk factors now make control more complicated.

First, might the end of direct aid for processing as a result of the reform of the Common Agricultural Policy risk leading to an increase in the fruitfly population in orchards? Certain professionals fear that with an inadequate economic return from industry, growers will no longer take the trouble to collect fruits not sold on the fresh
market and these might become the site of serious additional outbreaks. The threat is all the more serious as the recent restriction of the use of Malathion, the main insecticide used in fruitfly control, mean that new control techniques must be designed. Methods to replace now-banned aerial spraying based on rationalised ground methods and the control of population growth by the release of sterile males have already been tested. However, they must now prove their efficacy on a large scale. As a result and given the scale of production, the decision taken by INTERCITRUS to forbid the harvesting in 2008-09 of the smallest sizes of easy peelers and oranges was greeted with concern by a large proportion of professionals.

Worry with regard to the sustainability of the industrial sector?

Another reason for worry is the end of direct aid for the processing industry on 1 January 2008. It should first be underlined that a worthy intention lies behind the measure as it should rebalance a situation clearly in favour of the processing industry. However, the measure must not threaten the sustainability of the latter, which is a vital sector even if Spanish production, and that around the Mediterranean in general, is aimed at the export of fresh fruits. The processing industry is a complementary feature that can use sorting rejects, an essential aspect for ensuring the competitiveness of supply on the fresh fruit market. The transitory regulation ensures supply of the juice industry until 1 January 2010; producers must deliver 2.3 tonnes of oranges and lemons and 1.3 tonnes of easy peelers and grapefruit per hectare to qualify for aid. However, after this date how can industry offer decent, inciting payment to growers and cover its other costs when the sales price of its products will henceforth depend only on an extremely competitively world market? The problem is a complex one, especially in a country with high labour costs and smaller economies of scale than the gigantic orange juice factories in Brazil and lemon juice factories in Argentina that can achieve throughputs of more than 15 000 tonnes per day. The international market should remain fairly firm in the future (see article) and will probably play a positive role. In addition, Florida is another place with high production costs and has had to solve a similar equation by rationalisation of facilities and strong segmentation of supply, with stress on NFC juices. Getting away from the world concentrated juice market, manufacturing cus-
tomised products and providing good service for customers (short delivery periods, etc.) should certainly be examined. Certain juice processors want a much more radical solution, with their work being considered as a waste management service, at the sector's expense of course!

**Changing varieties: the driving force behind Spanish growth is in trouble**

According to the nurserymen's association in the Community of Valencia (AVASA), sales of certified plants had varied between 4.8 and 5.3 million per year since the end of the 1990s but began to decrease in 2005-06 (4.3 million) before falling to 2.2 million in 2006-07. It is true that the figures show that the orchard growth slowed for orange and was interrupted for easy peelers, with the latter displaying a decrease of some 2,000 ha from 2006 to 2007 in the Community of Valencia, i.e. a little more than 2% of the area. However, this natural adjustment does not seem to be sufficient to solve over-production problems experienced in Spanish citrus growing. The sector requires a more powerful lever for the rapid reduction of excess easy peeler production from November to January.

But above all, might not a continuation of the trend risk endangering the very foundations of the success of the Spanish citrus sector? Spain succeeded in substantially increasing the volumes sold by considerably lengthening the season thanks to varietal innovation in easy peelers and oranges and diffusion to farms while improving the quality of the fruits shipped by replacing mediocre cultivars like 'Marisol' by improved varieties such as 'Oronules' and 'Clemenruby'. In addition to delays in varietal replacement, the situation has already considerably weakened one of the key parts of the sector—nurseries. Of the 38 establishments in the Community of Valencia, about ten have already closed and many other bankruptcies are expected in the near future.

**A plan designed to save the situation**

The whole sector therefore paid great attention to the publication in the Spanish Official Journal of 3 November 2008 of the much-awaited 'Varietal Renovation Plan'. The difficult economic situation experienced by Spain—like the other EU countries—has perhaps encouraged the government to adopt this plan that has been examined for several months or perhaps years. In addition to the importance of maintaining the sector because of its size (300,000 families live directly from citrus growing in the Community of Valencia alone), the strong slowing of the building industry is releasing labour that could perhaps find work in farming.

**A lack of guidance from the regions?**

The aim of the plan is to attack the causes of the crisis by subsidising the varietal reconversion of 18,000 hectares of plantation. It is based on the simple observation that whereas the market is more than saturated with lemons and easy peelers in November-December, there are probably opportunities for developing consumption—and especially that of oranges and easy peelers at the end of the season. All families of citrus fruits are eligible insofar as the plantations are of commercial standard (minimum area and density, etc.). The main condition required for farmers to be able to benefit from the measures is that reconversion makes it possible 'to improve the overall quality of citrus supply'. It can be seen that the Spanish government has only provided a rough pattern in this 'royal decree'. The targeting of the varieties to be reconverted is of capital importance if the plan is to have a degree of effectiveness, and is left to the chambers of agriculture of the autonomous communities; these will then have the task of handling the applications from farmers and judging the appropriateness of each one.

In this context, these bodies will probably have to be directive in order to concentrate efforts on the varieties whose production is excessive;
these are real efforts but nonetheless concern only about 5% of the Spanish citrus orchard area. Part of the lemon and ‘Nules’ clementine areas must be targeted. In addition, the chambers of agriculture must also guide reconversion towards a market window in which there is still room for growth, that is to say mainly spring easy peelers and dessert oranges. However, the latest information gathered seems to indicate that nothing will be imposed on farmers.

The budget is too slender
Can the plan be truly effective in this context? The question can be asked, especially as a fair number of growers consider that the scale of the subsidy is not much of an incentive as at best it covers a quarter of the total investment in reconversion. Thus, the smallest growers, who form the foundation of the sector in the Community of Valencia, may well not participate, especially as the economic crisis has made banks more reluctant. In addition, the limit of 18 hectares of land eligible for subsidy means that large growers cannot carry out large reconversion. Enthusiasm is not great in the Murcia region either, whereas its lemon sector was one of the first affected by the crisis. Ailimpo estimates that a maximum of 3000 ha could be switched to orange and to a lesser extent, grapefruit. Twice this would probably be necessary to settle the over-production problem in a lasting manner. The grubbing up plan is therefore still topical and its implementation will depend on the goodwill of the hitherto reticent public authorities in the region.

Is the planting material ready?
The technical problem of the degree of preparation of the substitute varieties is added to the two problems mentioned above. In oranges, 'Lanelate' and the 'super-late' varieties such as 'Powell' are well mastered but is the same true for easy peelers? The available range of innovative varieties for the spring is still very limited. It seems that the triploids that should normally make it possible to cover this market window still have to prove their value before planting on a large scale. The variety from which a large proportion of these cultivars were bred is ‘Fortuna’, a cultivar strongly susceptible to Alternaria and caution is needed. The time scale needed by the research sector to find reliable solutions is not always compatible with the requirements of growers or politicians.

Determination to continue to gain footholds on new markets
However, export dynamism is a factor of confidence in the Spanish citrus sector. Exporters are still multiplying initiatives to increase their presence on new markets. Russia is the main target. The start of exports by sea in 2006-07 has made it possible to step up shipments strongly, and especially shipments of easy peelers. The Valencian government was to have amplified this initiative by supporting the starting of a regular line using containers but has shied off. It is true that the sharp increase in competition from Egypt, Turkey and Morocco is such as to make people timid. The Chinese market has since opened and is targeted, with this time perhaps the support of the authorities for the opening of the regular line needed to reduce transit time.

This brief review shows that appearances are sometimes misleading. The positive results of the 2007-08 season seem to have strong conjunctural causes. In addition, the very heart of the sector—varietal innovation—is affected by the strong decrease in plantings. Finally, factors over which the sector has no control are making the situation worse, such as the increasingly serious drought and higher energy costs, which have an impact on both the cost of agricultural impacts and that of the transport of fruits. The idea of an orchard restructuring plan is undoubtedly a good one. But there are probably weaknesses in the project put forward by the Spanish authorities. Although the shortage of means can be understood, the lack of orientation towards the citrus varieties or groups most touched by the crisis, that is to say high-season clementine and lemon, can be deplored. Furthermore, the necessary restructuring of the trade sector has not been covered (the Murcia region has 100 packing stations, that is to say an average of 6 500 tonnes handled per station!).

Nevertheless, this plan has the merit of indicating the right direction. It is up to growers to take the future of the sector in hand. It is urgent, especially as the economic crisis will probably not improve the consumption aspect.
Spain - Citrus
Production area
Total: 332 110 ha

Andalucia
83 131 ha
25%

Comunidad Valenciana
79 520 ha
48%

Spain - Areas - Orange
165 103 ha

Murcia
14 865 ha
9%

Valencia
27 329 ha

Alicante
16 000 ha

Andalucia
66 627 ha
40%

Sevilla
29 243 ha

Cordoba
9 878 ha

Huelva
14 282 ha

Almeria
5 879 ha

Castellon
6 192 ha

Bajo Maestrazgo: 2 205 ha

Plana Alta: 1 103 ha

Plana Baja: 1 702 ha

Comp de Morvedre: 1 696 ha

Camp Turquiar: 6 720 ha

Huerta Norte / Oeste / Sur: 6 219 ha

Ribera Baja / Alta: 20 171 ha

Setor: 6 753 ha

Costera: 3 688 ha

Marina Alta: 2 970 ha

Marina Baja: 1 180 ha

Vega Baja: 11 490 ha
### Spain - Citrus areas by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Total</th>
<th>Orange</th>
<th>Easy Peelers</th>
<th>Lemon</th>
<th>Grapefruit</th>
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<td>122 554</td>
<td>43 264</td>
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</table>

**Source:** MAPA - 2007

### Spain - Areas - Easy peelers

**122 554 ha**

- **Comunidad Valenciana**
  - Total: 96 581 ha (79%)
  - Castellón: 36 586 ha
  - Valencia: 52 906 ha
  - Almería: 7 026 ha
  - Huelva: 5 401 ha
  - Sevilla: 1 993 ha
  - Córdoba: 843 ha

- Andalucía
  - Total: 10 249 ha (8%)
  - Sevilla: 6 737 ha
  - Plana Alta: 18 551 ha
  - Camp de Morvedre: 5 980 ha
  - Camp de Tírvila: 0 114 ha
  - Huerta Norte / Oeste / Sur: 9 459 ha
  - Ribera Baja / Alta: 16 564 ha
  - Señor: 5 043 ha
  - Costera: 3 802 ha
  - Marina Alta: 3 780 ha
  - Marina Baja: 267 ha
  - Bajo Maestrazgo: 7 363 ha

*Graphics: Clar - Ciro Ripoll*
CITRUS IN SPAIN

Citrus - World trade 2006-2007

<table>
<thead>
<tr>
<th>Citrus</th>
<th>World trade</th>
<th>Spain Market share</th>
<th>%</th>
<th>Main exporters</th>
</tr>
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<td>27%</td>
<td>1,450 Spanish</td>
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<td>900</td>
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<td>546</td>
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<td>264</td>
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<td>100</td>
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<td>387</td>
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<td>Grapefruit</td>
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<td>215</td>
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<td>37</td>
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<tr>
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<td></td>
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<td>775</td>
<td>Turkey</td>
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</table>

Citrus - Production

- Grapefruit
- Lemon
- Orange

Citrus - Areas

- Spain
- Comunidad Valenciana
- Andalucia
- Murcia

Citrus - Export

by product
- Easy peels
- Orange

by destination
- Western Europe
- Eastern Europe
- Other

Citrus - Spain - Supply calendar

Clementine
- Clemensubri
- Marsol
- Cronules
- Clemenvivas
- Oroval
- Orogrande
- Nules
- Hernandina

Hybrids
- Clemenvilla
- Fortuna
- Nadorcott
- Orange

Orange
- Naveline
- Navel
- Navelate / Lane Late
- Cara Cara
- Salustiana
- Valencia Late

Lemon
- Fino
- Verna

Grapefruit
- Rio Red
- Star Ruby

Graphs: © Charpentier Cedric

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November 2008 No. 161
The 2007-08 winter season confirmed the return of more ample supplies of the EU market. Cumulated arrivals from Florida, the Mediterranean and Central America approached 290,000 tonnes, a slight increase on the 280,000 t in 2006-07. The two seasons form a break with the 230,000 to 245,000 t received just after the nosedive of Florida, the world’s leading producer, following the hurricanes in 2004 and 2005. But Florida is part of the reason for this upsurge in volumes, with some 5 million 17-kg boxes delivered in 2007-08 in comparison with 4.4 million in 2006-07 and 2.1 million in 2005-06. The increase results partly from a harvest that was more generous, although still limited in comparison with the pre-2004 volumes. There is probably a conjunctural component as well as a proportion of the fruits initially destined for the Japanese market was shipped to the EU as fruit size was too small. The continuing of the dazzling arrival of Chinese shaddock is the second component of the larger supplies. After totalling some 3,000 tonnes in 2004-05 they exceeded 45,000 tonnes, making China the third largest supplier of the EU market in terms of quantity.

In this context, fruits from Mediterranean sources and Central America lost market shares. The decrease was moderate for Israel and Spain, which shipped volumes similar to those of 2006-07. It was more marked for Cyprus and even more so for Turkey, handicapped by small fruit size and focused concentrated than ever on the Eastern European markets. The unusual and late arrival schedule followed by Florida fruits as a result of the size problem mentioned above upset the other sources present on the market. Israel sold much larger volumes than usual at the beginning of the season, with arrivals from Florida more present at the end of the winter and in the spring. The average price for the season was very similar to that of 2006-07 in spite of the increase in volumes.

The 2007-08 winter season will be remembered by all the lemon growers in the world as an exceptional one after a succession of very difficult years. Prices rocketed on all the large international markets. However, this undoubted improvement for both fresh lemon and concentrated juice did not reflect the true structure of the market. A strong conjunctural decrease in Mediterranean supply caused the strong increase in prices on the fresh lemon market in Europe. A heatwave in summer 2007 greatly reduced production in Spain and Turkey, the two sources that account for most of EU market supply. The producer countries that currently keep their production for domestic consumption therefore appeared on the international market (Morocco, Tunisia, Egypt, etc.). The US and Japanese markets displayed similar excitement as part of Californian production had been wiped out by frost in 2006. A structural adjustment plan is still being examined in Spain.
Economic results are positive again after two very difficult seasons for a large proportion of exporting countries. This good performance is related to the return of Mediterranean production to a moderate level, in particular as a result of the marked deficit in Spain. At about 2.1 million tonnes, production of this giant producer dropped by more than 15% in comparison with the large harvest of 2006-07 and by about 5 to 10% in comparison with the average. In addition, the Moroccan harvest displayed a distinct deficit and Turkish production was only average and so these countries could not benefit fully from a very open market. The volumes exported by Mediterranean sources totalled some 2.1 million tonnes; this was about 15% less than the preceding season and some 4% less than the average. Exporters concentrated their shipments on the European Union and Eastern Europe at the expense of 'diversification' markets such as the United States. However, after being substantial at the beginning of the season as a result of the development of early clementine orchards in Spain, supply soon displayed a deficit because of the small harvest of full-season clementines ('Nules') in the same country. Supply was particularly limited from January onwards as the harvests of late cultivars were short in all producer countries (all the Spanish varieties, 'Nour' from Morocco and 'Or' from Israel). The season came to a very early end.

### Citrus — Production in the Mediterranean region in 2007-2008

<table>
<thead>
<tr>
<th>000 tonnes</th>
<th>Total</th>
<th>France</th>
<th>Spain</th>
<th>Morocco</th>
<th>Algeria</th>
<th>Tunisia</th>
<th>Turkey</th>
<th>Egypt</th>
<th>Gaza*</th>
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<tbody>
<tr>
<td><strong>Easy peelers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Production</td>
<td>4 878.4</td>
<td>19.2</td>
<td>2 077.1</td>
<td>470.6</td>
<td>111.0</td>
<td>71.0</td>
<td>690.2</td>
<td>123.1</td>
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</tr>
<tr>
<td>Domestic sales</td>
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<td>-</td>
<td>328.0</td>
<td>195.4</td>
<td>111.0</td>
<td>71.0</td>
<td>441.6</td>
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<td>-</td>
<td>-</td>
<td>47.3</td>
<td>24.0</td>
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<tr>
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<td>-</td>
<td>-</td>
<td>128.3</td>
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<tr>
<td>Export sales</td>
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<td>16.0</td>
<td>1 417.2</td>
<td>272.2</td>
<td>-</td>
<td>-</td>
<td>73.0</td>
<td>50.1</td>
<td>28.2</td>
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<td><strong>Orange</strong></td>
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<tr>
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<td>589.1</td>
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<td>31.0</td>
<td>377.7</td>
<td>30.0</td>
<td>4.0</td>
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<td>22.8</td>
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<td>81.1</td>
<td>17.1</td>
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<td>5 372.1</td>
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<td>3 630.4</td>
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<td>247.3</td>
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<td>68.9</td>
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</table>

* estimates / Source: CLAM
Orange

The economic results for the season were satisfactory in Western Europe. As for easy peelers, supply was markedly short, as a result of limited harvest in the large countries supplying these markets (Morocco and especially Spain). The season got off to a difficult start after an unusually late end to the season for ‘Valencia’ from South Africa. The marketing of northern hemisphere production therefore started very late at the beginning of the season as supermarket referencing did not switch until November or even December. Nevertheless, operators remained calm, given the deficit in ‘Naveline’ and ‘Navel’ production. Supply broadened with the change to the late varieties, with a better harvest of both ‘Navelate’ and ‘Valencia’. However, the season started early for the latter with the premature end of that of ‘Naveline’ and ‘Navel’ and demand was healthy in a context free of all competing produce such as strawberries and then stone fruits. Under these conditions, fruits from complementary sources benefited from a very open market, as was seen with the fine season for ‘Maltese’ from Tunisia and for ‘Maroc Late’.

The average season price was high. Supplies for the Eastern European markets were fairly substantial at the beginning of the season, especially as the ‘Navel’ harvests were good in Turkey and Egypt. Nevertheless, the second part of the season was light after frost in Turkey at the end of January.

Eric Imbert, Cirad
eric.imbert@cirad.fr

Citrus — Mediterranean region — Exports by variety in 2007-2008

<table>
<thead>
<tr>
<th>000 tonnes</th>
<th>Total</th>
<th>France</th>
<th>Spain</th>
<th>Morocco</th>
<th>Algeria</th>
<th>Tunisia</th>
<th>Italy</th>
<th>Israel</th>
<th>Cyprus</th>
<th>Greece</th>
<th>Turkey</th>
<th>Egypt*</th>
<th>Gaza*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total easy peelers</td>
<td>2 112.3</td>
<td>16.0</td>
<td>1 417.2</td>
<td>272.2</td>
<td>-</td>
<td>-</td>
<td>73.0</td>
<td>50.1</td>
<td>28.2</td>
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<td>49.6</td>
<td>7.4</td>
</tr>
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<tr>
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<td>1 275.6</td>
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<td>9.5</td>
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<td>3.0</td>
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<tr>
<td>Late</td>
<td>1 201.0</td>
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<td>538.9</td>
<td>195.4</td>
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<td>1.4</td>
<td>3.3</td>
<td>11.9</td>
<td>18.0</td>
<td>45.8</td>
<td>18.9</td>
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<tr>
<td>Bitter</td>
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<td>1.9</td>
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<td>3.8</td>
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<tr>
<td>Total grapefruits</td>
<td>272.7</td>
<td>3.2</td>
<td>38.1</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>81.1</td>
<td>17.1</td>
<td>0.9</td>
<td>131.1</td>
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<tr>
<td>White grapefruits</td>
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<td>38.1</td>
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<td>-</td>
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<td>11.9</td>
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<td>0.5</td>
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<tr>
<td>Other grapefruits</td>
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<td>-</td>
<td>-</td>
<td>69.2</td>
<td>8.8</td>
<td>0.4</td>
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<tr>
<td>Total lemons</td>
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<td>-</td>
<td>305.4</td>
<td>14.4</td>
<td>-</td>
<td>-</td>
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<td>4.1</td>
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<td>223.9</td>
<td>22.9</td>
<td>1.7</td>
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<tr>
<td>Other citrus</td>
<td>6.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>5 968.2</td>
<td>19.2</td>
<td>3 036.4</td>
<td>582.3</td>
<td>-</td>
<td>-</td>
<td>26.0</td>
<td>251.4</td>
<td>172.0</td>
<td>68.9</td>
<td>259.0</td>
<td>724.7</td>
<td>793.8</td>
</tr>
</tbody>
</table>

* estimates / Source: CLAM
### Average import price in France

#### Grapefruit

Average: 0.84 euro/kg

#### Lemon

Average: 0.67 euro/kg

#### Easy peelers

Average: 0.81 euro/kg

#### Orange

Average: 0.62 euro/kg

---

### Monthly average import price in France

#### Grapefruit

#### Lemon

#### Easy peelers

#### Orange

---

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Exports from the Mediterranean area, the main centre supplying the international fresh citrus market, should increase again in 2008-09, after marking time in 2007-08. However, Mediterranean production is very slightly smaller than last season’s moderate volume. But the very strong decrease in production in Italy, a country that exports little, masks the marked increase in that of the heavyweights of international trade. Spain, Turkey and Morocco, between them accounting for nearly 75% of Mediterranean exports, display very high production levels. The season will be the largest or second largest since 2000 and up by 7 to 8% on 2007-08. The export potential of 6.6 million tonnes is thus close to the historic record of 6.7 million tonnes in 2006-07. The increase is in oranges in particular and to a lesser degree in easy peelers, with the quantities of lemon and grapefruit being average to slightly lower than average.

The considerable rainfall in the western Mediterranean in the autumn may increase production levels even more, in particular by increasing fruit size as this tended to be medium to small when the first production estimates were made in September.

<table>
<thead>
<tr>
<th>Easy peelers - Mediterranean</th>
<th>2008-09 export forecasts by country</th>
<th>000 tonnes</th>
<th>2008-09</th>
<th>2007-08</th>
<th>Evolution</th>
<th>Last season average</th>
<th>2008-09 / average</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>1 529</td>
<td>1 417</td>
<td>+ 8%</td>
<td>1 511</td>
<td>+ 1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morocco</td>
<td>332</td>
<td>272</td>
<td>+ 22%</td>
<td>276</td>
<td>+ 20%</td>
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<td></td>
<td></td>
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<tr>
<td>Corsica</td>
<td>16</td>
<td>16</td>
<td>0%</td>
<td>20</td>
<td>- 21%</td>
<td></td>
<td></td>
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<tr>
<td>Israel</td>
<td>52</td>
<td>50</td>
<td>+ 4%</td>
<td>45</td>
<td>+ 14%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>280</td>
<td>222</td>
<td>+ 26%</td>
<td>262</td>
<td>+ 7%</td>
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<tr>
<td>Italy</td>
<td>63</td>
<td>73</td>
<td>- 14%</td>
<td>60</td>
<td>+ 5%</td>
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<td></td>
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<tr>
<td>Cyprus</td>
<td>23</td>
<td>28</td>
<td>- 20%</td>
<td>33</td>
<td>- 32%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>26</td>
<td>27</td>
<td>- 1%</td>
<td>29</td>
<td>- 10%</td>
<td></td>
<td></td>
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<tr>
<td>Egypt</td>
<td>7</td>
<td>7</td>
<td>0%</td>
<td>9</td>
<td>- 13%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2 328</strong></td>
<td><strong>2 112</strong></td>
<td>+ 10%</td>
<td><strong>2 245</strong></td>
<td>+ 4%</td>
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</table>

<table>
<thead>
<tr>
<th>Easy peelers - Mediterranean</th>
<th>2008-09 export forecasts by variety</th>
<th>000 tonnes</th>
<th>2008-09</th>
<th>2007-08</th>
<th>Evolution</th>
<th>Last season average</th>
<th>2008-09 / average</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clementine</td>
<td>1 509</td>
<td>1 420</td>
<td>+ 6%</td>
<td>1 455</td>
<td>+ 4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satsuma</td>
<td>205</td>
<td>160</td>
<td>+ 28%</td>
<td>199</td>
<td>+ 3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mandarin/Wilking</td>
<td>157</td>
<td>142</td>
<td>+ 11%</td>
<td>175</td>
<td>- 10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ortanique</td>
<td>14</td>
<td>17</td>
<td>- 14%</td>
<td>39</td>
<td>- 63%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nova</td>
<td>180</td>
<td>164</td>
<td>+ 10%</td>
<td>177</td>
<td>+ 2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>262</td>
<td>211</td>
<td>+ 24%</td>
<td>201</td>
<td>+ 31%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>2 327</strong></td>
<td><strong>2 114</strong></td>
<td>+ 10%</td>
<td><strong>2 246</strong></td>
<td>+ 4%</td>
<td></td>
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</tbody>
</table>

Source: CLAM

Easy peelers - Mediterranean
Strong export potential but production well spread out in time

Export potential is at a high 2.3 million tonnes, some 4% higher than the average. Spain, controlling some two-thirds of the market, will have a distinctly larger harvest than the ‘small’ one in 2007-08 and the total will be slightly above the normal level. In addition, the two other large exporters Morocco and Turkey announce very large potential exports. The staggering of production seems satisfactory during the critical mid-season period with no surpluses and a level close to average. The harvests of ‘Fine’ in Morocco and ‘Clemenvilla’ in Spain will be large, but Spanish ‘Nules’ clementine supplies that are clearly dominant at this time of the year with production exceeding a million tonnes should be no more than average unless fruit size has increased strongly after the rain in October. It remains to be seen whether the late...
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http://www.mtex.co.il

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sales of early clementines—precisely because of this heavy autumn rain—will result in carried-over volumes and a heavy market. The volumes of early varieties to be sold will be large, at levels similar to those observed in 2006-07. Early clementine production is continuing to gain momentum in Spain. However, the quality of cultivars such as ‘Clemenruby’, ‘Oronules’ and ‘Clemenpons’ leads to forecasting fairly fluid sales, especially as the measures set up for the withdrawal of the smallest fruits may reduce the volumes available. Supplies should also be ample at the end of the season.

The harvest of ‘Nour’ clementine in Morocco will return to a strong level. Production of late Spanish varieties will continue to increase as the new cultivars are counter-balancing the structural decline of ‘Fortuna’. Likewise, the Israeli harvest of ‘Or’—one of the varieties forming a reference at the end of the season—should be fairly large.

Production smaller than average at less than 10 million tonnes gives a false picture of the large volumes that will be available for export in 2008-09. The collapse of Italian production mentioned above is most marked for this family of fruits as frost hit a large proportion of the production of ‘Moro’ and ‘Tarocco’. The countries supplying international trade display production ranging from very high in Egypt, Turkey and Morocco to record in Spain. As a result, the export potential in the Mediterranean is the largest ever, exceeding 3.1 million tonnes. Supply will be large throughout the season. The Spanish ‘Naveline’ harvest, supplying the market in the first part of the season, is large but not as plethoric as in 2006-07. The volumes available should remain large in mid-season. ‘Navel’ production will be medium to large among the Spanish, Egyptian, Turkish and Greek specialists in the heart of international trade in this variety during the winter season. The last part of the season will be generously supplied with both dessert and juice oranges. The ‘Late’/’Navelate’ harvest in Spain will reach a record level, exceeding a million tonnes for the first time. Likewise, the production of ‘Valencia Late’, the main juice orange, will be

---

**Orange - Mediterranean 2008-09 export forecasts by variety**

<table>
<thead>
<tr>
<th>Variety</th>
<th>2008-09</th>
<th>2007-08</th>
<th>Evolution</th>
<th>4 last seasons average</th>
<th>2008-09 / average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navel/Navelina</td>
<td>1 543</td>
<td>1 392</td>
<td>+ 11%</td>
<td>1 400</td>
<td>+ 10%</td>
</tr>
<tr>
<td>Blond</td>
<td>219</td>
<td>187</td>
<td>+ 17%</td>
<td>228</td>
<td>- 4%</td>
</tr>
<tr>
<td>Blood</td>
<td>117</td>
<td>159</td>
<td>- 27%</td>
<td>142</td>
<td>- 18%</td>
</tr>
<tr>
<td>Late</td>
<td>1 307</td>
<td>1 205</td>
<td>+ 8%</td>
<td>1 093</td>
<td>+ 20%</td>
</tr>
<tr>
<td>Total</td>
<td>3 186</td>
<td>2 943</td>
<td>+ 8%</td>
<td>2 863</td>
<td>+ 11%</td>
</tr>
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**Orange - Mediterranean 2008-09 export forecasts by country**

<table>
<thead>
<tr>
<th>Country</th>
<th>2008-09</th>
<th>2007-08</th>
<th>Evolution</th>
<th>4 last seasons average</th>
<th>2008-09 / average</th>
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</thead>
<tbody>
<tr>
<td>Spain</td>
<td>1 555</td>
<td>1 274</td>
<td>+ 22%</td>
<td>1 292</td>
<td>+ 20%</td>
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<tr>
<td>Morocco</td>
<td>305</td>
<td>296</td>
<td>+ 3%</td>
<td>268</td>
<td>+ 14%</td>
</tr>
<tr>
<td>Israel</td>
<td>42</td>
<td>30</td>
<td>+ 38%</td>
<td>31</td>
<td>+ 35%</td>
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<tr>
<td>Tunisia</td>
<td>20</td>
<td>26</td>
<td>- 23%</td>
<td>22</td>
<td>- 10%</td>
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<tr>
<td>Turkey</td>
<td>150</td>
<td>148</td>
<td>+ 1%</td>
<td>180</td>
<td>- 17%</td>
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<tr>
<td>Italy</td>
<td>68</td>
<td>113</td>
<td>- 40%</td>
<td>100</td>
<td>- 32%</td>
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<tr>
<td>Cyprus</td>
<td>14</td>
<td>18</td>
<td>- 20%</td>
<td>22</td>
<td>- 35%</td>
</tr>
<tr>
<td>Greece</td>
<td>250</td>
<td>230</td>
<td>+ 9%</td>
<td>247</td>
<td>+ 1%</td>
</tr>
<tr>
<td>Egypt</td>
<td>780</td>
<td>809</td>
<td>- 4%</td>
<td>699</td>
<td>+ 12%</td>
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<tr>
<td>Total</td>
<td>3 184</td>
<td>2 944</td>
<td>+ 8%</td>
<td>2 863</td>
<td>+ 11%</td>
</tr>
</tbody>
</table>
Importer la différence
Showing our difference

Agrunord,
Votre partenaire
Agrumes
toute l’année!
large in Spain and Morocco, the leading producers of this variety for export. Finally, the Egyptian late orange harvest (all varieties) will continue to increase very rapidly as exports have increased from less than 100 000 t at the beginning of the decade to more than 350 000 t in recent seasons.

---

**Blond orange - Mediterranean 2008-09 export forecasts**

- **04-05/07-08 average:** 228 000 t
- **04-05/07-08 average:** 1 400 000 t

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**Navel orange - Mediterranean 2008-09 export forecasts**

- **04-05/07-08 average:** 1 093 000 t

---

**Late orange - Mediterranean 2008-09 export forecasts**

- **04-05/07-08 average:** 1 093 000 t
The 2007-08 season was marked by a return to fairly large supplies for the EU market, with levels similar to those of before the 2004 hurricanes in Florida. Volumes should be smaller in 2008-09.

Arrivals from Florida should decrease, after exceeding 5 million boxes in 2007-08. First, production is down by about 14%, with 23 million field boxes expected after nearly 27 million in 2007-08. Furthermore, the rise in the value of the dollar against the euro should encourage considerable caution among importers who pay firm prices for these goods, particularly in the current context of economic crisis. Finally, the volumes available for Europe should be smaller than last year when small fruit size obliged exporters to limit their shipments to the very profitable Japanese market. After starting late in recent seasons because of hurricanes or small fruit size, the schedule of arrivals will return to normal. The first batches were delivered in mid-October.

The prospects of a significant increase in production in the coming seasons seem fairly hypothetical. The orchard census conducted in 2008 shows the total is still dwindling, with some 800 000 less trees in 2008 than in 2006. The number of trees halved from 2000 to 2008.

In this context, the other sources should benefit from a more open market in 2008-09. Thus the export volumes planned by Israeli professionals are similar to those of 2007-08 in spite of a fall in production as a result of alternate bearing and frost. The extension of the orchard area was strong, especially for grapefruit since 2003, but was interrupted for religious reasons in 2007-08 (planting is forbidden by the Hebrew calendar in certain years). It should start again in spring 2009. Likewise, the decrease in the Turkish harvest will not necessarily have a negative effect on exports, especially as fruit size has increased after strongly limiting exports in 2007-08. Spanish exports should be fairly stable and distinctly larger than the average. In contrast with the last season, fruit size should tend to be medium to small. In contrast, imports of shaddock from China will probably increase. Volumes exceeded 40 000 t in 2007-08 and generated very poor economic returns.

### Concern about the behaviour of the Russian market

The behaviour of the Russian market is a subject for major concern. Thanks to strong economic growth and the modernisation of the distribution system, consumption of Mediterranean citrus has increased strongly in recent years, reaching about 300 000 t of easy peelers and oranges and nearly 100 000 t of lemons. The destination for some 10 to 15% of all Mediterranean exports, Russia has become a key component of world market balance during the winter period, in particular for countries such as Turkey, Egypt and Morocco that ship a large proportion of their exports to this market.

The new regulations that have come into force for pesticide residues are both ridiculous and a handicap for exporters. The tolerance for certain basic treatment substances is sometimes a tenth of that allowed on the other large world markets and is sometimes perfectly unrealistic. Bilateral agreement protocols have been established between certain supplier countries and the Russian authorities so that exports can continue. Nevertheless, the strict control performed at the border or upstream may make exporters reluctant. This may result this season in decisions between markets less favourable to Russia and the transfer of some produce to the EU.

### And the effects of the economic crisis?

The impact of the economic slump is another reason for concern and the possible effects on the Eastern European markets are beginning to be measured. The strong decrease in the bank guarantees of certain Ukrainian and Russian import companies is an additional risk factor encouraging the switching of goods to the EU.

---

**Grapefruit - Mediterranean - 2008-09 export forecasts**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Spain</td>
<td>40</td>
<td>38</td>
<td>+ 5%</td>
<td>36</td>
<td>+ 12%</td>
</tr>
<tr>
<td>Israel</td>
<td>87</td>
<td>81</td>
<td>+ 7%</td>
<td>82</td>
<td>+ 6%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>15</td>
<td>17</td>
<td>- 9%</td>
<td>22</td>
<td>- 30%</td>
</tr>
<tr>
<td>Turkey</td>
<td>120</td>
<td>131</td>
<td>- 8%</td>
<td>126</td>
<td>- 5%</td>
</tr>
<tr>
<td>Italy</td>
<td>0</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>- 100%</td>
</tr>
<tr>
<td>Greece</td>
<td>1</td>
<td>1</td>
<td>+ 44%</td>
<td>1</td>
<td>- 2%</td>
</tr>
<tr>
<td>Total</td>
<td>263</td>
<td>268</td>
<td>- 2%</td>
<td>270</td>
<td>- 2%</td>
</tr>
</tbody>
</table>

Source: CLAM

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November 2008 No. 161
**Lemon: another productive season, but the deficit remains**

Supply will be larger than in the 2007-08 season, when a historical low level was attained, but supply will nonetheless remain slightly short. Spanish production will return to an average level, enabling normal supplies for exports, the domestic market and industry. In contrast, supplies from Turkey should remain markedly short, probably as a result of the frost that hit orchards at the beginning of 2008. In this context, complementary sources may continue to play a significant role, especially on the Eastern European markets that are supplied mainly with ‘Interdonato’ and ‘Kütdiken’ from Mersin. Italy, where lemon—unlike the other citrus crops—was not hit by frost may manage well. The volumes available in Egypt are still very limited, with production based mainly on local Mediterranean sweet lemon varieties. Production by the other traditional suppliers around the Mediterranean is still dwindling to marginal status, in particular as a result of lasting drought in Cyprus that has led to the abandoning of numerous orchards and plantations in Greece that were not restored after the fatal frost in the mid-2000s.

**Lemon - Mediterranean - 2008-09 export forecasts**

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2007-08</th>
<th>Evolution</th>
<th>4 last seasons average</th>
<th>2008-09 / 2007-08 average</th>
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<tbody>
<tr>
<td>Spain</td>
<td>440</td>
<td>305</td>
<td>+ 44%</td>
<td>418</td>
<td>+ 5%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>5</td>
<td>6</td>
<td>- 9%</td>
<td>8</td>
<td>- 36%</td>
</tr>
<tr>
<td>Turkey</td>
<td>230</td>
<td>224</td>
<td>+ 3%</td>
<td>307</td>
<td>- 25%</td>
</tr>
<tr>
<td>Greece</td>
<td>2</td>
<td>2</td>
<td>+ 11%</td>
<td>3</td>
<td>- 28%</td>
</tr>
<tr>
<td>Italy</td>
<td>60</td>
<td>50</td>
<td>+ 21%</td>
<td>35</td>
<td>+ 72%</td>
</tr>
<tr>
<td>Egypt</td>
<td>23</td>
<td>23</td>
<td>0%</td>
<td>22</td>
<td>+ 4%</td>
</tr>
<tr>
<td>Total</td>
<td>760</td>
<td>610</td>
<td>+ 25%</td>
<td>793</td>
<td>- 4%</td>
</tr>
</tbody>
</table>

Source: CLAM

---

**Few apples and pears in Western Europe while Eastern Europe brings home the pips!**

European pip fruit production was seriously affected by the particularly unfavourable weather conditions in spring 2008 that led to fairly marked losses in most of the production zones in Western Europe. Finally, the Western European (EU-15) apple harvest was down by 7% in comparison with 2007 (6.6 millions de tonnes), that is to say a deficit similar to that of 2006 and the second-smallest harvest of the decade. In contrast, production in the Eastern European countries has returned close to normal with 3.3 million tonnes, that is to say + 103% in comparison with 2007) after last years very large deficit. Total production of EU-27 should therefore reach 9.97 million tonnes (+ 13.6% in comparison with 2007); this is an average level and smaller than the 10 to 11 million tonnes still harvested at the beginning of the decade. The 2008 pear harvest is the smallest in recent years with 2.16 million tonnes, a decrease of 14% in comparison with 2007.
## Citrus — Mediterranean — 2008-2009 export forecasts

<table>
<thead>
<tr>
<th>000 tonnes</th>
<th>Total</th>
<th>France</th>
<th>Spain</th>
<th>Morocco</th>
<th>Algeria</th>
<th>Tunisia</th>
<th>Italy</th>
<th>Israel</th>
<th>Cyprus</th>
<th>Greece</th>
<th>Turkey</th>
<th>Egypt*</th>
<th>Gaza*</th>
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</thead>
<tbody>
<tr>
<td><strong>Total easy peelers</strong></td>
<td>2 327.9</td>
<td>16.0</td>
<td>1 529.0</td>
<td>331.8</td>
<td>-</td>
<td>-</td>
<td>63.0</td>
<td>52.0</td>
<td>22.5</td>
<td>26.2</td>
<td>280.0</td>
<td>7.4</td>
<td>-</td>
</tr>
<tr>
<td>Satsuma</td>
<td>205.0</td>
<td>-</td>
<td>75.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>130.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Clementine</td>
<td>1 508.5</td>
<td>16.0</td>
<td>1 000.0</td>
<td>306.0</td>
<td>-</td>
<td>-</td>
<td>60.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>22.0</td>
<td>4.5</td>
<td>-</td>
</tr>
<tr>
<td>Mandarin/Wilking</td>
<td>157.4</td>
<td>-</td>
<td>92.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>55.0</td>
<td>7.4</td>
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</tr>
<tr>
<td>Ortanique</td>
<td>14.4</td>
<td>-</td>
<td>-</td>
<td>8.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.0</td>
<td>0.8</td>
<td>-</td>
<td>-</td>
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<td>Nova</td>
<td>180.4</td>
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<td>6.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16.0</td>
<td>0.9</td>
<td>-</td>
<td>45.5</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>262.2</td>
<td>-</td>
<td>150.0</td>
<td>11.2</td>
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<td>-</td>
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<td>-</td>
<td>31.0</td>
<td>20.8</td>
<td>4.2</td>
<td>45.0</td>
</tr>
<tr>
<td><strong>Total oranges</strong></td>
<td>3 203.7</td>
<td>-</td>
<td>1 555.0</td>
<td>305.0</td>
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<td>20.0</td>
<td>68.0</td>
<td>42.0</td>
<td>14.4</td>
<td>250.0</td>
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<tr>
<td>Navel/Navelina</td>
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<td>-</td>
<td>790.0</td>
<td>36.5</td>
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<td>125.0</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>2.0</td>
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</tr>
<tr>
<td>Common blond</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>5.0</td>
<td>3.5</td>
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<tr>
<td>Moro-Tarocco</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Maltese</td>
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<td>19.0</td>
<td>-</td>
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<tr>
<td>Sanguinelli</td>
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<tr>
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</tr>
<tr>
<td>Verna</td>
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<td>-</td>
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<td>-</td>
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</tr>
<tr>
<td>Oval</td>
<td>4.0</td>
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<td>4.0</td>
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</tr>
<tr>
<td>Late</td>
<td>1 284.6</td>
<td>-</td>
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<td>193.5</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.8</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total grapefruits</strong></td>
<td>268.1</td>
<td>3.2</td>
<td>40.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>87.0</td>
<td>15.4</td>
<td>1.3</td>
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<tr>
<td>White grapefruits</td>
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<td>-</td>
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<td>-</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>12.0</td>
<td>15.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Other grapefruits</td>
<td>190.2</td>
<td>3.2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>75.0</td>
<td>-</td>
<td>112.0</td>
</tr>
<tr>
<td><strong>Total lemons</strong></td>
<td>777.0</td>
<td>-</td>
<td>440.0</td>
<td>15.3</td>
<td>-</td>
<td>-</td>
<td>60.0</td>
<td>-</td>
<td>5.1</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>6.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6 582.7</td>
<td>19.2</td>
<td>3 564.0</td>
<td>652.1</td>
<td>-</td>
<td>20.0</td>
<td>191.0</td>
<td>187.0</td>
<td>57.4</td>
<td>279.5</td>
<td>780.0</td>
<td>793.8</td>
<td>38.7</td>
</tr>
</tbody>
</table>

* estimates / Source: CLAM
The 2007-08 season was marked by a strong fall in the orange juice market. The price per lb of concentrate was only USD0.90 at the end of September 2008 whereas it had been flying high at about 130 cents on the futures market in New York a year before. After the rise caused by the direct and indirect effects of hurricanes on Florida production, is this the beginning of another descent to hell, as experienced by this market at the beginning of the 2000s? The doubt remains.

It is true that the decrease in world demand for the third season running is a reason for concern. The effect at the retail stage of the strong price increase has had a very negative effect on consumption. The increase of nearly 20% in retail prices in the USA (a little more than a dollar per gallon) resulted in a decrease in consumption of more than 750 million litres in three seasons! The movement is also substantial in the EU, the world’s leading market, ahead of the USA. The decrease is only partly compensated by the still strong increase in Asia and Eastern Europe, stimulated by the healthy Russian and Chinese markets.

Bad news from Florida...

In contrast, the increase in US production in 2007-08—the other factor in the poor performance of this market—would seem strongly conjunctural. News from Florida, the second production zone in the world, is very, very bad.

In spite of a marked recovery in the financial returns for producers, the planted area is continuing to shrink under pressure from urbanisation, and above all crop health problems that are increasing in number and seriousness. The census conducted in 2008 showed that the orchard now totals only about 66 million trees in comparison with 85 million between the mid-1990s and 2004 when the first hurricane hit Florida and spread citrus canker and then citrus greening in 2005. The latter bacterial disease, also referred to as HLB, makes growers fear the worst. Even though there have been no hurricanes, a great number of trees have been lost in the last two years and the worst is to
The effects of greening peak five to seven years after infection in the zones where the disease is endemic. Several press articles predict the collapse or disappearance of the citrus industry in 2015-2020. More rational scenarios based on models developed by the Florida Department of Citrus (FDOC) show that production could fall to 130 million boxes during the same period in case of strong infection, but allowing to much more replanting than is carried out today. As a result, disease-resistant varieties and effective curative methods are being sought. As an emergency measure, FDOC has decided to devote 20 million dollars initially earmarked for marketing to the problem. Several industrial growers in the sector have already had to reduce their orchard areas. The number of juice manufacturing plants decreased from 37 in 2000 to 15 in 2007.

... and better news from Brazil

This context is obviously favourable for Brazil, the world’s leading orange producer and processor. But the list of sanitary problems that are hitting the Sao Paulo region, the main production zone, looks like an exhaustive inventory of all the phytopathological problems that can affect citrus: variegated chlorosis, sudden death disease, citrus canker and greening, detected in 2004. However, the health situation in the sector remains fairly satisfactory. Citrus canker decreased markedly in 2007 and 2008 thanks...
to methods involving the eradication of infected trees. A study conducted in 2007 on a representative sample showed that only 0.1% of the trees analysed were infected. Citrus greening was first detected in 2004 and has since spread to practically all the local authority areas in the eastern part of Sao Paulo state. However, the degree of contamination is reported to be moderate, at least in the large estates, thanks to the methods used to control the vector and to detect and eliminate infected plants. Finally, in spite of unfavourable exchange rates and increased production costs, profitability has improved distinctly in recent years thanks to the increase in world prices. Thus the trend for a decrease in the planted area—in particular to the benefit of sugarcane—has been stopped. The last census even indicated an increase of some 13,000 ha, with a total of 845,000 ha under oranges. Another positive indicator is that some of the four giant companies that control the sector are investing in large development programmes. Thus the Louis Dreyfus group has announced its decision to spend nearly 320 million dollars by 2010 in order to double its export capacity.

**The emergence of China**

China is also emerging from the background, even if it does not yet have the aim of supplying the international market. Production of concentrate was marginal until 2004-05 with less than 3 million gallons SSE, and has increased enormously in the last three years to approach 30 million gallons. Nevertheless, Chinese consumption was estimated to be some 90 million boxes in 2006-07 and it is still a net importer. could it become a significant player on the international market in the medium term, as is already the case for apple juice? The scenario is a possible one, as is shown by the very high consumption of concentrate by Russia.
Greening is the new major enemy for world citrus growing

Yellow dragon disease, the original name of a disease that originated in China, is now breathing fire in the main citrus production zones around the world. The signal has been given for the general mobilisation of all the serious research institutes working on citrus. A budget of 20 million dollars has been released recently by growers and the Florida administration.

The economic consequences of greening show that it is a serious threat. The two bacterial forms that cause the disease, *Candidatus liberibacter asiaticum* and *C. l. africanum*, attack the phloem and cause the trees to wilt, reducing their yield and life. Fruits are deformed and small and soon become unsaleable. As an example, in countries where the disease is endemic, productivity decreases strongly five to eight years after planting and the fruits are no longer of commercial standard.

The list of countries affected became longer during the 2007-08 season. The disease spread from its original infestation area in Asia long ago and reached Africa. It is now attacking the star areas of world citrus growing in America. After Brazil in 2004 and Florida in 2005, respectively numbers one and two of world production, the 'small orchard' in Louisiana was infected in 2008 by the Asian form, reputed to be the most virulent. The alert was also given in California in summer 2008 when the citrus psyllid vector of the disease was discovered. This came after an alert given by Argentinian growers in the large export zones in the north-east of the country where the psyllid is present, while the disease was detected across the border in Paraná state in Brazil.

Mediterranean producers have not yet come up against the disease but must remain vigilant. *Trioza erytreae*, the psyllid that can spread the African form of greening was observed in Madeira in 1994. It has also been present for a long time in the horn of Africa—in the Yemen and Saudi Arabia.

A opportunity for Mediterranean citrus

This market context is beautifully timed for Mediterranean producing countries as the sectors in several countries are approaching overproduction. It could encourage private investors to become interested in a subsector that is under-developed or quite simply non-existent in some countries that nonetheless produce large quantities of citrus fruits (Turkey and Egypt for example). It is also good news for industrialists in Spain, Italy and other EU producer countries that have to pay more for raw material as direct aid for processing has ceased.

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The most suitable soils for growing citrus are slightly acid and well-draining. The choice of rootstock is one of the essential factors for success, giving tolerance or resistance to biotic (soil pests and diseases, degenerescence diseases) and abiotic constraints (acid or alkaline soils, salinity, reaction to cold or drought, etc.). It strongly influences factors such as vigour, the start of production and fruit yield and quality. The risk of contamination by tristeza has led to favouring Poncirus hybrids (Citrange, Citrumelo) as a replacement for sour orange. Disease-free plant material must be used. Today, new rootstocks are bred by hybridisation or the use of biotechnologies. Certification plans have been set up in many countries. They combine the use of healthy plant material and prevention of possible recontamination by inoculum or a disease spread by an insect vector by siting outdoor nurseries in clean zones or by sheltered production in risk zones. The rootstocks are sown, replanted and then shield budded or chip budded, using a bud from a shoot of the desired variety.

It is recommended that the base of the trunk should be set in a slightly raised position at planting to limit attacks by Phytophthora. Tillage is reduced after planting so as not to damage the surface roots. The base of the trunk must be weeded. The maintenance technique used (permanent plant cover, chemical or mechanical weed control) depends on soil/climate and economic constraints.

Preliminary pruning is performed in the early years. Annual maintenance pruning then balances and aerates the foliage and ensures the renewal of fruit-bearing shoots. Irrigation is essential in dry areas and can be in the form of subfoliar sprinkling or trickle irrigation (soakers, drip, etc.). Fertilisation can be combined with irrigation in this case (fertigation) to save inputs and ensure steady mineral nutrition.

Mineral fertilisation must make up for exports in fruits and prunings and ensure the growth of the vegetative organs. Fertilisation includes nitrogen, phosphorus and potassium. Trace elements are sprayed on the foliage. Fertilisation is based on the results of mineral analyses of leaves and soil.

Among growth regulators, gibberellic acid improves the setting of clementines and synthetic auxins increase fruit grade.
The influence of climatic conditions

Citrus originated in south-east Asia. The climate there is equatorial, tropical or subtropical according to the latitude and always strongly marked by a monsoon regime. The year features a hot, humid season (the monsoon season) and a fairly rain-free, often cooler season. The developmental cycle of citrus is keyed into these seasons. The hot, humid period is one of intense physiological activity, with shoot and fruit growth. Vegetative growth halts in the cool, dry period, a feature all the more marked when drought is severe or temperatures low. A marked halting of vegetative growth is essential before any flowering of certain citrus such as mandarin, orange, grapefruit and shaddock. Others with repeat-flowering such as citron, lemon and lime have less strict requirements but react to the same phenomena.

Temperatures between 21 and 30°C are optimum for physiological activity. This is strongly reduced when the temperature is lastingly and significantly higher than 35°C or lower than 13°C. Citrus growing is in fact limited by threshold and ceiling temperatures. Citrus trees are partially or totally destroyed at temperatures lower than 0°C. The extent of the damage depends firstly on frost duration and intensity and secondly on the susceptibility of plant parts and the type of citrus. Thus flowers, young leaves and fruits are more sensitive than branches and trunks. Citron, lime and lemon are more sensitive than mandarin, orange and grapefruit. Temperatures lower than -7°C are generally lethal for citrus trees. Temperatures higher than 50°C also cause damage.

Citrus pests and diseases

<table>
<thead>
<tr>
<th>Citrus diseases</th>
<th>Tristeza</th>
<th>Huanglongbing (greening)</th>
<th>Citrus canker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus/Disease</td>
<td>Citrus Tristeza Closterovirus</td>
<td>Phloem bacteria: Liberibacter africanum, L. asiaticum</td>
<td>Bacterium: Xanthomonas axonopodis pv. citri</td>
</tr>
<tr>
<td>Distribution</td>
<td>All regions except some Mediterranean countries.</td>
<td>Asia, subtropical and tropical Africa, Middle East.</td>
<td>Asia, South America, Florida, certain regions of Africa.</td>
</tr>
<tr>
<td>Symptoms</td>
<td>Dieback of varieties grafted on sour orange (except lemon trees), vein clearing and stem pitting.</td>
<td>Shoot yellowing, leaf mottling, small poorly coloured fruits.</td>
<td>Corky pustules on leaves and fruits.</td>
</tr>
<tr>
<td>Transmission</td>
<td>Aphids (Aphis gossypii, Toxoptera citricida). Psyllas (Diaphorina citri, Tryoza erytreae)</td>
<td>By air and water.</td>
<td></td>
</tr>
<tr>
<td>Quarantine organism</td>
<td>Present in the EU.</td>
<td>Not present in the EU.</td>
<td>Not present in the EU.</td>
</tr>
</tbody>
</table>

Pests and diseases are numerous and can have serious economic impacts, possibly requiring quarantine (material subject to regulations concerning movement) and the forbidding of exports to other production zones to avoid the spread of harmful organisms. The use of tolerant rootstocks is an effective measure in the control of several organisms but the choice of variety is often dictated by the market. In addition to the production of healthy plant material, the control of these pests and diseases generally combines genetic, biological and chemical components in an integrated control framework.
Strong insolation is also better supported when the water supply is satisfactory. Irrigation must be used in citrus growing in arid or very dry regions. Plant water requirements are directly correlated with the climatic parameter total radiation (the main feature) related to insolation, temperature, wind, relative humidity, etc. These parameters are used in water requirement models and irrigation management tools.

Temperature plays an important role in the changes of fruit pigmentation as maturity approaches. Temperatures lower than 15°C cause the disappearance of chlorophyll pigments from the epidermis. This reveals carotenoid pigments. The synthesis of carotenoids (yellow and orange) and lycopene (red, specific to shaddock and grapefruit) is enhanced by a temperature of between 15 and 35°C. Red anthocyanin pigments (blood oranges) require lower temperature but still higher than 12°C.

The synthesis and senescence of the various pigments are thus strongly affected by ambient temperature. In the tropics, the absence of low temperatures means that chlorophyll pigments do not disappear and the fruits remain green. Anthocyanin synthesis does not take place for the same reason and blood oranges remain blond. In contrast, the red pigmentation of grapefruit is more intense. The alternate high daytime temperatures and cool nights in Mediterranean zones create an optimum environment for the breakdown of green chlorophyll pigments and the synthesis of the yellow, orange and red pigments of the various types of orange, mandarin and lemon. The external colour of the fruits is thus very well expressed.

<table>
<thead>
<tr>
<th>Citrus pests</th>
<th>Fruitfly</th>
<th>Thrips</th>
<th>Diaspine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Symptoms</strong></td>
<td>Pricking caused by females laying eggs in the fruits.</td>
<td>Greyish patches in a ring around the fruit stalk (thrips feeding on young fruits).</td>
<td>Scale on leaves, shoots and/or fruits, trees weakened in case of large populations.</td>
</tr>
<tr>
<td><strong>Susceptible species</strong></td>
<td>Mandarin, orange, grapefruit. Mandarins and thin-skinned oranges susceptible.</td>
<td>Orange, mandarin, tangor, tangelo, lemon, etc.</td>
<td>Broad host spectrum.</td>
</tr>
<tr>
<td><strong>Economic impact</strong></td>
<td>Harvest loss.</td>
<td>Deterioration of the outside appearance of fruits.</td>
<td>Deterioration of the outside appearance of fruits.</td>
</tr>
<tr>
<td><strong>Quarantine organism</strong></td>
<td>Not present in the EU.</td>
<td>Not present in the EU.</td>
<td>Not present in the EU.</td>
</tr>
</tbody>
</table>
CLOSE-UP FRUITROP

Citrus Varieties

Photos © Régis Domergue

Clementine

This group of varieties is probably the result of hybridisation of Citrus deliciosa and an orange. Its success — considerable around the Mediterranean — is related to the interesting fruit characteristics (seedless in pure plantations, good colour and flavour) combined with a long sales period. Indeed, clementines are present on markets in the northern hemisphere from the end of September to the end of February thanks to the different cultivars (Marisol, Oroval, Oronules, Nules, Common or Fine, Hernandine, Nour, etc.).

Nova

Present on markets from mid-November to January, this medium-sized fruit is the result of a cross between common clementine and Tangelo. It has interesting qualities: marked skin colour, deep orange tender juicy pulp with no seeds and sweet flavour with low acidity. The fruits must nevertheless be picked rapidly to prevent the swelling of the peel. It is widely grown in Spain (Clemenvilla), Israel (Suntina) and Morocco.

Minneola

A hybrid between tangerine and grapefruit, this large round fruit is characterised by a pronounced stem-end neck. The peel is a particularly strong reddish orange colour. The pulp, with few seeds, has a very special flavour. The variety is grown mainly in Israel and Turkey.

Valencia Late

Originating in the Azores, Valencia is the most commonly planted variety in the world. This medium-sized variety is round and slightly oblong. The peel is thin, well-coloured and slightly grainy. The flesh is very juicy, with 2 to 4 seeds. It is also known as Maroc Late (from Morocco) and Jaffa Late (from Israel).

Navel

A round to oval dessert orange with a strongly developed navel. The peel is grainy, thin and fairly well coloured. The flesh is crisp, fine and not very juicy. Early cultivars (Navaline) and late cultivars (Navelate, Lane Late) in the Navel group are available on northern hemisphere markets from October to May.

Malteuse

This high-quality well-coloured orange is grown almost only in the Cape Bon region of Tunisia, where conditions bring out its full potential. It is medium-sized and slightly oval. The soft peel is slightly grainy and easy to remove. The tender, juicy flesh is little coloured for a blood orange. The flavour is particularly pleasant with sweetness balanced by a good level of acidity.

Salustiana

Very popular in Spain, this blond juice orange is medium-sized to large. The peel is of medium thickness with fine granulation. The flesh is delicate and sweet with a very pleasant taste. It is also seedless.
Eureka

This variety little planted in the Mediterranean forms the greater part of world production. It is widespread in the southern hemisphere. The fruit is of average size, elliptic to oblong in shape with a medium-sized apical nipple that is slender at the base. The peel is fine to medium thick. The pulp is generally seedless and rich in juice with high acidity.

Fino

This cultivar dominates Spanish production and is much grown in the Murcia region. The fruit is a regular spherical or oval shape. The nipple is shorter than that of Verna. The peel is thin and smooth. The pulp contains 5 to 8 pips and is juicier than that of Verna.

Verna

The fruit is medium to large with a pronounced, broad-based nipple. The rough epidermis is fairly thick. The juice has high acidity but extraction yield is only medium. One of the main Spanish varieties.

Limes

The Tahiti lime (Citrus latifolia) is a triploid variety and is the most widespread of the sour limes. The peel is green/yellow to pale yellow and contains an essential oil with a very characteristic odour. The pulp is generally seedless, yellowish green and rich in very sour juice. Another variety, Mexican lime (Citrus aurantifolia), is little exported as it contains a large number of seeds.
Citrus harvesting and storage

Degreening and storage

As fruits approach the ripe stage, green chlorophyll pigments disappear gradually, revealing the other yellow, orange and red epidermis pigments. This change requires cool temperatures lower than 13°C. These temperature conditions are not found in the tropics or in a Mediterranean climate in early autumn when the early varieties are picked. The fruits therefore remain green or are poorly coloured. Degreening is possible if significant breakdown of chlorophyll pigments has started naturally. Degreening is performed by placing the fruits in a chamber with a controlled atmosphere containing 1.0 to 5.0 ppm ethylene. The temperature is set at 22 to 25°C for oranges, and at a lower temperature for lemons, with relative humidity of 85 to 90%. The technique reduces storage time since ethylene stimulates senescence in citrus fruits. The duration of chilled storage can be lengthened by the application of wax or a stretch film reducing respiratory exchange and water loss. In contrast, controlled atmospheres have little or no effect.

Physiological deterioration

This is caused mainly by impacts in the orchard that are revealed later or during storage.

Frost: in the orchard or after the harvest. The skin looks wet and translucent and the segments dry out.

Chilling injury: exposure to temperatures that are above freezing point but lower than the optimum storage temperature. They cause the bursting of the essential oil glands, resulting in the burning of tissue and the appearance of small sunken brown spots on the peel; these may become coalescent. Fungal damage may subsequently occur.

Oleoeelliosis: caused by temperature variations in the field or bruising during harvesting or storage. Symptoms are very similar to those of chilling injury.

Abrasion by brushing: caused by skin fragility, the use of brushes that are too hard or by too high a brushing speed. The upper layers of the skin are eroded, resulting in dry patches of varying width and flow of essential oil that burns the tissue.

Fungal damage

More than 75% of postharvest citrus rots are caused by two Penicillium moulds (P. italicum and P. digitatum). Some rots should not appear during storage if harvesting is performed carefully:

- bitter rot caused by Geotrichum candidum affects fallen fruits or fruits soiled with earth;
- Cladosporium herbarum causes symptoms similar to those of Alternaria citri. Contamination by rotting, infested plant wastes occurs during harvesting;
- black mould rot of peel caused by Aspergillus niger affects wounded or damaged fruits stored at a temperature of over 15°C;
- infection in the orchard by Botryosphaeria ribis, Physalospora rhodina or Diaporthe citri causes a brown and then blackish rot of the skin and the underlying tissues in the stalk zone during storage. It is controlled by orchard or postharvest treatments.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms and parts of the fruit affected</td>
<td>Paling and softening of the skin; white down (mycelium) then appears; covered with blue spores; pulp affected simultaneously.</td>
<td>Slight paling and softening of the epidermis; then bright white down grows in circular layers, covers with green spores from the centre. The entire fruit (peel, pulp) is finally affected, fruit cannot be eaten from the beginning.</td>
<td>Black rot on columella and segments, and/or peel.</td>
<td>Spotting of unripe fruits developing into brown patches that become soft with ripening and then affect the pulp. Marked odour. Degreened fruits very susceptible.</td>
<td>Start: spotted discoloration of peel and then spread of the patches; variable colour with brown patches and finally fruit disintegration. In storage: fine white mycelium with brown areas; characteris-tic odour.</td>
</tr>
<tr>
<td>Infection pathway</td>
<td>Spores on intact epidermis, fruit to fruit contamination.</td>
<td>Spores on wounded epidermis.</td>
<td>Wounds, penetration by the navel and the style scar.</td>
<td>Fruits wounded in the field.</td>
<td>Spores on intact epidermis.</td>
</tr>
<tr>
<td>Site of infection</td>
<td>From packing to consumption.</td>
<td>In the orchard, but above all from picking to consumption.</td>
<td>Orchard and warehouse.</td>
<td>Orchard.</td>
<td>Orchard: splashing with water. Packing: contami-nated washing water. Storage: fruit to fruit contamination.</td>
</tr>
<tr>
<td>Species and varieties susceptible</td>
<td>All varieties.</td>
<td>All varieties</td>
<td>Navel orange, mandarin, lemon.</td>
<td>All varieties, but above all mandarins.</td>
<td>All varieties (orange more susceptible).</td>
</tr>
</tbody>
</table>
The market has behaved fairly well. Domestic demand was satisfactory and competition between regions was not as strong as in 2007 (sales of fruits from south-east France started earlier). Meanwhile, exports by sea continued to grow and partially make up for the structural recession in intra-European trade resulting from increased production in the UK, Germany, etc. Prices were markedly lower than in August but still higher than in 2007.

<table>
<thead>
<tr>
<th>The main fruits</th>
<th>In shares by total volume and expenditure on fruits for the month in France</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grapes</td>
<td>%</td>
</tr>
<tr>
<td>Peach/nectarine</td>
<td>16</td>
</tr>
<tr>
<td>Apple</td>
<td>20</td>
</tr>
</tbody>
</table>

As every year, the end of the season was laborious. However, in spite of the stronger presence of Spanish produce, the volumes to be marketed were smaller than in 2007 as a result of a French production deficit. Demand was particularly sluggish in spite of all this. Stocks formed—especially of yellow peaches.

The market has been fairly satisfactory. White varieties including 'Italia' from Italy gained an increasing share and sold fairly smoothly. Prices were slightly higher than in 2007. The market was more laborious for black varieties whose retail prices were higher. Nevertheless, more limited quantities were available, with 'Muscat' displaying a marked deficit.

Despite the 30-odd ships that have been demolished since the start of the year there was no demand dividend for charter rates in September. A high exit price in Ecuador coupled with uncertain markets in the Med restricted banana chartering. Heavy and persistent rain in South Africa hindered the citrus harvest in the Western Cape. When enough fruit did become available demand and pricing in EU markets had dipped to the point that the annual race to meet the mid October duty deadline didn’t get out of the starter’s blocks.

### SEPTEMBER 2008

**Grapes**

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**Peach/nectarine**

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**Apple**

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### Notes concerning market appraisal methodology

The statistics on the following pages are estimates of quantities put on the market in France. They are only calculated for the main supplier countries and are drawn up using information on weekly arrivals or market release statements by representative operators. The figures in the 'Main fruits' section above are provided by the CTIFL, with SECODIP being the source. The data published in the French market pages are provided solely as a guide and CIRAD accepts no responsibility for their accuracy.

---

**Banana**

<table>
<thead>
<tr>
<th>Price</th>
<th>%</th>
<th>Volumes</th>
<th>Expenditure</th>
</tr>
</thead>
</table>

**Avocado**

<table>
<thead>
<tr>
<th>Price</th>
<th>%</th>
<th>Volumes</th>
<th>Expenditure</th>
</tr>
</thead>
</table>

**Orange**

<table>
<thead>
<tr>
<th>Price</th>
<th>%</th>
<th>Volumes</th>
<th>Expenditure</th>
</tr>
</thead>
</table>

**Grapefruit**

<table>
<thead>
<tr>
<th>Price</th>
<th>%</th>
<th>Volumes</th>
<th>Expenditure</th>
</tr>
</thead>
</table>

**Mango**

<table>
<thead>
<tr>
<th>Price</th>
<th>%</th>
<th>Volumes</th>
<th>Expenditure</th>
</tr>
</thead>
</table>

**Pineapple**

<table>
<thead>
<tr>
<th>Price</th>
<th>%</th>
<th>Volumes</th>
<th>Expenditure</th>
</tr>
</thead>
</table>

**Sea freight**

<table>
<thead>
<tr>
<th>Price</th>
<th>%</th>
<th>Volumes</th>
<th>Expenditure</th>
</tr>
</thead>
</table>

**Indicators**

The trends for the main produce of the month significantly influence the overall situation of the fruit market. A column entitled 'Indicators' discussing these fruits precedes the pages devoted to a selection of exotic and citrus fruits.
Avec Kirikou, 1 surprise à collectionner dans votre sachet de bananes
The market was disappointing even though supply remained moderate. As every year, arrivals increased as the summer shipment schedules came to an end. However, they were similar to those of last year as regards dollar bananas. The marked increase in volumes from Colombia was counter-balanced by just as large a deficit in fruits from Costa Rica. After being strongly present in July and August, Ecuador was more discreet as the volumes available were more limited and massive shipments had left for Russia and above all for the Mediterranean for Ramadan. Deliveries from Africa recovered to a level similar to that of 2007 as the deficit in shipments from Côte d’Ivoire eased and those from Cameroon and Ghana increased. However, they remained markedly smaller than average, as did volumes from the French West Indies.

Demand was abnormally slow for the season both in France and northern Europe. These poor sales seemed to result more from an atmosphere of depression rather than objective factors. Supermarket chains encouraged sales by means of attractive retail prices and numerous promotion operations. In addition, the cooler weather—especially at the end of the month—was favourable for consumption. Finally, although it was more marked than in high summer, competition from the season’s fruits remained moderate, with the prices of plums, apples and black grapes remaining high.

Stable to lower in comparison with those of August, quay prices were slightly lower than average in both France and Germany. The situation was also the same in Spain although a new deficit in Canary Island bananas made it possible to increase prices.
European banana market — Indicators

<table>
<thead>
<tr>
<th>Main origins in Europe</th>
<th>Sources: CIRAD, SNM, TW Marketing Consulting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain - Movement of the price of super extra</td>
<td></td>
</tr>
<tr>
<td>Germany - Green price (GlobalGap)</td>
<td></td>
</tr>
<tr>
<td>Retail price in Europe</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tonnes</th>
<th>September 2008</th>
<th>Comparisons (%)</th>
<th>Total season 2008</th>
<th>Season comparisons (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martinique</td>
<td>7 623</td>
<td>+ 2 843 - 55</td>
<td>106 667 - 22</td>
<td>- 35</td>
</tr>
<tr>
<td>Guadeloupe</td>
<td>4 763</td>
<td>+ 166 + 13</td>
<td>35 936 + 2</td>
<td>- 6</td>
</tr>
<tr>
<td>Canaries</td>
<td>22 947</td>
<td>- 20 - 7</td>
<td>293 426 + 7</td>
<td>+ 12</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>9 609</td>
<td>- 18 - 40</td>
<td>99 878 - 27</td>
<td>- 42</td>
</tr>
<tr>
<td>Cameroon</td>
<td>17 223</td>
<td>+ 19 - 15</td>
<td>207 282 + 16</td>
<td>0</td>
</tr>
<tr>
<td>Ghana</td>
<td>3 147</td>
<td>+ 15 + 63</td>
<td>36 889 + 40</td>
<td>+ 181</td>
</tr>
</tbody>
</table>

Sources: CIRAD, SNM, TW Marketing Consulting

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The market was very difficult for most of the month with supplies being particularly substantial. Nevertheless, Chile was practically absent from the market after being strongly present in 2007 and complementary supply from Kenya—consisting mainly of Hass—was small. However, arrivals from South Africa were substantial until the middle of the month. Above all, the Peruvian season was extended, with volumes remaining massive until the beginning of the second half of the month.

Demand was fairly disappointing. The promotion operations set up with retail chains did not shift as much produce as expected. As a result, large carried-over stocks were available until the end of the month, when the market began to clear. Prices fell for the first two-thirds of the month for both 'Hass' and the few batches of green varieties available (late varieties from South Africa and Peru) and only started to recover right at the end of the month. The monthly price was distinctly below the average.

### SEPTEMBER 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>Volume 2008</th>
<th>Comparisons (%)</th>
<th>Total Season 2007/2008</th>
<th>Season Comparisons (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>526</td>
<td>+413/+391</td>
<td>14,296</td>
<td>+54/+46</td>
</tr>
<tr>
<td>Mexico</td>
<td>63</td>
<td>-91/-91</td>
<td>63</td>
<td>-92/-93</td>
</tr>
<tr>
<td>Spain</td>
<td>141</td>
<td>-42/-100</td>
<td>141</td>
<td>-42/-93</td>
</tr>
<tr>
<td>Kenya</td>
<td>334</td>
<td>-45/-51</td>
<td>3,883</td>
<td>-22/-44</td>
</tr>
<tr>
<td>South Africa</td>
<td>1,765</td>
<td>+35/+81</td>
<td>10,710</td>
<td>+214/+153</td>
</tr>
<tr>
<td>Total</td>
<td>4,829</td>
<td>+31/+26</td>
<td>29,093</td>
<td>+20/+13</td>
</tr>
</tbody>
</table>

### Estimated market releases in France by origin

<table>
<thead>
<tr>
<th>Country</th>
<th>07/08</th>
<th>06/07</th>
<th>05/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>+413</td>
<td>+391</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>-91</td>
<td>-91</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>-42</td>
<td>-100</td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>-45</td>
<td>-51</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>+35</td>
<td>+81</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>+31</td>
<td>+26</td>
<td></td>
</tr>
</tbody>
</table>

### Monthly and annual comparisons

<table>
<thead>
<tr>
<th></th>
<th>Volumes</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2008 / August 2008</td>
<td>-27%</td>
<td>-17%</td>
</tr>
<tr>
<td>September 2008 / September 2007</td>
<td>+27%</td>
<td>-49%</td>
</tr>
</tbody>
</table>
The market has been difficult in August and remained under pressure. Supply was fairly substantial. Deliveries from Argentina were about 25% smaller than average. Nevertheless, shipments from South Africa were still fairly substantial even if they displayed a deficit in comparison with those of 2007. Finally, the significant stocks of fruits from all sources at the beginning of the month added to the weight on the market.

In parallel, demand remained slower than in past seasons in France and also in the rest of the EU (especially in Northern Europe). The traditional back-to-school promotion operations in which large volumes are shifted did not come up to expectations.

In this context, already low prices lost even more ground at the end of the month. The average monthly price was the poorest since 2002, running at 14% below the three-year average.

<table>
<thead>
<tr>
<th>Monthly and annual comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volumes</td>
</tr>
<tr>
<td>September 2008 / August 2008</td>
</tr>
<tr>
<td>September 2008 / September 2007</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated market releases in France</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volumes</td>
</tr>
</tbody>
</table>

In this context, already low prices lost even more ground at the end of the month. The average monthly price was the poorest since 2002, running at 14% below the three-year average.

<table>
<thead>
<tr>
<th>Estimated market releases in France by origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnes</td>
</tr>
<tr>
<td>Spain</td>
</tr>
<tr>
<td>South Africa</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
The market continued to be fairly disappointing. Arrivals were markedly down on the average. First, shipments from South Africa were limited and nearly half the volume received in 2007 as the harvest was smaller this year, with exports running at some 13 million boxes in comparison with more than 14.5 million. Likewise, deliveries from Central America were somewhat down. Shipments from Honduras and the Michoacán state (Mexico) were similar to those of 2007 and continued to peak. In contrast those from Yucatán (Mexico), whose season started at the beginning of the month, were smaller, with the packing yield limited by small fruit size this season. Deliveries from Argentina were marginal, as they are every year.

However, demand continued to be slower than in past seasons, especially in Northern Europe. Moreover, significant stocks formed as a result of poor sales in preceding months and weighed on the market. The results varied from one supply source to another in this context. Sales of South African fruits were fairly fluid as the end of the Argentinian season freed supermarket chain lines. However, operators were unable to increase their price levels. The market remained very laborious for Central American sources until mid-month when the decrease in volumes from South Africa made sales more fluid. Prices dipped for all the suppliers in this zone.

### September 2008

<table>
<thead>
<tr>
<th>Month</th>
<th>Volumes</th>
<th>Price at import stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>8</td>
<td>1.2 Euros/kg</td>
</tr>
<tr>
<td>N</td>
<td>7</td>
<td>1.1 Euros/kg</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>1.0 Euros/kg</td>
</tr>
<tr>
<td>J</td>
<td>5</td>
<td>0.9 Euros/kg</td>
</tr>
<tr>
<td>F</td>
<td>4</td>
<td>0.8 Euros/kg</td>
</tr>
<tr>
<td>M</td>
<td>3</td>
<td>0.7 Euros/kg</td>
</tr>
<tr>
<td>A</td>
<td>2</td>
<td>0.6 Euros/kg</td>
</tr>
<tr>
<td>J</td>
<td>1</td>
<td>0.5 Euros/kg</td>
</tr>
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### Monthly and annual comparisons

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<th>Price</th>
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<td>September 2008 / September 2007</td>
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### Estimated market releases in France

- **Volumes**
  - 2008: 725 tonnes
  - 2007: 15 759 tonnes

- **Price at import stage**
  - 2008: 1.2 Euros/kg
  - 2007: 1.1 Euros/kg
  - 2006: 1.0 Euros/kg

### Estimated market releases in France by origin

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September was a month of shrinking supply, with a decrease in shipments from Israel and Senegal. Brazil gradually moved into first position along mango supplier countries although its shipments were still moderate. The limiting of arrivals was a positive feature on the European market insofar as demand was sluggish throughout the month. This balance between supply and demand favoured continued fairly high prices with a few occasional variations related to fruit quality.

Shipment from Israel decreased gradually throughout the month, resulting in slight market under-supply. The supply movement made it possible to maintain the prices of mangoes shipped by sea in a context of dull demand. In mid-month, the composition of deliveries from Israel changed, with a switch from 'Kent' to 'Keitt'. It seems that the volumes from Israel were smaller than those of the 2007 season. In parallel, shipments from Senegal decreased and became marginal. The unreliable quality of the fruits from the latter source also limited diffusion. The prices mentioned are probably overestimations as they only concern fruits of good quality.

In addition, the supply of Brazilian mangoes increased slowly, consisting essentially of 'Tommy Atkins' intended mainly for the Northern European markets. Here again, moderate supply and sluggish demand resulted in a balanced marked with stable prices. Brazilian fruits were sent to two main destinations in September, with larger quantities shipped to the North American market (the United States and Canada). The higher prices obtained there encouraged Brazilian exporters to prefer North America to the less attractive European market that is also more costly as regards shipping.

Supply did not match demand very well, especially on the French market where preference generally goes to the 'Kent' variety. To make up for the shortage of 'Kent', operators fell back on 'Tommy Atkins' for limited quantities. A few deliveries of 'Kent' in mid-month promised an early start to Brazilian exports of the variety. Finally, only a few containers arrived with no real follow-up in subsequent weeks. These deliveries consisted of fruits lacking in colour and ripeness.

The moderate scale of Brazilian, Israeli and Senegalese shipments resulted in the starting of the Spanish season in a fairly favourable context. The first shipments that arrived at the end of August were fairly small. The volumes increased as the weeks went by but were still contained. The colour and ripeness of these first batches of 'Osteen' mangoes were a bit short. These quality aspects improved rapidly in the following weeks. Arrivals consisted mainly of large fruits. Spanish supplies were an alternative to growth in the greater proportion formed by 'Tommy Atkins' in spite of the high prices asked.

The air mango market remained fairly stable in September. The Israeli and Senegalese export seasons finished simultaneously in the first half of the month, with prices weakening because of uneven fruit quality. The decrease in the volumes released on the market did not affect prices as demand was still weak. In the second half of the month, Brazil took over with shipments of 'Kent' and also of 'Haden' and 'Palmer'. This change in supply affected prices, which rose markedly. A few batches of 'Kent' from Egypt completed supplies. These were sold at EUR3.30-3.50 per kg, falling to EUR3.20-3.30 per kg at the end of the month.
Tension was felt on the pineapple market from the first week and increased throughout the month. Prices remained high at the end of August and operators perceived the fall in prices in the first week of September as a recovery of balance. This continued for three weeks and only seemed to stabilise at the end of the month. Demand was always smaller than supply and was seemingly the main cause of the decrease. To this was added some concern about the quality of the fruits from Latin America. This was very uneven in arriving fruits, which deteriorated rapidly, shortening the storage period. Demand could not cope with the volumes placed on the market and stocks formed gradually. Operators performed frequent clearance sales (at around EUR5.00 per box) to relieve pressure on the market. Supply of 'Smooth Cayenne' was very small throughout the month but sales were still difficult in spite of this. The price fell less as it had not increased as much as that of 'Sweet' in August. The operators who had succeeded in setting up promotion operations continued to sell their fruits a little more easily. However, sales of 'Smooth Cayenne' came under pressure in the second week of the month from the availability of cheap batches of 'Sweet', even if the latter were more fragile and less well coloured. The Eastern European markets that were returning to pineapple closed their doors once again, considering that 'Smooth Cayenne' prices were still high.

September was a month for Benin on the air pineapple market. Good overall fruit quality allowed steadier prices. However, the quality of sugarloaf pineapple supply was more irregular and volumes were thought to be too large for demand. Prices were at EUR1.90 to 2.00 per kg at the start of the month and stabilised at between EUR1.90 and 1.95. Arrivals from Ghana and Cameroon received rougher treatment by the trade and fruit quality was more uneven. Heavy rainfall in Cameroon affected the appearance of the fruits, which frequently lacked colour.

On the 'Victoria' pineapple market, even if supply increased with larger shipments from Côte d'Ivoire, it has to be admitted that demand for this small exotic has not yet restarted. Some problems of appearance were also reported, with fruits not shiny enough. Operators agree that there is a certain lack of interest in pineapple at the moment.
The gathering global economic recession and the potential impact of the credit crunch on the reefer business continued to dominate discussion. The cocktail of rapidly rising production costs, high (but mercifully not rising) fuel costs and higher transportation costs on the one hand and customers committed to keeping prices low for their beleaguered consumers on the other and you have a potentially toxic mix. Top this with some highly-geared multi-nationals, failing banks and a chronic shortage of credit and it’s a wonder the widespread panic that continues to infect stock markets has not cascaded into the reefer dynamic. And yet in the middle of this maelstrom, the availability of top end specialised reefer tonnage is so tight that operators managed to secure double-digit percentage increases on 12-month TC deals without too much trouble. While charterers grudgingly acknowledge the rationale behind the new status quo, how they assimilate all the increased supply chain costs into an acceptable CIF proposal to their customers remains an issue. If historical precedent is a reliable guide the reefer business should escape the worst of the ravages of a global economic downturn. However the general reduction in global trade will surely have an impact on a number of variables that, in turn will influence the specialised reefer charter market in the short and medium term. Firstly, how will the container lines react to diminishing demand and an oversupply of capacity? With such expensive newbuilds now on the water, can they afford to drop slot rates? Will they attack the reefer trade lanes more aggressively? Is there sufficient a) demand, b) infrastructure on the principal reefer routes, or c) sufficient equipment to support and/or justify such an assault? The next 12 months will also be a measure of the resilience of the specialised reefer mode in the face of more fragmented competition from the container lines. At midnight on 17 October the conference system for the container lines was officially abandoned – while this will not stop operators forming shipping consortia the consortia members will not be allowed to consult on capacity issues or pricing, notably surcharges such as terminal handling charges, insurance premiums, BAFs and CAFs. This is likely to lead to a period of some uncertainty and pricing instability as shippers exercise their new found freedom. The lines have been able to grab a large slice of market share from the reeferers over the past decade. Theoretically there is plenty more for them to take - realistically however and for a number of widely differing reasons, a large percentage of the remainder of the cake may never containerise. One way or another it promises to be a fascinating next 12 months.

Despite the 30-odd ships that have been demolished since the start of the year there was no demand dividend for charter rates in September. A high exit price in Ecuador coupled with uncertain markets in the Med restricted banana chartering. Heavy and persistent rain in South Africa hindered the citrus harvest in the Western Cape. When enough fruit did become available demand and pricing in EU markets had dipped to the point that the annual race to meet the mid October duty deadline didn’t get out of the starter’s blocks.

The independent news and information service for the reefer and reefer logistics businesses

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Tel: +44 (0) 1494 875550
Email: info@reefertrends.com

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## Wholesale market prices in Europe

### September 2008

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Note: according to grade

These prices are based on monthly information from the Market News Service, International Trade Centre UNCTAD/WTO (ITC), Geneva.
MNS - International Trade Centre. UNCTAD/WTO (ITC), Palais des Nations, 1211 Geneva 10, Switzerland
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New opening days from 2009!
Wednesday to Friday

FRUIT LOGISTICA
Berlin, 4 – 6 February 2009

International Trade Fair for Fruit and Vegetable Marketing
www.fruitlogistica.com
Katopé’s diversified production base allows to produce and to ship a huge variety of fresh produce throughout the year, including citrus fruit like easy peelers, grapefruit, oranges and lemons.

All Katopé growers and supply partners are committed to advanced safety, ethical and environmental standards.