Offering you the best of nature

From the exceptionnal « terroir » of Marrakech, our hand-picked Nadorcott mandarine set itself apart with its unique flavor. The careful isolation from seed-varieties pollination, ensures a seedless flesh. The fine, brilliant skin shelters a juicy fruit, with great aromatic finesse.
Wonderful challenges needed to make a wonderful year... To judge by reading the latest exciting study by CEP [French Agriculture Ministry Centre for Studies and Strategic Foresight], 2014 will be a truly wonderful year for the fresh fruits and vegetables industries! Actually, the study confirms using figures what the sector knows from experience: in France, it is the highest SPGs (socio-professional groups) who consume the most fruits and vegetables. The obvious and dramatic counterpart of this is that the more modest SPGs refrain from fresh fruits and vegetables. The picture becomes even darker when we realise that young people find them utterly repugnant. The findings are nothing dazzling but, more importantly, there is little sign of any solutions to this fatal trend. Price: true, it is high for certain products, but very low for others (primarily the banana). Competition: very lively and highly innovative on the part of the processed product agro-industrial sector, especially dairy manufacturers. Image: fruits and vegetables are ridiculed and taken advantage of by their competitors. Their image is also often corroded by sanitary scandals, proven or otherwise, and the highly widespread ignorance of the media, which verges on stupidity and irresponsibility. Appealing to the sacrosanct health effect: it is now evident that the messages on healthy nutrition (5 times a day, 10 portions a day, etc.), very often received as “bossing”, are falling on stony ground. So all the players in the industry (upstream to downstream) need to learn some real lessons in order to revitalise the sector and restore its good image. I will stop there, as we are starting to slip into good wishes and good intentions which sound very much like doublespeak, and which we will have to hear throughout this time of year. The truth lies elsewhere...

Denis Loeillet
**Banana**

**December 2013**

The good balance recovered in November held up in early December, but gradually deteriorated in the run-up to the end-of-year holidays. On the one hand, the banana supply, which was scarcer in November, returned to a seasonal level, or even slightly higher. Indeed, African imports, which had started to wane in November, continued their fall, compensated for by a slight rise in volumes from the French West Indies, the shortfall in which seen since this summer narrowing. Hence the combined shipments from Africa and the French West Indies remained near average for the season. Furthermore, the dollar banana supply returned to a higher level, slightly above average (+7%) in December, despite the implementation of Christmas programmes in Northern Europe. Indeed, the Colombian shortfall was compensated for by an excess from Ecuador and Costa Rica. On the other hand, demand in Northern Europe maintained its good vitality. In Eastern Europe, the presence of promotions and the run-up to the Saint Nicholas holidays helped maintain very good sales at the beginning of the month. However, the vitality on these various markets dipped toward mid-December, in the run-up to the end-of-year holidays. In Southern Europe, demand was a bit less active, because of the fall in the promotional intensity and the late start to the citrus season, volumes of which quickly rose with highly competitive prices. Hence some stocks started to form from week 50, and built up rapidly until the end of the month. Green banana prices, exhibiting a seasonal level until the end of the month. Green banana prices started to quickly rise with highly competitive promotional intensity and the late start bit less active, because of the fall in the days. In Southern Europe, demand was a personal level, or even slightly higher. In-...
Banana

World banana market: a big deal. The world banana market is not doing badly. While on the price side, our conclusions should be restrained, on the volumes side it is still boom time. Over the first ten months of 2013, the two biggest import zones (EU and United States) received 5% more volumes than for the same period in 2012, and 7% above the 2010-11-12 three-year average. Over this period, imports rose by more than 450,000 tonnes, i.e. the annual shipments of a country like Honduras. The United States consumed 150,000 tonnes more this year (deducting re-exports to Canada). All the big dollar sources went up on this market, with the notable exception of Costa Rica, whose presence decreased by 2% between 2012 and 2013. Guatemala is in a very strong growth phase, with a rate of 9% and volumes reaching 1.4 million tonnes in just ten months, i.e. a 35% market share. Ecuador got back on course in 2013, starting to rise again (+3%), but is only the number three supplier. Honduras, Colombia and the newcomer Mexico are gaining ground by increasing their supply faster than the average market growth. Peru, a source of organic and fair trade certified bananas, fell steeply by 13%.

In Europe imports, like consumption, are following a positive trend. Imports are up 6% from 2012. Dollar sources, like the ACPs, are contributing to increasing the supply. Only Ecuador is sliding on this market, down 2%. All the other suppliers are on the rise, especially Panama (+33%) and Mexico (+218%) for dollar bananas, and Cameroon (+21%) and Côte d’Ivoire (+14%) for the ACP group of countries. Note that Belize, Suriname and Ghana came to a halt in 2013. If we add European production (Cirad estimate), which is down 7% due to Martinique and the Canaries, we get a record consumption of 4.5 million tonnes over ten months, up 4%. Over the first twelve months (November 2012 to October 2013), estimated consumption amounted to 5.3 million tonnes, i.e. 200,000 tonnes more than one year previously.

Source: Cirad

Banana - January to October 2013 (provisional)

<table>
<thead>
<tr>
<th>Source</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Difference 2013/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-27 — Supply</td>
<td>4,342,764</td>
<td>4,283,286</td>
<td>4,475,670</td>
<td>+4%</td>
</tr>
<tr>
<td>Total import, of which</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFN</td>
<td>3,863,009</td>
<td>3,766,133</td>
<td>3,994,327</td>
<td>+6%</td>
</tr>
<tr>
<td>ACP Africa</td>
<td>2,954,919</td>
<td>2,322,299</td>
<td>4,482,521</td>
<td>+14%</td>
</tr>
<tr>
<td>ACP others</td>
<td>419,927</td>
<td>391,968</td>
<td>423,675</td>
<td>+1%</td>
</tr>
<tr>
<td>Total EU, of which</td>
<td>479,755</td>
<td>517,154</td>
<td>481,343</td>
<td>-7%</td>
</tr>
<tr>
<td>Martinique</td>
<td>151,229</td>
<td>157,472</td>
<td>137,718</td>
<td>-13%</td>
</tr>
<tr>
<td>Guadeloupe</td>
<td>48,726</td>
<td>52,849</td>
<td>45,043</td>
<td>-15%</td>
</tr>
<tr>
<td>Canaries</td>
<td>262,261</td>
<td>289,294</td>
<td>272,775</td>
<td>-6%</td>
</tr>
<tr>
<td>USA — Import</td>
<td>3,501,745</td>
<td>3,649,854</td>
<td>3,822,131</td>
<td>+5%</td>
</tr>
<tr>
<td>Re-exports</td>
<td>434,429</td>
<td>420,189</td>
<td>447,287</td>
<td>+6%</td>
</tr>
<tr>
<td>Net supply</td>
<td>3,067,317</td>
<td>3,229,665</td>
<td>3,374,844</td>
<td>+4%</td>
</tr>
</tbody>
</table>

Sources: EU: Cirad, Eurostat (excl. EU domestic production) / Source USA: US Customs

EUROPE — IMPORTED VOLUMES — DECEMBER 2013

<table>
<thead>
<tr>
<th>Source</th>
<th>November 2013</th>
<th>December 2012</th>
<th>2013 cumulative total compared to 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>French West Indies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cameroon/Ghana/Côte d’Ivoire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surinam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canaries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dollar:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Estimated thanks to professional sources / * total all destinations
FRUIT LOGISTICA 2014
BERLIN
5|6|7 FEBRUARY
WWW.FRUITLOGISTICA.COM

in cooperation with
FRUCHTHANDEL
MAGAZINE

Promo Intex
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78100 Saint Germain en Laye
Tel. +33 1 39 62 11 93
Fax +33 9 70 06 82 33
www.fruitlogistica.com
p.canovamenke@promo-intex.com

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The orange market remained extremely difficult in December. Naveline volumes available at the production stage maintained a very high level, with sometimes heterogeneous quality in certain very ripe batches. Demand did not improve, either for Naveline or Salustiana. Naveline prices registered another fall at the import stage, reaching the lowest level recorded since 2004-05. The trend was the same for Salustiana, rates of which also reached a historic low point.

*Orange variety of the month: Maltaise.* 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.

A fall in Maltaise production bucking the trend in 2013. According to information from the Tunisian Ministry of Agriculture, the Maltaise harvest is set to be around 120 000 t in 2013-14, as opposed to approximately 135 000 t on average for the past five seasons. This fall of approximately 10% is due to an abnormal level of physiological dropping in the region of Cap Bon, where production is primarily concentrated, and to a structural phenomenon of an ageing cultivation stock. It goes against Tunisia’s overall production trend, which should continue to rise to reach approximately 355 000 tonnes. In the space of ten years, the Tunisian citrus harvest increased by more than 100 000 t, thanks to a cultivation area growing by on average 700 ha per year during this period. Despite the fall in production, exports of Maltaise, which represent only a small proportion of the harvest, should be around 20 000 t.

![Graph of Orange - France - Import price](image)

### Type | Average monthly price euro/15-kg box | Comparison with average for last 2 years
---|---|---
Dessert oranges | 8.10 | - 6 %
Juice oranges | 9.00 | - 7 %

### Type | Comparison
---|---
Dessert oranges | - 13 %
Juice oranges | - 6 %

### Varieties by source | Comparison
---|---
Naveline from Spain | - 13 %
Salustiana from Spain | - 6 %

**Observations**

- Volumes at the production stage still very high, though sales still lower than last year, despite the particularly competitive price levels. - 8 %
- Shipments at a below-average level. - 10 %

**Source:** Tunisian Ministry of Agriculture

**Source:** CLAM
Thanks to its recognized physical mode of action, Citrole, a high purity biodegradable paraffin oil formulation, offers numerous benefits to the production of citrus fruits:

- Easy to use product with a Broad efficacy spectrum
- No development of resistance by targeted pests
- Safe for operators and consumers,
- Limited impact on beneficial species, harmless to mammals and birds
- Safe for the environment – readily Biodegradable

Approved for use in organic agriculture according to regulation (EC) 834/2007 and (EC) 889/2008
Grapefruit

December 2013
The traditional decline in interest in the grapefruit during December did not help the market to pick itself up. The situation remained under control for Florida. Demand, although slow, proved a bit more dynamic than last season, whereas imports remained distinctly short. Prices maintained a practically stable near-average level. The market remained extremely tough for Mediterranean fruits. The competition intensified further, with each source trying to make up for the delay in sales originating from the beginning of the season. However, demand remained very slow. The downward price trend continued, with the level among the lowest ever recorded.

2013-14 Floridian citrus production: further cuts. The Florida Department of Citrus has once more revised its production forecast for the State’s two flagship citruses downward. The orange harvest was slashed again by 6 million field crates, mainly because of abnormally high fruit dropping, probably arising from the impact of greening. With 115 million field crates expected, the Floridian harvest should be the smallest ever recorded, 17 % below average for the past four seasons. The long-term orange juice market has bounced back strongly, with 148 cents/pound approaching its highest level for the year. The production trend is not the best for the grapefruit. The harvest has also fallen to its lowest level, with 16.5 million field crates, down 15 % on the average for the past four seasons. While maturity has returned to a normal level, the size range is still well below average, and even last season’s average (see grapefruit article).

Source: FDOC

2014 Argentinean lemon production: hard hit by the frost of 2013. A fall was expected due to the severity of the frost occurring in the Southern winter of 2013, but its magnitude has been astounding. The USDA predicts that Argentinean lemon production should not exceed 750 000 t in 2014, down more than 40 % from 2013 and from the average for the past four years. If this estimate is confirmed, 2014 would be the smallest lemon harvest since the late 1990s. The hardest hit outlet should be the industrial sector, which would see its volumes of raw materials processed halve in comparison to 2013. This should push up the concentrated juice and essential oil rates, given the dominant position held by Argentina on these markets.

Source: USDA

<table>
<thead>
<tr>
<th>Type</th>
<th>Comparison</th>
<th>previous month</th>
<th>average for last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tropical (Florida)</td>
<td>- 21 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediterranean</td>
<td>+ 13 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Average monthly price euro/box 17-kg box eq.</th>
<th>Comparison with average for last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tropical (Florida)</td>
<td>17.35</td>
<td>- 1 %</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>9.70</td>
<td>- 8 %</td>
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</table>

<table>
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<tr>
<th>Type</th>
<th>Comparison</th>
<th>previous month</th>
<th>average for last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>+ 5 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td>- 21 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Israel</td>
<td>+ 35 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sources</th>
<th>Comparison</th>
<th>previous month</th>
<th>average for last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>+ 5 %</td>
<td></td>
<td></td>
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<tr>
<td>Florida</td>
<td>- 21 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Israel</td>
<td>+ 35 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Observations
Imports down from November, though slightly above average. Better export flow restored to the former Eastern Bloc. - 5 %
Incoming shipments falling, and still considerably below average. - 28 %
Volumes at a moderate level, but well above average in an attempt to make up for the delay originating from the beginning of the season. - 13 %

Source: USDA

- 2014 Argentinean lemon production: hard hit by the frost of 2013. A fall was expected due to the severity of the frost occurring in the Southern winter of 2013, but its magnitude has been astounding. The USDA predicts that Argentinean lemon production should not exceed 750 000 t in 2014, down more than 40 % from 2013 and from the average for the past four years. If this estimate is confirmed, 2014 would be the smallest lemon harvest since the late 1990s. The hardest hit outlet should be the industrial sector, which would see its volumes of raw materials processed halve in comparison to 2013. This should push up the concentrated juice and essential oil rates, given the dominant position held by Argentina on these markets.

Source: USDA

2013-14 Floridian citrus production: further cuts. The Florida Department of Citrus has once more revised its production forecast for the State’s two flagship citruses downward. The orange harvest was slashed again by 6 million field crates, mainly because of abnormally high fruit dropping, probably arising from the impact of greening. With 115 million field crates expected, the Floridian harvest should be the smallest ever recorded, 17 % below average for the past four seasons. The long-term orange juice market has bounced back strongly, with 148 cents/pound approaching its highest level for the year. The production trend is not the best for the grapefruit. The harvest has also fallen to its lowest level, with 16.5 million field crates, down 15 % on the average for the past four seasons. While maturity has returned to a normal level, the size range is still well below average, and even last season’s average (see grapefruit article).

Source: FDOC
Rugby I Like, Praline®
I LOVE!

Nicolas Mas, French international prop

"Choose Praline® to top up your energy, just like me"
December 2013

The recovery of activity felt in the second half of November was confirmed. Sales of Spanish Nules clementines, which made up most of the supply, registered a good level, with prices remaining near average. In this context of strong Iberian competition, the Moroccan Fine maintained a discreet profile in the EU, with the rise in rates on the Russian market also providing encouragement to increase shipments to this destination. Average volumes of Clemenvilla rounded off the Spanish supply to the EU. In France, the short supply of Corsican clementines was sold off at very high prices on a niche market.

### Easy peelers

**Varieties**

- Easy peelers variety of the month: Or. ‘Or’ is a hybrid of ‘Temple’ and ‘Dancy’ and was bred by the Volcani Center in Israel. It is a medium-sized fruit recognisable by fairly marked grooves running from the base of the peduncle and the occasional presence of a small fruit embryo. The skin is fairly pale orange, of medium thickness and is easily removed. The segments are soft and juicy with few pips. The flavour is very pleasant thanks to a good sugar:acid balance.

- **Another tough blow for Californian citruses.** Joel Nelsen, Chairman of California Citrus Mutual (California’s main citrus producers’ association) concluded the Christmas message on his website with "times are hard". Unfortunately the facts have proven him right. Already stricken by the arrival of greening in early 2012, the industry suffered a heavy frost in December, when 75 to 80% of the harvest was still on the trees. Temperatures fell to between -1 and -4°C for seven nights, from 4 to 11 December, in the southern part of the San Joaquin valley. According to the latest survey by the USDA, this zone encompasses 20% of the lemon and grapefruit cultivation area, two thirds of the Valencia planted area and practically all of the Navel and small citrus plants. No official estimate of the losses is to be issued before the end of January. However, according to professional sources, they are highly significant, although less than in 2007. The latest figures proposed are around 30 to 40%, with small citruses more affected than oranges. California produces approximately 3.5 million tonnes of citrus annually, 2.8 million tonnes of which is aimed at the fresh market (local and export).

**Prices**

- Varieties: Average monthly price euro/kg, Comparison with average for last 2 years

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Average monthly price euro/kg</th>
<th>Comparison with average for last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clementine</td>
<td>0.88</td>
<td>-1%</td>
</tr>
<tr>
<td>Hybrids</td>
<td>0.80</td>
<td>+6%</td>
</tr>
</tbody>
</table>

**Volumes**

- Varieties: Comparison previous month, average for last 2 years

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Comparison previous month, average for last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clementine</td>
<td>-1%</td>
</tr>
<tr>
<td>Hybrids</td>
<td>+14%</td>
</tr>
</tbody>
</table>

### Observations

- **Volumes shipped considerably above average, due to fairly lively demand.** +5%
- **Late growth of volumes, with the season getting into full swing only in the first ten days of December. Supply below average throughout the month because of the production shortfall.** -26%
- **Limited shipments to the EU, because of strong Spanish competition and a Russian market finally on an improving trend after a very tough beginning to the season.** -32%
- **Shipments at an average level, as with the previous two seasons.** +13%
Avocado

December 2013
The holiday period did not do operators any favours. The Hass supply level proved very high. Chilean imports remained very high, and counterbalanced the Israeli shortage, in a context of stable Spanish imports. Meanwhile, demand proved disappointing, even under the promotion programmes in the supermarket sector. The market was particularly tough for small fruits (sizes 22, 24, 26 and then 20 at the end of the month), still overabundant in the Chilean supply. Prices, low for this market segment, were in line with the average for previous years for sizes 14, 16 and 18. The green varieties market held up well, thanks to a very short supply level from both Spain and Israel. The average monthly price exhibited a roughly average level for these fruits.

US market open to the Spanish Hass. This is a sweet victory for the Spanish avocado industry, after years of procedures and studies demonstrating that the Spanish Hass was not hosting fruit flies. The decision, announced by the USDA in late December, takes effect at the beginning of January. Although the volumes aimed at this distant market should remain restricted (the USDA allows for fewer than 300 tonnes per year in its economic impact study), this makes a fine trophy for the Spanish avocado, which is a tribute to the professionalism of the producers and shippers of the Malaga region, from where most of the volumes aimed at the international market originate.

Mexican avocado: stable production for 2013-14, but cultivation area still in rapid growth. With an expected harvest of approximately 1.3 million tonnes, the Mexican avocado should just about equal last season’s mark, and remain by far the world leader. This status quo, a consequence of difficult weather conditions in Michoacán State, does not reflect the growth of the Mexican cultivation area, which continued to expand at a frenetic rate last season: just over 17 000 ha were planted, taking the country’s surface areas of “green gold” to 168 000 ha. Michoacán, the flagship state for this crop, where three-quarters of the surface areas are packed in, saw its cultivation area grow by just under 10 000 ha. There was also a major increase in Jalisco, the neighbouring state which could soon obtain approval to export to the United States. The cultivation area amounts to 13 400 ha, up 2 400 ha from last season.

Varieties

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Average monthly price euro/box</th>
<th>Comparison with the last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>5.00-6.00</td>
<td>- 1 %</td>
</tr>
<tr>
<td>Hass</td>
<td>7.00-9.00</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Comparison

<table>
<thead>
<tr>
<th>Varieties</th>
<th>Comparison with previous month</th>
<th>Average for last 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>=</td>
<td>- 42 %</td>
</tr>
<tr>
<td>Hass</td>
<td>↗</td>
<td>+ 37 %</td>
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</table>

Sources

<table>
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<tr>
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<th>Average for last 2 years</th>
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</thead>
<tbody>
<tr>
<td>Chile</td>
<td>↗</td>
<td>+ 92 %</td>
</tr>
<tr>
<td>Mexico</td>
<td>↗</td>
<td>+ 44 %</td>
</tr>
<tr>
<td>Israel</td>
<td>↗</td>
<td>- 22 %</td>
</tr>
<tr>
<td>Spain</td>
<td>↗</td>
<td>- 27 %</td>
</tr>
</tbody>
</table>

Observations

- Hass incoming shipment tempo still as high and still as irregular. (+ 42 %)
- Incoming shipment tempo still well above average, yet moderate. (+ 43 %)
- Volumes well below average for the past two years, both for Hass and green varieties (Ettinger, Pinkerton). (- 6 %)
- Hass imports average, but volumes of green varieties (Fuerte) very short. (- 20 %)
Our ambitions, to offer you ripening solutions tailored to your requirements. Backed up by a structure with cutting-edge technologies, our know-how dedicated to ready-to-eat and triggered fruit, and all types of packing, is based primarily on the experience of our teams.

Our commitments, providing you with a daily service from the sources Brazil, Chile, Colombia, Dominican Republic, Israel, Kenya, Mexico, Peru, South Africa, Spain, Tanzania, Zimbabwe... with optimum quality ensured all year round.

Our expertise, the ability to develop partnerships based on quality projects, and jointly anticipate new market developments.
December 2013

December was marked by a fall in the overall supply of Sweet from Costa Rica. Nonetheless, rates did not take off since demand remained rather flat throughout the month. So the slight but regular increase in prices was more due to weakness in the supply than to real liveliness in demand. The decrease in the supply forced certain operators to procure at a higher price on the wholesale markets to satisfy their trade commitments. The strong demand from Eastern Europe contributed to sales fluidity on the North European markets (especially Germany and the Netherlands). However, against all expectation, it was instead gloom which prevailed on the Southern markets (Spain and Italy), which exhibited little demand. Cayenne sales remained fairly limited, and although the supply saw a slight rise in the middle of the month, the prices charged remained fairly stable despite some quality concerns.

As is often the case in December on the air-freight market, the supply was particularly strong in the first half-month, though demand was not in place for the fruit. The availability of large batches in the hands of operators unused to handling these volumes had the consequence of slowing down sales and bringing down rates. The reduction of stocks at the beginning of the second half-month made for livelier demand, and stronger rates. The Sugarloaf supply, which remained fairly limited throughout the month, had no trouble in finding its place, with high rates between 1.80 and 2.00 euros/kg and some peaks above that level.

The Victoria supply was unbalanced by the abundance of small sizes. Sales were not very dynamic. The rate range varied greatly depending on the stocks.

### Fruits and vegetables at the heart of social inequality in France

While fruits and vegetables are highly prized in the agribusiness sector, and form a basic part of the diet of the better-off in France, the more deprived sections reject them on grounds of their price. Indeed the poorest households buy less of them than the richest, which dedicate a major part of their food budget to them, and more particularly to fruits. The management category consumes much more fruits and vegetables than the workers, with a gap of 50% for fruits and 24% for vegetables. This approach, based on the job classification terminology used by INSEE [French Institute for National Statistics] may be supplemented by an approach based on revenue differences. The work by INRA [French national Institute for Agricultural Research] based on the 2007 Worldpanel data, relating to the purchases of 2,765 households, also confirmed

(continued on page 16)
PERFECT ripeness WHICH IS ENJOYED on the inside...

...NOW AVAILABLE all year round

Quality
Growers, packers and marketers.

Commitment
On-time delivery, traceability and consistency.

The season will start:
Whenever you need it!

Peruvian avocado:
From April to September
Chilean avocado:
From September to March

Fresh - Canned - Frozen:
Grapes Avocados Blueberries Asparagus Peppers Artichokes Pomegranates Mandarins Mangoes

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Mango — Arrivals

December 2013

The European mango market distinctly deteriorated in December under the combined effect of rising supply and moderate demand. In a tough economic context, the rate for Brazilian Tommy Atkins held up throughout the month, given the limited proportion of this variety in shipments from the source (20 to 25%). In addition, the median size of this variety and its generally more intense coloration represented an alternative for the supermarket sector purchasers. However, the rate of Kents and Keitts from Brazil fell from November. The influx and build-up of volumes on the market, in the face of a still hesitant demand, led to the formation of substantial stocks, reinforced by the early growth of shipments from Peru. The variable quality of Brazilian fruits intensified the lack of sales fluidity. Furthermore, the predominance of small sizes in the first Peruvian shipments proved unsuited to demand. The dip in incoming shipments from Brazil at the end of the month was compensated for by the Peruvian supply, which caused an overall excess supply to the market, favouring an erosion of sale prices.

The air-freight mango market proved particularly difficult in the first half-month, with shipments from Brazil and Peru growing, while demand remained stable. The receipt of well-matured batches from Brazil contributed to swelling the market and led to sales from 2.50–3.00 euros/kg. In the second half of the month, the market conditions improved given the fall in incoming shipments and the livelier demand. In this relieving phase, rates strengthened slightly.

The social differences can be read not only in the types of products consumed. In fact, they also relate to the degree of processing of the products purchased. Whereas processed products (frozen, tinned, ready meals, bagged salads, etc.) were originally the preserve of the higher categories, an INRA study based on the 2007 purchase data from the consumption panel Worldpanel shows that this has no longer been the case for some years. This can be explained by the relative fall in price of industrial products, which have made them accessible to all sections of the population. Currently the proportion of processed products in the vegetables basket is higher in the most modest households. The proportion of fresh products may be considered as a marker of social position.

Hence the study also reveals points about vegetarianism, obesity, organic products and other food products. In conjunction with these findings, according to a British study conducted in more than ten countries, which appeared in the British Medical Journal, researchers found that a healthy diet entailed an overall additional cost of 1.48 USD per day and 1.54 USD per 2 000 kcal portion (i.e. approximately 1.10 euro per day), which explains why families with a lower food budget are consuming less and less fruits and vegetables, especially fresh.

For more information:


*A healthy diet incurs an additional cost of 1.1 euro per day,” article on the CEP “Outlook and Evaluation” site dated 16 December 2013, Noémie Schaller

Mango — Import Price on the French Market — Euro

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>49</td>
<td>50</td>
<td>51</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air-freight (kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil Kent</td>
<td>3.50-4.20</td>
<td>3.00-4.00</td>
<td>3.00-4.00</td>
<td>3.00-4.00</td>
<td>3.10-4.05</td>
<td>3.50-3.95</td>
</tr>
<tr>
<td>Peru Kent</td>
<td>4.00-4.50</td>
<td>3.50-4.50</td>
<td>3.50-4.50</td>
<td>3.50-4.50</td>
<td>3.60-4.35</td>
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</tr>
<tr>
<td>Sea-freight (box)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Brazil T. Atkins</td>
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<td>4.00-4.50</td>
<td>4.00-4.50</td>
<td>4.00-4.50</td>
<td>5.35-6.00</td>
<td>5.35-6.00</td>
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<tr>
<td>Brazil Keitt</td>
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<td>4.00-4.75</td>
<td>3.50-4.75</td>
<td>3.50-4.75</td>
<td>3.75-4.80</td>
<td>5.60-6.50</td>
</tr>
<tr>
<td>Brazil Kent</td>
<td>4.00-5.00</td>
<td>4.00-5.00</td>
<td>3.50-5.00</td>
<td>3.50-5.00</td>
<td>3.75-5.00</td>
<td>5.60-6.60</td>
</tr>
<tr>
<td>Peru Kent</td>
<td>-</td>
<td>-</td>
<td>3.50-4.75</td>
<td>3.50-5.00</td>
<td>3.50-4.85</td>
<td>6.50-7.15</td>
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</tbody>
</table>

Mango — Arrivals (estimates) — Tonnnes

<table>
<thead>
<tr>
<th>Weeks 2013</th>
<th>49</th>
<th>50</th>
<th>51</th>
<th>52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air-freight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>80</td>
<td>100</td>
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<td>30</td>
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<tr>
<td>Peru</td>
<td>60</td>
<td>80</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Sea-freight</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>3 320</td>
<td>3 960</td>
<td>4 490</td>
<td>2 660</td>
</tr>
<tr>
<td>Peru</td>
<td>750</td>
<td>1 360</td>
<td>1 850</td>
<td>1 670</td>
</tr>
</tbody>
</table>

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Litchi

December 2013

The first week of December represented the hinge between the air-freight season and sea-freight season. This period always proves complicated since it relies on the volumes received by air being marketable before the arrival of the first sea-freight litchis. The rate for treated air-freight litchis strengthened slightly in week 49 because of a considerable fall in supply levels. However, the last batches from Mauritius, still available at the beginning of week 50, were sold on a falling market to prevent confrontation with the first sea-freight batches, the delivery costs of which were distinctly lower. The Reunion air-freight season proceeded with volumes expanding in the run-up to the Christmas holidays. Sales of these products accelerated during the holiday period, enabling rates to pick up significantly. The lowest prices in the ranges set out below correspond to untrussed fruits. The highest prices were charged for trussed fruits.

The cargo of the first ship out of Madagascar, received in Zeebrugge on 10 December, went to market under good conditions. The strong pull of demand, especially from the European supermarket sector, enabled rapid distribution of most of the quantities available. The good overall quality of Madagascan fruits buoyed this burst of interest, supported by numerous in-store promotions. The second conventional ship from Madagascar scheduled for this season arrived on 16 December, thus supplementing the supply for the period between Christmas and New Year’s Day, until the arrival of the litchis shipped in sea containers in the first ten days of January. The rates for Madagascan litchis shifted as they went onto the market, in order to keep the distributors interested and encourage promotions attractive for consumers. Sale prices were slightly above those charged the previous year, especially to take into account the re-evaluation of the product delivery costs.

Meanwhile, South Africa supplied limited quantities. These better sized litchis achieved slightly higher prices, in spite of their often less attractive coloration. They were mainly aimed at wholesale markets to supply traditional trade.

Easing of entry conditions for the Peruvian Hass to Chile. After some long negotiations, the Chilean Minister for Agriculture has finally authorised the entry of the Peruvian Hass produced in certain zones of the country, without any phytosanitary restrictions. The fruits must come from the provinces of Arequipa, Ica, La Libertad, Moquegua and Tacna, and have a minimum oil content of 21.5%. This decision was made against the advice of the Comité de Palta, the representative body of the Chilean avocado industry, which fears the introduction of the Sunbloch virus present in the neighbouring country, but has enabled the immediate reopening of Peru’s borders to the Chilean apple... This is big news, including for European operators, since this is a major new outlet opening up for Peru. Chile, which consumes approximately 6 kg/capita/year of avocado, could import nearly 20 000 t from Peru from this year, according to certain professional sources, to supply a counter-season market practically non-existent at present.

Mango from Côte d’Ivoire EU-27 — Imports in 2012 and 2013

<table>
<thead>
<tr>
<th>Weeks</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tonnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>1 189</td>
<td>701</td>
</tr>
<tr>
<td>May</td>
<td>11 440</td>
<td>10 258</td>
</tr>
<tr>
<td>June</td>
<td>2 570</td>
<td>4 252</td>
</tr>
<tr>
<td>July</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>15 221</td>
<td>15 491</td>
</tr>
</tbody>
</table>

Source: rpp.com.pe

You may recall the observations that accompanied the 2013 Ivorian mango season in Europe. Besides the late start of exports, the volumes available always seemed insufficient, in view of lively demand bolstered by prices well above 5.50 euros/box until mid-June. Mangoes, it was said, were scarce, and the production was not as big as initially declared. The perspective afforded since the end of the season and by the release of the European statistics call such thinking into question. Ultimately, the tonnages exported by Côte d’Ivoire were identical to 2012, a record year for the source. This statistical hiatus serves to show the difficulty of inputting reliable information in real time. It also teaches us that Côte d’Ivoire remains more than ever an essential mango supplier for the European market. The comparison of monthly imports nonetheless clearly reveals a marketing shift in 2013, to later than in 2012, with the seasonal peak in May, smaller tonnages in April and a longer extension into June.

Source: Pierre Gerbaud

Litchi — Import Price on the French Market — Euro/kg

<table>
<thead>
<tr>
<th>Weeks</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tonnes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air-freight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Madagascar</td>
<td>s</td>
<td>4.50-5.20</td>
</tr>
<tr>
<td>Mauritius</td>
<td>v</td>
<td>5.00-6.00</td>
</tr>
<tr>
<td>Mauritius</td>
<td>s</td>
<td>4.00-5.00</td>
</tr>
<tr>
<td>Réunion</td>
<td>v</td>
<td>4.50-6.50</td>
</tr>
<tr>
<td>South Africa</td>
<td></td>
<td>3.50-4.00</td>
</tr>
<tr>
<td>Sea-freight</td>
<td></td>
<td>3.50-4.00</td>
</tr>
<tr>
<td>Madagascar</td>
<td>s</td>
<td>2.60-2.80</td>
</tr>
<tr>
<td>South Africa</td>
<td></td>
<td>3.00-3.65</td>
</tr>
</tbody>
</table>

v: fresh on the vine or not sulphur treated / s: sulphur treated

Source: Eurostat

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During Q4 2013, the root vegetables and tubers market remained fairly level, without any periods of steep price variation, even at the end of the year when traditionally demand sees a temporary surge. Only eddoes, the supply of which proved more restricted, saw their price rise. The other notable modifications over the period in question were due to changes in supply sources, as with West Indian peppers and sweet potatoes.

**Sweet potato (SP)**

The supply of red-skinned white-fleshed SPs altered during this period, with the export seasons ending in South Africa and Honduras in late October, with a stable price basis. The supply of this product was taken over by sources in the Mediterranean (Egypt and Portugal). Egyptian SPs were sold at regular and stable rates, around 0.80 euro/kg with some minor pricing variations, especially at the end of the year when certain sales were made at up to 1.00 euro/kg. The improvement in quality and packing, previously observed, continued over the period in question, with commercial brands standing out more than in the past. Produce from Portugal, delivered in smaller quantities, was valued at 1.20 to 1.30 euro/kg until late October. Its rates then took a downturn to between 1.00 and 1.20 euro/kg.

Red-skinned orange-fleshed SPs were primarily supplied by Israel, backed up by shipments from the United States from late November. Average prices held up, with the exception of a temporary fall in late November-early December. We should note the re-evaluation of orange-fleshed SPs in Q4 2013, back to a higher price level than white-fleshed SPs, after the pricing reversal which had marked the beginning of 2013.

The much rarer white-skinned white-fleshed SPs made up only a few shipments from the United States, with stable prices of 1.50 euro/kg.

**Yam**

The supply was practically exclusively provided by Ghana over the period in question, with white yams in the large majority. Puna variety imports proved limited in October. Mid-November saw the beginning of the French production season, with products sold at 2.50 to 2.60 euros/kg. Stronger in late November, the average rate for French yams dipped in December, with a reduction of 0.20 to 0.30 euro/kg, partially recouped in the second half of December.

**Cassava**

Costa Rica remained the sole cassava supplier during Q4 2013. Sale prices remained stable, varying by just 0.05 to 0.10 euro/kg depending on the incoming shipments and commercial brands.

**Eddoe**

The scarcity of the Costa Rican eddoe supply helped keep rates above 2.00 euros/kg for the whole period. Unlike in previous seasons when its shipment shortfall was compensated for by other sources such as China and Brazil, Costa Rica remained the only market supplier, which caused a price increase to as much as 2.50 to 2.60 euros/kg at times. However, certain small-size batches, less in demand, were negotiated on a basis of 1.40 to 1.50 euro/kg.
Other exotics
Q4 2013

Plantain banana
The market was primarily supplied by Colombia, with prices fluctuating from 0.85 to 1.00 euro/kg, in a context of regular supply but moderate demand. The spring crisis was only slowly eliminated, with prices struggling to recover a higher level. It was hard to break the purchaser’s habit of having access to a cheap product. The rate for Ecuadorian fruits maintained lower but stable levels.

Chayote and christophine
The price for chayotes and christophines from Costa Rica, the main supplier to the European market, remained stable and regular. French production proceeded with its season, gaining in value until mid-November, with rates tending to align with those of Costa Rica thereafter.

Dasheen
With a fairly stable rate of 2.20 to 2.30 euros/kg, dasheens from Saint Vincent sold regularly. Rates remained strong overall given the scarcity of the supply. Martinique also supplied dasheens by air, sold at a higher price (3.80 to 3.90 euros/kg) given the higher delivery costs.

Chilli Pepper
Until early November, most of the chilli pepper supply was based on a European supply, with French produce supplemented by Portuguese produce, and to a lesser extent Dutch produce. Rates for French chilli peppers were fairly fluctuating, depending on the shipment quality and size. Portuguese produce was sold on a downward market from late October, because of a more substantial overall supply. The Dominican Republic restarted its shipments from late November, when the European sources dried up. The livelier demand at the end of the year benefited this source, with prices rising until the second half of December. Some batches from Martinique and Guadeloupe rounded off the supply, with prices distinctly higher for Guadeloupe, which was delivering products of regular quality.

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Direct from the markets

Sea freight

December 2013

The December Time Charter Equivalent average capped a good year for owners and operators of specialized reefer tonnage and the strongest 12 months in a generation for the smaller segment. Unless there are significant changes to the structure of demand for capacity, the supply of competitive reefer equipment or a large rise in the cost of bunker fuel, there is every reason to believe that the performance of the sector in 2014 will be even stronger.

Historically December can be a difficult month for both the large and small segment: demand for bananas diminishes as consumers focus on other exotic fruits such as pineapples, mangoes and litchis for the festive period while the first Southern Hemisphere grapes and stone fruits become available. However two factors mitigated the impact: a reduction in the size of the reefer fleet coupled with the switch to more of a liner mentality, which has enabled the reefer to compete more effectively with the container lines, meant that there was little spare capacity. What there was, was absorbed quickly and rates remained stable.

Any fears of a shortfall in early Chilean grapes caused by the vicious September frosts were quickly doused, as the volumes from the north of the country that supply the early fruit were less affected than the Metropolitan region, where crop damage was extensive. The Chile to US grape trade is heavily dependent on specialized reefers – demand for the mode underpins the February to April charter market seasonal peak.

There was good news for operators elsewhere: Seatrade’s Everest Bay fixed Cape Town to the UK and N Cont for a fifth table grape cargo after the completion of the NYKCool 4-vessel contract with a group of major shippers who were all concerned not to repeat the scenario of the year before, when weather badly hampered loading operations in the city’s container port. As a consequence approximately 25 000 pallets of fruit reverted to the specialized reefer from third-party liner services this season. Despite generally hostile weather conditions in the South African port the reefers succeeded loading, while the lines struggled to cope with the wind prevalent at the time of year. Toward the end of 2013 the specialized reefer had a 38% share of a reduced export volume of grapes from South Africa, up from a minimal share in 2012 when only one vessel loaded.

In the small segment demand from fish charterers, the bread-and-butter of the 200-280 cbft units, would usually take a 2-week break over Christmas as trawlers return to port for the holidays. While there was indeed a dip in demand for fish, this was mostly offset by scheduled potato and Moroccan citrus positions. Any minor downward correction in rates was only temporary as fish charterers moved to take advantage of the re-opening of the Nigerian market in January.

Del Monte opens its first ripening centre in France. Since January 2012, Del Monte France has distributed its fruits directly in France. Since 2 January 2014, Del Monte France has also been able to distribute its bananas at the yellow stage, thanks to its brand new ripening centre. The facility, located in the Eurodelta zone and covering 3 000 m², has a total ripening capacity of 27 000 tonnes of bananas per year, and a storage capacity of 500 pallets of other tropical fruits and Southern Hemisphere fruits. This unit will also be operated for the production and distribution of prepared fresh fruits.

Source: Del Monte

FruiTrop in full on its new website
fruitrop.com

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

MONTHLY SPOT AVERAGE

<table>
<thead>
<tr>
<th></th>
<th>Large reefers</th>
<th>Small reefers</th>
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</thead>
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<tr>
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<td>December 2013</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>December 2012</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>December 2011</td>
<td>19</td>
</tr>
</tbody>
</table>

US Cents / Cubft x 30 days

Weeks / Source: Reefer Trends

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27 gates for unloading containers
33 gates for loading lorries

Quay: 37 m wide, 450 m long and water depth 12 m
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A container park with 140 power sockets

Lorries: internal parking facilities for waiting vehicles
and A9 motorway at 9 km
Trains: 40 km of tracks and a transfer gantry crane
Barges: canal use as far as Dijon

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You can never be sure of the worst, except on the grapefruit market. That is what many of the professionals trading in this product in Europe must be thinking after the first part of this 2013-14 season, so disastrous has it been. Volumes sold are registering a major and generalised decline, with moreover prices having been at just about their worst for all sources. How has this situation come about? FruiTrop offers you this review, and sets out some of the prospects for the second part of the season.
January 2014
No. 218

Record South African exports to Europe

It is the scale of the volumes delivered during the summer season that explains the very tough start to the winter season: a time bomb of which the South African industry was both the innocent creator and the first victim. Exports from the leading player on the world counter-season grapefruit market, which have fluctuated between 12 and 14 million 15-kg boxes for all destinations since 2007, neared the 18-million boxes mark in 2013: a historic record never previously achieved, even during the 2005 season. Despite a real diversification in outlets, especially to Russia and China, the scale of the volumes shipped to Europe has heavily impaired economic returns, both upstream and downstream. In addition, the European season has been extended since significant stocks were still available at the beginning of October. As a knock-on effect, Mexican fruits, which normally provide the supply during the transition period between the summer season and winter season, could only find a place on the market late and with difficulty, at a time when grapefruits from winter sources normally take over. The extraordinary rains that hit Mexico in September, which weakened the durability of a large proportion of the supply, in no way helped matters...

**Grapefruit — European Union**

**Balance at the end of November for winter sources**

<table>
<thead>
<tr>
<th>2013-14 EU arrivals</th>
<th>2013-14 average price</th>
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</thead>
<tbody>
<tr>
<td>comparison</td>
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</tr>
<tr>
<td>2012-13</td>
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<td></td>
<td>17-kg eq.</td>
</tr>
<tr>
<td></td>
<td>2012-13</td>
</tr>
<tr>
<td></td>
<td>4-year average</td>
</tr>
<tr>
<td>Florida</td>
<td>- 30 %</td>
</tr>
<tr>
<td>Israel</td>
<td>- 18 %</td>
</tr>
<tr>
<td>Turkey</td>
<td>- 8 %</td>
</tr>
<tr>
<td>Spain</td>
<td>- 27 %</td>
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</table>

**Professional sources, FDOC, CIRAD**

**Mediterranean grapefruit - France**

**Grapefruit — European Union — Counter-season imports**

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<th>2011</th>
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<td>127 653</td>
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<td>24 171</td>
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<td>9 129</td>
<td>8 276</td>
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*figures up to end of October / Source: Eurostat
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Mediterranean sources feeling the full force

The period from late September to mid-November, after which the grapefruit takes a back seat on the shelves, is often favourable for Mediterranean producers. It generally represents an opportunity to “build up a reserve for harder times”, selling off 35 to 40 % of the season’s volumes for a source such as Israel, often at fairly lucrative prices in September and October. Yet faced with the competitive context as intense as it is unusual described above, and the underlying problem of low consumption, the “reserve” has proven really meagre this season. Israel’s volumes sold over this period were 20 % below average and last season. It has also been really rotten in terms of the price levels stopping well short of compensating for the fall in volumes: the average rate calculated by our Market News Service for Mediterranean sources is 15 to 20 % down from the average, with prices plummeting to below cost level since the beginning of the season.

A distinct decline for Florida too, though only in volumes

The fall in volumes sold by Florida during this same period from October to November was just as great. Nonetheless, this decline can be explained not solely by the market difficulties. The volumes available at the production stage at the beginning of the season were limited. On the one hand, the internal maturity and size range lagged well behind. These problems are due not only to the weather conditions, but also to the effects on the trees of stress caused by greening, as several scientific works have shown. On the other hand, there were high sorting rejects particularly because of appearance flaws due to melanosis being more abundant than in previous years. Hence despite the asset represented in this context by the bottom-end “third brand”, introduced in the last few years by most operators, volumes sold had registered a fall of approximately 30 % at the end of November, if we can rely on the incoming shipment data. Nonetheless, there has been no shortage of customers, although lines have opened up more gradually in the supermarket sector than in previous years, for lack of volumes. Hence the average price established in late November exhibited a very similar level to last season.
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Florida set for a calmer second part of the season

What about the second part of the season? Although such forecasts are very hard to put together, a few trends are emerging. The future outlook for Florida seems rather positive. Operators are starting the year with greater peace of mind than in 2013, with their stocks very small thanks to a decline in sales in December less marked than in previous years, and to imports remaining in shortfall until late December. Furthermore, upstream availabilities have returned to a nominal level, ensuring a good supply over the coming months. The historic cold spell, which is still affecting the northern United States at the time of going to press, has not so far had any impact. Finally, the sugar/acid ratio is back to a higher level than last season. However, despite the export delay, the season should not be extended further. The production forecast, which in its first draft was already relying on the lowest harvest level ever seen, has been revised downward again. Furthermore, the size range is still distinctly ailing and sorting rejects are just as high. Hence the latest significant shipments onto the Community market should arrive between late March and mid-April, depending on the operators, i.e. on a schedule similar to or slightly earlier than last season.

Could the situation of the Japanese market alter this scenario? It is fairly unlikely. Although this market remains the leading outlet for Floridian exporters, its level of return has fallen greatly and is no longer so different from Europe (see graph). Stricken by the economic crisis, Japanese importers are less focused on very high-end products than previously, both in terms of size and level of qualitative selection. The decline in shipments to this destination, which has been more pronounced than to Europe in recent years, is a tangible sign of the decreasing fondness of Floridian exporters for this market.

The burden of the delay for Mediterranean sources

The second part of the season for Mediterranean sources seems more swollen than in 2013. All the exporter countries are experiencing a significant delay in marketing, while the harvests are at a more or less equivalent level to
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Corsican grapefruit: a little waif... which has found its way!

Though among the smallest Mediterranean suppliers, Corsica has nonetheless managed to find its place on the French grapefruit market, thanks to a distinctive approach combining the quest for the best taste qualities within the Isle of Beauty and eco-friendliness. The season only starts in late March, when the fruits start to reach their full organoleptic potential. Furthermore, they are not treated after harvesting. Their distinctive organoleptic characteristics are shortly expected to be recognised by a PGI (protected geographic indication), probably for the 2015 season.

The volumes expected in 2014 are set to be slightly smaller than last season (exportable potential of approximately 3 000 t). The size range should be mainly medium to large (with sizes 36, 40 and 45 predominating). The first fruits should be available in late March.

last season. This is the case in Spain and Israel, where December’s weather problems have not affected the fruits, since they are inside the tree and therefore shielded by the surface leaves. As for Turkey, the harvest is particularly large. The return to a better sales dynamic which seems to start to be taking shape should enable a return to a more favourable context for medium to large fruits. However, the situation really could remain difficult for small fruits (sizes 50 and 55), more abundant than last year in the Spanish harvest, and excessive in the Turkish harvest.

There is still a major unknown which will determine the scenario for the entire end of the season: the changes to European sanitary regulations, which since October 2013 have prohibited imports of citruses from South Africa because its black spot controls were deemed insufficient. While reopening is hardly in doubt, what will the conditions be? A hardening of the inspection measures or a ban on certain production zones would primarily hit the grapefruit, mainly from the tropical climate zones in the north of the country, where the disease is present. The European authorities are due to rule after the EFSA has submitted its report, expected at the end of January at the latest.
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The illusion would have been perfect if October had not gone and rained on the parade. However, nothing in how the European banana market has gone in 2013 can provide any grounds for optimism for the foreseeable future. For its part, the United States is continuing down its chosen path, with a Fort Knox style set-up. The only common point between these two big world markets is increasing consumption. And that is not such a bad thing with things the way they are for the banana industry...
European banana market in 2013

The banana bubble!

There are rumblings of a storm, but 2013 has been a powerful anticyclone for the European market. Helped out by the lack of competition, the banana for a time became the main attraction on the shelves. But beware, reality could bite back all the harder!
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Almost perfect!

2013 was an almost perfect year for the banana! Just five short weeks in autumn were all that was missing to round off a year, which apparently without that mishap would have gone into the record book. We will take a longer look at the performances in terms of consumption in the traditional April edition of FruiTrop, once all the quantitative data are available and have been processed. However, you can bet that 2013 has been an exceptional year. As at the end of October, the estimated European consumption was up 4% over ten months and 3% over the last twelve months (November 2012 to October 2013). The end of the year saw the phenomenon intensify further. And just this once, 2013 was also exceptional in terms of green banana price. For France, the green banana price (source: CIRAD) amounted to 0.69 euro/kg, i.e. 12.5 euros/box, the second best performance for eight years, just short of 2012, another year out of the ordinary. So we observed a slight fall in green banana price (-2% in France and -4% on our EU barometer), but the comparison with 2012 is misleading since this was a record year. Compared to 2011, we can regard the levels obtained in 2013 as satisfactory: +7%, both for the French green banana price and for the European price.

These two successive years have not necessarily followed the same pattern. The season profiles differ in particular on two points: the very good durability of rates during summer 2013, a very high risk period, which was not the case in 2012, and a disastrous autumn 2013, whereas in 2012, after the miserable summer came a strong recovery which lasted until the end of the year. This favourable trend was confirmed over the first nine months of 2013. So we have had two different behaviours with two very close annual averages: 0.69 euro/kg in 2013 and 0.71 euro/kg in 2012.
La banane durable est un combat. Pratiquer une agriculture responsable, répondant aux plus hautes exigences sanitaires, environnementales et sociales, constitue un véritable enjeu face à une concurrence internationale toujours plus rude. C'est le défi que relèvent depuis 10 ans les 700 producteurs indépendants, unis au sein de l'UCPBAN.

Ensemble, continuons le combat !

The convergence of the annual prices was accompanied by very low volatility in rates over these two years. From 1.49 euro/box in 2012, the volatility (in this case represented by the standard deviation calculated for the French green banana weekly price series) fell to 1.14 euro/box in 2013. This is moreover the lowest deviation ever recorded in France. Rounded to the annual average price, the variation observed was just 9%, as opposed to 12% in 2012 and 22% in 2011. It would be hard to find a better market, with a stable, relatively satisfactory green banana price and high consumption: some kind of year of wonders for the banana! So we have found the magic elixir, and a vaccination against nightmares is within reach. All this, moreover, in a hostile regulatory environment (elimination of restrictions and scheduled reduction in customs duty) and on a European market increasingly open to international competition.

This is of course the optimistic version of the analysis. Since the devil is in the details, let’s look closer at the success, and separate what is down to the structural context from what is dependent on the short-term context. So be prepared for disappointment.

Fewer apples is a good thing, but fewer Goldens is even better!

As you will have realised, the conclusions are more than nuanced. We might even consider that 2013 highlights the great difficulties of the sector. Since while we have to celebrate the good banana year, it is actually only down to a combination of one-off, or even miraculous, short-term effects. First and foremost we need to look outside of the banana sector to find the truth.

First let’s stay within the fruits sector, since it has made the biggest contribution to things going well. The apple sector, and, more secondarily, the pear sector, had a heavy impact on the market. The French Ministry of Agriculture’s business outlook bulletin (“Agreste Conjoncture”), issued in March 2013, could not be clearer: “2012 production is reportedly 25% down on the past five years, which is the smallest French harvest observed for ten years.” We can also read from the price evolution that “since the beginning of the season [September 2012], rates are much higher than the 2007-2011 average rates: between +20% and +51%, depending on the month.” Although France saw the biggest slowdown in production volume in 2012 (-32%) because of major weather damage, the situation deteriorated greatly in other EU countries, with European production falling 9%, and by as much as -24% for Spain for instance. Eastern Europe bucked the trend, with its production jumping by 11% from 2011.
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What we also need to bear in mind from the 2012 European apple season is the steep fall (-12%) in Golden Delicious production, which represents the biggest of the European players with 23% of the supply, and which is still a staple on the shelves. This is a significant detail, since the banana is also a staple of the staples on the shelves. Consequently, when Goldens is less abundant, it is a highly competitive segment for the banana, which weakens. Citruses are also a very big competitor for the banana, especially in periods supposedly the most auspicious for our fruit: autumn and winter. Eric Imbert, economist and head of the citrus sector within the CIRAD Market News Service, provided in the November edition of FruiTrop his analysis of the 2012-13 citrus season: “Thanks to these moderate volumes and a demand taking advantage of the scarcity of the European apple supply, most exporter countries in the zone [Mediterranean] had been able to re-establish a satisfactory profitability level.” Fewer apples, fewer citruses, all that remained was to clear the hurdle of summer 2013. Once again, the skies came to the aid of the banana producers. According to Agreste, the combination of a reduced supply (of peaches and nectarines) caused by the vagaries of spring weather and consumption boosted by the often high summer temperatures (July) led to an increase in rates, both in France and the EU.

Other less decisive factors

Other factors have also affected the competitiveness and attractiveness of the banana on the European market. Hence the euro/dollar exchange rate throughout 2013 remained within a range of between 1.28 and 1.40 USD to the euro, with the euro tending to strengthen at the end of the period. It is hard to draw conclusions about the optimum exchange rate level. However, for the market balance, we can nonetheless be glad that the euro did not generate any additional competitiveness margins for dollar production sources, unlike in 2011 and the three preceding years.

The growth of costs to their highest levels in 2013 (provisional CIRAD index 130, as opposed to 128 in 2012 and 127 in 2011) also hindered exporters less inclined to take risks on a spot market which is all about taking a gamble, with its high fixed costs. The guarantee of a high return level on all markets, very strong fruit demand at certain times of year and a relaxation in bunker prices and freight rate, however, mitigated this risk taking in 2013. So it is hard to draw conclusions as to the influence of the cost index on the supply level to a market which for a good part of the year remained highly dynamic.
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Now for the climate, which is said to have a big effect on the dynamics of the banana market. If we refer to the Météo France analyses, which observes that the temperatures were below normal in the first half-year, with a very cold May, we might think that this supported consumption, already lively for the reasons mentioned above, and conversely, that the cold temperatures and generally short sunshine duration held back spring and summer fruit harvests and their consumption. Météo France emphasised that July and October were particularly warm, doubtless a factor aggravating the supply crisis that France and Europe went through in October (see below).

Apples and pears made way, and stone fruits and citruses were out of the picture; temperatures were rather favourable for banana consumption; no excesses on delivery costs or costs in general; supply barely affected by the euro/dollar exchange rate. In short, the banana industry was enjoying an idyll, along the lines of “Cast Away”!

We could leave the explanations there, and make the indisputable observation that autumn 2012–summer 2013 was a waking dream...

Down to earth!

Except that the real world, where nothing lasts forever, and where conditions are constantly shifting, gave us a most fearsome and striking reminder: the five-week period from 41 to 45, i.e. between the second week of October and the first week of November 2013. The import prices in France all of a sudden came apart, falling below 0.60 euro/kg, a level never breached since the disastrous summer of 2012. We had to wait until week 46 for the machinery to get back into gear, to finish the year on a positive trend. The sky fell in on our heads, just like in the Asterix and Obelix comics, the latest edition of which came out during this crisis, in a wink to destiny.

While the findings are clear, the explanation is more difficult. Here too, we need to explore a combination of factors. The first is due to the intensity of the supply to the French market from Africa. While Côte d’Ivoire has regularly increased its volumes from a low point in early 2012, partly thanks to the gradual return to normal in terms of politics and reinvestment in planting, it is the behaviour of Cameroon which has attracted all the criticism. Whereas the source had been on the slide since the beginning of the year, its exports to France and Europe suddenly exploded in October 2013, from 8 000 to 16 000 tonnes from one month to the next for France, and from 17 000 to 24 000 tonnes for the EU-27. Whatever the sector, it is clearly tough to handle such a peak under good commercial conditions.
* Martinica, Ivory Coast, Colombia, Ecuador, & Cameroon.

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The return to a more measured supply level in November helped, among other things, to restore calm on the French market, but also on the European market. Indeed, the latter had once again been given a rough ride by the malfunctions of the French market. But the Cameroonian volumes do not of course explain everything. Other sources also increased their volumes in this period, such as Colombia with its traditional export peak to the EU, which quite precisely in October reached a total of more than 10 million boxes, before dropping back to 7 million the following month. This was also the case for the Dominican Republic, which recovered its best levels (31 000 tonnes in October) and Ecuador, which increased its exports to the EU by 18 % from one month to the next.

And then there was the interminable and languishing end to the summer fruits season, hindering the European market for weeks. Then come other more diffuse explanations, due primarily to the market atmosphere. Hence in a sort of collective hallucination, where the positive market trend has a powerful anaesthetic effect, we had all forgotten that the apple and pear season more or less comes back on the same date, that apple festivals flourish in the supermarkets, dislodging the banana and other products from prime shelf spots. Furthermore, we can count ourselves lucky to have had a relatively average 2013-14 harvest, true well up (+ 11 %) on the disastrous year 2012, yet still around average for the past five years (+ 2 %). Furthermore, since the harvest was late, the massive promotions in the hypermarkets and supermarkets were also later, practically starting at the end of November. And what about the other heavyweight of the market, citruses, and more particularly at this time of year, small citruses? Nothing doing! The season ranged from late to very late, with hot temperatures which held back the degreening process. The Mediterranean supply did not really grow until November, i.e. the month following the disruption.

After these notorious five weeks, the market recovered the annual trend, and ended 2013 on an overall positive note. The import turnover (supply level before re-exports multiplied by green banana price) for the French market alone confirmed this trend, since from January to October, i.e. taking into account the highly depressed month of October, it went up by 36 million euros from the same period of 2012, to reach practically the half-billion euro mark.
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Left to fend for itself

What are the big lessons that we can take from this year, once more atypical? The most important which, admittedly, is not really revolutionary, is the extreme sensitivity of the market to the supply of competing products. The banana market remains trapped, and dependent on external factors. This is not very reassuring for its future. Since as has been clear since 2012, it has not proven profitable due to the actions taken by the sector itself (industry structuring, sales coordination, targeted promotions, etc.), but because more or less serious weather vagaries stepped in to save Private Banana.

The second lesson, just as tragically blatant and mundane, is that the market is very sensitive to a banana over- or under-supply. Indeed, twice in 2013, one time in one direction with a reduction of the Martinique supply due to cyclone Chantal in early 2013, and the other time when the supply exploded in October, we saw the market react abruptly and sometimes even to exaggerated degrees.

In summary, while we can celebrate a relatively quiet year for the banana, which saw its rate rise throughout practically the whole year, in no way should it lead us to believe that the balance has finally been achieved. Indeed, the good economic conditions of 2012 and 2013 have only very little to do with the actual workings of the market, and still less with its fundamentals. To think otherwise would be the gravest of illusions. The banana supply is unregulated, and demand depends on the supply of competing products (inside and outside the fruits and vegetables sector). The international supply is subject to the evolution of euro/dollar exchange rates and the cost price (especially the energy price). The absorption capacity of the US market (fortunately good), but also that of the Russian market (highly volatile), are the pillars of the world market. But the situation is fragile. The political decisions which have a big impact on the relative competitiveness between suppliers, and about which the operators cannot really do anything, are also an unmanageable risk factor. The reduction in the customs fees for Latin American sources has actually been largely ratified, and scheduled for the medium term. Then we have the factor on which everyone agrees: the weather vagaries, the frequency and intensity of which savagely and dramatically regulate the global balances.

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More generally, and to avoid piling illusion on illusion, we also need to know whether the balance, even if artificial as at present, generates
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added value, or at least helps prop up a structurally sickly sector. At the beginning of last year, we had shown that 2012 had enabled added value to regain the lost ground, to some extent eliminating the slow decline caused by inflation. Unfortunately, given the considerable fall in the green banana price and inflation, though moderate at 0.8%, we can consider that value crumbled in 2013. In other words, the banana is not following the overall increase of French as a whole (inflation rate). The value (in constant euros) of the product reached in 2013 the level that it had in... 2006. Some progress! This is one of the most relevant indicators for demonstrating the extreme commoditisation of this product. And it is better not to make the same calculation taking the consumption price index for the fruits sector alone. The scissor effect between constant price and going price is at its greatest in that case. In 2013, the constant value of the banana was 7% below its 2006 level.

The good news is that the banana is relatively less expensive than other fruits. But what sense does that make? Since in this little game, the banana has long since knocked out the competition, without housewives rushing out to buy any more. That is where the pinch is felt. So the solution is not to destroy value to gain market share.

The analysis made possible by the precious economic data collated by the RNM (market news network), especially at the shipment stage (for French fruits), could reassure banana operators. Indeed, if in the kingdom of the blind the one-eyed man is king, then the banana does no worse than the other fruits, but there are two major remarks: its price evolution is impressively stable in current euros, and it is ranked among the low added-value fruits such as the Golden apple or orange.

2014 set to be a long year

So now is the time to make the projections for 2014. This is obviously a tough exercise after what we have just been saying. The fact remains that certain fundamentals are now practically definite. On the one side, we know for example that the production capacities in Central and South America are intact, having avoided serious weather damage. We also know that Martinique will return to full production in the first half of 2014. Although its weight on the European market is relatively light, it is fundamental on the French market. Furthermore, Africa is conducting a development policy, either by improving its current capacities, or by expanding surface areas, the real effects of which, it is true, will only be visible in a
few years’ time (see FruiTrop 216, November 2013, p. 12). In the short term, the weather conditions in Africa have been rather favourable for banana production in the past few months. Finally, euro/dollar parity will remain, whatever happens, favourable to exporters to the EU, and we could even see the euro rise against the dollar, due to the end of the accommodating monetary policy in the United States.

On the flip side, with the global economic recovery, though listless, we could see some tensions on the raw materials market, especially for the price of energy, which has a very heavy impact on the cost of a box of bananas. Thus the big exporters could be forced to closely monitor their production returns. Yet one of the great unknowns remains the relative presence or relative absence of competing spring and summer products: strawberry, apricot, peach and nectarine. We will just have to hope, as the old French saying goes that: “if it snows on Saint Onesimus day (16 February) then the harvest will be ruined.”

More seriously, how can we be optimistic about 2014? The operators questioned can find nothing to reassure them, since while the banana market is atypically high (which is really characteristic), they are too afraid of what everyone has been promising them since the opening of the European market in 2006: the cataclysm. There is what many believe is a structural factor for the European and world markets: development of contractualisation or, at least, of setting a guideline price (such as Aldi applies) over a relatively long period (a quarter). It is hard to get a clear opinion about the question. The near-generalised contractualisation in the United Kingdom, going as far as to bring together all the links of the industry, raises questions as to producer returns. Certain Colombian cooperatives, fair trade certified at that, do not seem particularly satisfied with the system. The “Aldi” process has its advocates and detractors. Since the Aldi price level is fixed rather at the bottom of the range (this is the case for the first quarter of 2014), certain observers hope that this will help remove the worst and most modest operators, and leave the field free for the others. Banking on their doubtless better adaptability and resistance, the biggest suppliers to the German discount supermarket are advocating a more extensive market structuring to their own advantage: reducing the number of players. Others believe that setting an import price three months in advance is a tall order on a market extremely sensitive to all kinds of vagaries. And furthermore, that the system is more rigid and closed to price increase processes. In short, that it is carved up by and for the distribution sector rather than for the upstream operator.

In every case in 2014, exporters who have opted for a fixed contractualised sale price for a season will apply caution and good stewardship of their company. In case of a disaster on the market, they will need to monitor the damage reports, the traditional route for the fruits and vegetables sector to escape the contract conditions.

The banana bubble of recent years has led many operators to explore new frontiers in production, and believe that the balances had been achieved. At the risk of banging on, we should recall that the increase in banana consumption seen in 2012 and 2013 in Europe is indeed real, but that the battle was won unopposed.
The European distribution sector played its expected part this year. While the green banana price was slightly down practically right across Europe, retail prices changed for the better. From being a free rider (like Germany in 2012), in 2013 the European distribution sector upgraded to VIP status.
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For more than plants.
While 2013 was a normal year for the banana in terms of green prices, it was particularly prosperous for the distribution sector. Indeed, as we had pointed out in 2012, the German distribution sector was taking a free ride. It had followed and even greatly intensified the inflationist drive of the green price by fiddling with the labels, readjusting the margins and compensating for (as it was officially put) the continual increase in energy and labour prices. In 2013, we have the same again.

German retail prices went up 0.73 euro/box in the traditional distribution sector, and 1.45 euro/box among discount stores. For the latter, this was the same increase as in 2012. In the space of two years, the price per box has gained 3 euros, i.e. rocketing up 15%. For the banana sector we should not have any concerns about a flat inflation rate, a sign of an economy in difficulty. In this case, it is rather overheating. Although consumers do not reckon on the price per box but per kilo, and a rise from 1.04 to 1.20 euro/kg does not fundamentally change their perception of the product, whereas other fruits (such as the apple) have undergone increases at least as steep. Indeed, the German Statistics Office notes that for the apple the price index went up 15% in 2013 from 2012, and 20% from 2011. The trend is the same for citruses, which have rocketed up 15% since 2011, and 9% between 2012 and 2013. The fruits and vegetables section is doing better than the food prices index, which slid down 4% over one year, and 8% over two years.

### Banana — Europe — Import and retail prices

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Spain

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Germany

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France

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Italy

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<tr>
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Czech Republic (CZK/box)

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Reference EU barometer (CIRAD)

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<td>Import price</td>
<td>13.7</td>
<td>13.2</td>
<td>-0.56</td>
<td>-4%</td>
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Sources: TWMC, RNM, CIRAD

### Banana - Retail price

**Difference between 2013 and 2012 (euro/box)**

- Spain - Canaries bananas: +0.36
- Spain - Other sources: +0.18
- UK* - Loose bananas: 0.00
- UK* - Prepacked bananas: -4.35
- Italy: -1.63
- France - Special offer: +1.27
- France: +0.54
- Germany - Discount stores: +1.45
- Germany - Traditional retail distribution: +0.73

*£/box

Sources: TWMC, RNM, CIRAD, National Authorities
Global Gap / Rainforest Alliance

BANANAS AND TROPICAL FRUITS FROM IVORY COAST

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spdcie@aviso.ci / spdciebatia@aviso.ci
In terms of turnover, there is a tidy additional sum for German distributors. With a gain of approximately 900,000 tonnes per year for consumption, and approximately 2.5 euros per box in two years (average between traditional distribution and discount stores), more than 40 million euros have swelled the coffers of the retailers. If the right trend is confirmed on the consumption side, they will have a full house, with a falling (green) purchase price, a rising (retail) sale price and growing volumes. How do you top that?

But we should not be fooled. Unlike in 2012, it is the European supermarket sector as a whole which has taken advantage of the fall in green banana rates to increase its prices. In sometimes excessive proportions, as in Spain, which for its Canaries banana, exceeded the 2 euros/kg annual average mark, i.e. a gain of 4.35 euros/box! In this case the supermarket sector has only passed on, in proportion (+ 12%), the increase in the green price (benchmark Super Extra). Furthermore, this is the only green price in Europe which has increased. Once again, Spain is bucking the trend for the whole European market, and doing little more than compensating for its awful 2012, which had seen the Canaries green price fall by 17%.

The French distribution sector also applied an increase. The price per kilo of bananas gained 2 to 5%, depending on the categories, whereas the green banana price fell by 2%. The trend is the same for the Czech Republic which increased its consumption prices by 2%. Conversely, the British and Italian distribution sectors seem to have been aiming for symmetry: when the green price stagnates or falls, the retail price stagnates or falls. Hence for Italy, we might think that competition, exacerbated by the arrival of a big new operator on this market, drove the green banana price a little further downward.
France under the microscope

Now let’s analyse more precisely the behaviour of the French market, for which we have a vast battery of indicators. 2013 is not very different from previous years. There are major principles rooted in the habits and customs of the sector. For example, the retail price is more resilient than the green (import) price or the wholesale price (from the ripening centre). According to our calculations, we can even say that the retail price is twice as stable as the green price. The latter varies on average by +/- 9 to 11 % (2012 and 2013 figures), whereas the retail price only varies by +/- 5 to 6 %. The wholesale price also varies less than the green price, but more than the retail price: by around +/- 6 to 8 %. It is an intermediate commercial and industrial link, which, in some way, dampens the effects of the fluctuations on the world market.

In a highly turbulent period (weeks 41 to 45, see previous article), whereas the green price detached by more than 15 % from the annual average, the retail price fell by 5 to 6 % on average. Another characteristic is the absolute disconnection between retail price and the green and wholesale prices over the summer period. In 2013, we even get a mirror effect. When the green price falls, the retail price rises. Furthermore, although they are concurrent, the two series have no relation between them, since it is the “low season” effect which comes into play for the banana. Big margins are set on products that do not attract regular customers, in the knowledge that if there are sales, the price will not really make a difference.

So now we come to the first part of the year, the first two (rarely three) two-month periods. At this time of year, there is a bigger convergence between the green price and retail price. The latter exceeds its annual average in lower proportions than for the green price. In the first two months of 2013 for example, the green price was 13 % above the annual average, whereas the retail price was just 2 % above its annual average value. This is now a period of very high banana demand from consumers, and the price is a big lever for retailers to attract as many buyers as possible, who of course will not just buy bananas! All of these fundamentals could also be found in 2012, with a few particularities. For example, whereas the green price stagnated at the end of 2012 (5 % below its average), the retail price rocketed by more than 5 %. Finally, the price gaps varied by 0.8 to 1.0 euro/kilo between the retail stage and green stage, by 0.5 to 0.8 euro/kg between the retail stage and wholesale stage, and by 0.2 to 0.4 euro/kg between the wholesale stage and green stage.

Denis Loeillet, CIRAD
denis.loeillet@cirad.fr
United States: let the party go on!

The US banana world is no longer what it once was! Doubtless it would be a great exaggeration to draw that conclusion based solely on the stumble of 2013. Yet on a market which has kept beating records in terms of spot prices five times in a row, the slightest hitch is manna from heaven for the analyst bored with such a well-oiled market. We have to recognise the obvious fact that the spot import price fell in 2013. We should be aware that it is not yet a catastrophe. We are talking about a fall of 4 %, i.e. the exact percentage of the drop in the European price (CIRAD barometer). We should remember that the spot price is still up by more 5 euros/box from 2007. This is such a big increase (nearly 50 %) that there is no point checking whether inflation ended up wiping it out. We should note we are talking about the spot price (source: Sopisco) rather than the actual contracts. Yet we can bet that it gives a good idea of the general evolution of the import price. This observation is all the more important with the high contractualisation of the American market.

As with the EU, the 2013 season seems as an annual average to have been very similar to 2012. As with the EU, it is only an illusion since while the average is comparable, the price evolution week by week was very different. In 2012, we climbed to peaks throughout the first quarter. This was not at all the case in 2013. Indeed, the weekly variability of the spot price was reduced to its simplest expression: barely 0.20 USD/box for the US average price series, as opposed to 1.4 USD/box in 2012. Furthermore, this is the lowest standard deviation ever recorded in the United States. This does not mean that there is no difference between the three main regions: Gulf, East Coast and West Coast. The Gulf is still holding its own, whereas the West Coast is often used as the low benchmark, with the exception of the last quarter of 2013.

The surprises end there. In 2013, the retail price stuck to precisely the same levels as in 2012, at 1.32 USD/kg. One of the characteristics in common with the supply in Europe is its positioning at the retail stage: the banana is a staple product, or even more so than in Europe. The apple (benchmark Red Delicious) or orange (benchmark Navel) are twice as expensive as the banana: 2.5 USD/kg for the orange, 3.07 for the apple and just 1.32 USD for the banana.

The retail price to import price ratio remained practically identical, going from 1.45 to 1.50. The same can be said for the price gap between these two stages amounting to 0.44 USD/kg, as opposed to barely less in 2012, 0.41 USD/kg. Although a full FruiTrop report will be dedicated to consumption in April 2014, we can already say that it is on the rise. Over the first ten months of the year, it went up by 4.5 % from 2012 and 12 % from 2010. This is continuous progression.
The Russian alternation effect

The Russian Far East did not take anyone by surprise in 2013. Always the same tune, always the same orchestra and always the same finale. The operators unload enormous quantities of bananas, the market becomes strained and then explodes. Volumes to the market are then slashed. The market recovers, and then the cycle can begin anew. The only pleasant surprise this year was the absence of a serious crisis in the summer, but as if taking a run-up for a bigger leap, a crisis just as intense as ever appeared in September and October.

Ultimately, the average price nonetheless seriously came apart in 2013, losing 12% of its value to 12.9 USD/CIF St Petersburg. We can rightly say that the very high became less high and the very low less low. This equates to a standard deviation of 2.14 USD/box, which might seem striking enough, but which is still very reasonable by Russian standards. We should recall that this gap had risen to nearly 4 USD in 2008 (a record), and indeed 3.4 USD in 2012.
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The best sanitary guarantees of the market
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Fax: +33 (0)4 67 55 23 05
vitropic@vitropic.fr

ZAE des Avants
34270 Saint Mathieu de Tréviers

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FRANCE
www.vitropic.fr
### France

**Banana - France - Monthly retail price**

<table>
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<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
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<td>1.58</td>
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<td>2012</td>
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Sources: RNM, Cirad-Fruitrop

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**Banana - France - Annual retail price**

<table>
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<th>2013</th>
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<tr>
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<td>1.41</td>
<td>1.61</td>
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<td>1.61</td>
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Sources: RNM, Cirad-Fruitrop

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**Banana - France - Special offer retail price**

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Sources: RNM, Cirad-Fruitrop

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**Banana - France - Estimated import price**

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Source: CIRAD-Fruitrop

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**Banana - France - Annual import price**

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<tr>
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<td>0.67</td>
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Source: CIRAD-Fruitrop

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### United Kingdom

**Loose banana - UK - Monthly retail price**

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<td>0.73</td>
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Source: TWMC

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**Loose banana - UK - Annual retail price**

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**Prepacked banana - UK - Monthly retail price**

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Source: TWMC

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**Prepacked banana - UK - Annual retail price**

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<td>1.07</td>
<td>1.21</td>
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Source: TWMC
OUR attitude WILL change THEIR future

Wawa Wasi “Rayito de Sol” (Day care center)

A place where the children of our employees receive care from trained professionals who provide them with love and positive stimulation during their early years.

Thanks to a strategic alliance with the Ministry of Development and Social Inclusion of Peru.
After its rise and diversification with the whole seedless range, world table grape production seems to be stabilising, both because of slower demand from traditional destinations (Europe, United States) and growth of production costs, especially in the Southern Hemisphere. Hence exporters are increasingly targeting local markets and emerging countries where demand is still expanding. This sometimes results in tensions on the European market, which still accounts for 55% of worldwide purchases, and represents one third of volumes exported by the main Southern Hemisphere countries.
World table grape market

In an adjustment phase?

The world table grape market, very buoyant just a few years ago, does not seem to have kept all its promises, in spite of the varietal revolution underway with seedless grapes. However, these varieties have enabled its market shares to hold up in traditional destinations such as Northern Europe. However, emerging markets, such as China, have more demand for varieties such as Red Globe, which is forcing traders into handling a diversified range in order to retain a broad customer portfolio; that is what it takes in an economic crisis.
What are the social consequences of changes enacted in the value chains, especially when they involve large international agricultural product industries? How can we anticipate the results of changes in technical procedures, supplier, work organisation, distribution of revenue generated, etc.?

Researchers from French research centres (Cirad, Inra, Irstea, SupAgro, and University of Montpellier I) and consultants (Epsil'Hôm, CEP) set out over 100 pages their methodology and practices for assessing socio-economic effects.
More rational production

In recent years the table grape was still one of the few fruits of which many were expecting significant development. Hence a host of research bodies worldwide have worked and are still working on new varieties to enrich the range, develop and adapt the white, pink or black seedless varieties. Deseasonalisation and growing demand from emerging countries actually encouraged predictions of considerable growth in purchases, both in traditional destinations (Europe, United States) and in Asia or even South America.

However, while world table grape production grew considerably until the mid-2000s, the curve changed direction from 2005, and is now rising practically exclusively in line with Chinese production. The supply is continuing to develop in this country to feed the local market (7.2 million tonnes), which is growing by approximately 10 % every year. Volumes also grew a bit more in several Southern Hemisphere countries in recent years (South Africa, Peru, Argentina), in order to satisfy the requirements of emerging countries, or even of certain countries from the Mediterranean Basin, such as Morocco (+ 5 to + 10 % in recent years). Yet surface areas have rather stabilised in most of the production zones, including in Chile or India. The potential is even falling in certain zones, especially in Europe (1.7 million tonnes in 2012 for the EU-27, as opposed to 2.4 million tonnes in 2005).

Still some opportunities in emerging countries

So the fall in demand on the traditional markets and the growth of production in the emerging markets have held back shipments, in spite of the efforts made in production to adapt the varietal range to the requirements of demand. So world exports are stagnating at around 3.8 to 3.9 million tonnes, i.e. 16 % of the production potential. Europe is still the main destination, absorbing 55 % of shipments, yet with a big share (900 000 t) traded within the EC. However, trade volumes are stagnating, whether within the Community or from third countries (570 000 t). Similarly, after rising considerably until 2008, demand...
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slumped on the Russian market where imports have now been fluctuating for three years at around 400 000 t. Nor is the North American market an exception to the rule, though it was already close to maturity before the economic crisis. However, flows are still increasing to Asia (+ 69 % in 5 years) and even to South America (+ 88 % in 5 years) with the entry into force of numerous association agreements. There has also been considerable growth in Africa (+ 76 % in 5 years), though small trade volumes are involved.

South-East Asia in the cross-hairs

So most growth from recent years is attributable to South-East Asian countries, and especially to China (Taiwan, Hong Kong and other provinces), which in total absorbs 280 000 t, primarily from the United States and Southern Hemisphere countries. Volumes are mainly aimed at the provinces in the south and east of the country, since the more northern zones are supplied primarily by local production at more attractive prices. The Red Globe variety dominates the supply. Seedless varieties (Scarlet Royal, Crimson and Thompson Seedless), although growing, are still niches. Imports have also grown in recent years to other South-East Asian countries, especially to Thailand (58 000 t, + 139 % in 5 years), Vietnam (46 000 t in 2011, + 146 % in 5 years), South Korea (45 200 t, + 63 %), Malaysia (27 400 t, + 17 %) and Indonesia (55 800 t, + 104 %). To compensate for the stagnation of the traditional markets, exporters have also in recent years targeted countries in the Middle East, especially Saudi Arabia (32 000 t) and the United Arab Emirates (27 000 t), though demand remains fairly fixed. However, the supply is regularly extending to the countries of the Mediterranean Basin, such as Morocco (800 t), Algeria (4 000 t), Libya (2 200 t) or Egypt (1 600 t), though the tonnages are still fairly restricted compared to the other big markets. Hence South American exporters are now refocusing on nearby markets such as Mercosur, where demand is on the rise. Brazil, for example, imports no less than 34 000 t of grapes, primarily from Argentina and Chile. Flows have also been established to Central American countries (Colombia, Ecuador or Mexico).
A necessarily diversified customer portfolio

So in this context, it is important for exporters to maintain a wide range of customers. Chile is still by far the world’s leading table grape exporter, with a potential of 800 000 to 812 000 t primarily aimed at Northern Hemisphere countries, especially the US market (350 000 to 400 000 t) and Europe (160 000 to 170 000 t to the EU-27 and 30 000 t to Russia). However, in recent years, its shipments to the South-East Asian markets have grown, reaching between 70 000 and 95 000 t.

Similarly, Europe is still a major outlet for South African grapes (170 000 t to the EU-27 and 10 000 t to Russia), but exports are growing to South-East Asian countries (30 000 to 33 000 t) and the Middle East (12 000 t).

Peru has also rapidly developed its exports with a diversified portfolio: 40 000 t to the EU-27, 31 000 t to China, 27 000 t to the United States and 17 000 t to Russia. In addition, it is going to step up its presence in Asia (China, Hong Kong, Taiwan and South Korea) and Colombia, as well as eleven new destinations opened up in 2012, such as Brazil, Norway, Canada and Venezuela.

Similarly, the United States is not easing up, and is planning to target 25 countries in its marketing campaign. Most of the volumes are for the moment shipped to Canada, Central America, China (Hong Kong) and Indonesia.

However, European production is mainly dedicated to the European market, since the varieties produced, whether Italia, Aledo or Muscat, are for the most part consumed locally. Nonetheless, the supply of seedless grapes has expanded (Crimson Seedless, Sugraone, Flame, etc.), especially in Spain, and to a lesser degree in Italy, though it remains earmarked for Northern European markets, also with the objective of extending the production calendar. Similarly, the Red Globe supply has strengthened in Italy, though it is primarily earmarked for the European market.

Extra-Community exports represent approximately 13 % of the total, and are primarily focused on neighbouring countries (48 000 t to Russia, 27 000 t to Switzerland and 12 000 t to Norway), or on the Mediterranean Basin countries (2 000 t to Algeria, Libya or Saudi Arabia).

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Counter-season table grape

Balance yet to be found

The last few counter-season grape seasons seem to confirm the difficulty in matching supply and demand on the European market. The economic crisis actually boosted competition at the beginning of the season (October to December), in spite of a diversified range (seedless), which stands out from local produce. Conversely, the supply then became fairly fluctuating, or at times strained in mid-season, depending on the evolution of production and world demand.
A 2012-13 season of great contrasts in Europe

The 2012-13 season is a fairly good illustration of the fluctuations of recent seasons, especially since it was marked by weather and economic conditions which both put back the harvest and reduced the exportable potential of several countries. However the production potential started off at a good level for the main Southern Hemisphere countries, reaching a total of 2.56 million tonnes, i.e. + 3 % from the previous season. Yet the season was late. In South Africa, the first volumes from the Transvaal and then Namibia were shipped from weeks 44 and 45, though the season only really started in week 50 with the very first shipments from Orange River. Similarly, the season began late in Chile. The first containers were sent to the United States and Asia only in week 50. The European market was sluggish, though with some good volumes in Italy and Spain.

So the season kicked off under unfavourable conditions, after the end-of-year holidays, and proved highly chaotic in many Southern Hemisphere countries at the beginning of the year. Indeed, heavy rains struck South Africa, causing the loss of at least 5 million boxes, especially in Orange River, and the earthquake at Copiapo in Chile stopped production in many stations in this zone. Yet activity was also greatly disrupted by strikes both in Argentina, where they have been recurrent in recent years, and in South Africa, and were settled by wage increases of 25 % and 10 % respectively.

So rates remained very strong on the export markets, including Europe, enabling Peru to end its season in very good shape. February and then March were relatively light, especially in Europe, with the first batches from Chile not appearing until week 9. So the rates reached high levels (2.00 euros/kg, import stage), which held up until week 14, especially as the Chilean exporters also had to face the dockers’ strike at the port of San Antonio. The Thompson Seedless rates even reached 2.60 euros/kg at the import stage in week 13, with growth of shipments from India, rates of which always also achieved records (2.20 euros/kg, import stage), not compensating for the shortage of Chilean grapes and the end of the South African season.
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Results varying between sources at the beginning of the season

Although, as is confirmed every year, European market penetration is difficult in October, the early-season sources were nonetheless able to maintain their market shares in 2012-13 due to the delay from other Southern Hemisphere countries (South Africa and Chile). Hence European imports from Brazil held up at around 37 000 t, in spite of a very slow beginning to the season, while shipments from Peru rose again by 5 % (40 000 t).

Argentina suffered another downturn (just 11 700 t, i.e. - 14 % on 2011-12) due to recurrent internal difficulties (strikes). This source is losing its footing every year on the international market, although surface areas are stable, or even slightly on the rise in certain zones such as Mendoza (8 500 ha). However, producers have invested in recent years in modern varieties such as Flame Seedless (3 000 ha). Yet the increase in production costs (labour, packaging, transport, etc.) and the export difficulties, whether to Europe or Brazil, which normally absorbs 30 % of quantities, have led to volumes earmarked for export being transferred to industry.

Similarly, production is struggling to hold up in Brazil (625 000 t in 2012-13, as opposed to 761 000 t in 2008-09), with exports highly dependent on the European market (38 000 t out of the total 52 000 t exported). Increasing volumes are therefore transferred year on year onto the internal market, where demand is regularly expanding.

Only Peru, whose customer portfolio is increasingly diversified, is really holding its own, with indeed a record export level for last season (153 900 t, + 16 % on 2011-12). It should further consolidate itself in the coming years, whereas it was exporting no more than 11 000 t in 2002-03. Indeed surface areas are continuing to grow at a tempo of 5 to 10 % per year (reconversion of asparagus plantations), already reaching 16 500 ha in 2011 for a long-term potential of at least 20 000 ha. Production is now in excess of 300 000 t, i.e. approximately twice as much as ten years ago!

A favourable trade-off for emerging countries during the season

Tensions are increasingly high in mid-season given international demand and the uncertainties at the production stage, which have frozen planting in recent years. Hence for several years now, growth of surface areas has halted in Chile, and while the Thompson Seedless variety still represents most of the volumes along with Flame Seedless, the supply has expanded more significantly in Sugraone, Crimson Seedless and Red Globe for the Asian markets. Hence shipments from Chile to Europe fell last year (138 000 t, 14 % on 2011-12), whereas its overall exports held up at around 850 000 t.
South African exports to the European market maintained the same level at around 168 000 t (-1 %), whereas export volumes fell overall (235 000 t, -5 %), though we should be aware that the export level registered in the previous season had been particularly high. However, production growth also slowed down in this country in the face of the uncertainties (strikes, currency parity). Hence in spite of the government policy of Black Economic Empowerment to stimulate production by black farmers, their number fell by 5 %, and there were no more than 361 in 2012. However, surface areas are stable, even expanding further in 2012-13 (16 000 ha), and production should hold up and maybe increase in the coming years, especially since most of the vines (60 %) are between 4 and 15 years old. Indeed, the stock has been transformed in recent years, with a considerable fall in seeded varieties in favour of seedless, which now represent more than 70 % of planted area. Hence, Crimson Seedless (13 %), Thompson (11 %) and Prime Seedless (11 %), but also Sugraone (10 %) and Flame Seedless (9 %), dominate the supply. Certain seeded varieties such as Red Globe are also being planted (10 %) to satisfy Asian demand.

Another strained season in 2013-14?

The 2013-14 season could be fairly comparable to the previous one, with already a difficult beginning to the season, but a market which is set to somewhat ease thereafter. Indeed it has begun under fairly similar conditions: a European market light in seedless varieties and an early end to the season in Turkey and Greece. Yet demand has switched toward counter-season sources fairly slowly, given the still substantial supply of seeded grapes from Italy and Spain at distinctly more attractive price levels (0.80-1.50 euro/kg, shipment stage) and much slower demand in the context of economic stagnation.

So Brazil has really struggled to penetrate the market, and its exports could end up declining again, although the delay or shortfall from other Southern Hemisphere sources has helped clear the stocks built up at the beginning of the season. Argentinian production has been very discreet at the beginning of this season, especially since September’s heavy frosts considerably reduced the production potential (75 000 t, -47 % on 2012-13), and the latest wage negotiations at the end of 2013 ended in another rise in the cost of labour, of around 25 %. Hence the maximum export potential was estimated at 20 000 t, i.e. another fall of at least 13 %. However, Peru should see its exports rise further, with an estimated production potential of at least 305 000 t (+2 %) for an export potential of 170 000 to 180 000 t, given the expansion of this source to numerous destinations.

The market was still sluggish at the beginning of the year due to the persistence of the European sources, but could subsequently right itself because of a slightly lighter supply. Indeed the volumes from South Africa were still limited at the beginning of the year, because of the delays in particular in Orange River, where the weather conditions affected the first harvests. So production could fall by approximately 3 % from 2012-13, and the export potential go down by approximately 5 %. Similarly, Chilean production this year could be further reduced due to the cold spell in September, when temperatures fell in places to -4 to -5°C, the coldest period since 1929. At the end of 2013, forecasts were counting on a reduction of 12 % (1.09 million tonnes). The association ASOEX announced a fall of 13 to 16 % in exports, i.e. a potential of approximately 730 000 t. Furthermore, the season is a bit late. The very first volumes were shipped to the United States in week 50.  

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Information... your weak link?

Reefer Trends is an independent news and information provider, financed exclusively by revenue from subscriptions.

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In the world rankings, South Africa is the number 14 table grape producing country, and number 4 of the six main producing countries in the Southern Hemisphere, with a potential of 300 000 tonnes. A large share of production is earmarked for export (80 to 90 %), primarily to the European market (just under 70 % of shipments). Nonetheless, this source has suffered heavily in recent seasons from South American competition, an unfavourable exchange rate and the economic crisis which has slowed down consumption. So it has been refocusing for several years on new outlets, with the support of SATI (South African Table Grape Industry).
Table grape in S. Africa

Location

South African table grape production aimed at the fresh market covers more than 16 000 ha spread over the whole of the country, in highly diversified production zones, enabling the producers to supply the international market between November and May. The season starts in November with the early varieties. The production zone in the north of the country (North Province) enjoys a mild subtropical climate, favouring early maturity of the grapes. It exports nearly 10 % of the South African total. The vineyards prospering in the desert soils of the Orange River enjoy sunny winters and hot dry summers. This zone exports 16 to 17 million boxes (nearly 30 % of the total South African shipments).

The mountains of the Berg River valley (23 % of exports) offer the mild Mediterranean climate of the Cape, to produce mid-season grapes. The Hex River valley production zone in the south of the country also produces mid-season grapes and late varieties, supplying 33 % of South Africa’s export volumes (18 million boxes) on its own.

Production

South African table grape production grew gradually until the early 2000s. Deregulation and deseasonalisation then generated very rapid growth in potential, though this quickly ran out of steam (255 000 to 265 000 t in the early 2000s). The modernisation of the cultivation stock, with the planting of seedless varieties, boosted this industry, by adapting the supply to demand from the emerging markets, although the economic crisis that has stricken Europe, hitherto the main destination for South African grapes, has slowed down its growth.

Outlets

Local consumption is underdeveloped (0.55 kg/year/capita) and is not really promoted, with grapes often of lower quality than those intended for export. Hence sales on the local market do not exceed 25 000 to 26 000 tonnes. Most volumes are aimed at the export markets (80 % of production).
Table grape in S. Africa

Production calendar and varieties

The diversity of the production zones gives this source a wide varietal range spread over a long period. The South African season actually starts with the Prime Seedless variety in November/December and extends until May with the Dauphine variety, by way of a highly diversified varietal range (Sugraone, Thompson Seedless, Red Globe, Den Ben Hannah, Lavallée, La Rochelle, Bonheur, Barlinka, etc.). The conversion to seedless varieties (currently more than 70 % of surface areas) has gathered pace in recent years, especially in Orange River. The white varieties are still dominating the mix (45 % of surface areas, 37 % of which are seedless), though the supply has primarily expanded in red varieties in recent years, especially for Crimson Seedless, the leading (13 %), and Red Globe (10 %).

Exports

South African shipments have struggled to expand over the past decade, in spite of the liberal context of deregulation of the early 2000s. Indeed, South Africa saw tough competition from the South American sources and was handicapped by an unfavourable exchange rate, and then by the economic crisis which has struck Europe, its main outlet. Hence shipments to the European market fell 15 % between 2006 (188 000 t) and 2011 (160 000 t). Overall exports have maintained 235 000 to 245 000 t in recent years, thanks to the development of the customer portfolio, in particular targeting Russia (10 200 t last season, as opposed to 2 500 t in 2006), Hong Kong (19 500 t, as opposed to 4 700 t) and the Middle East (12 000 t, as opposed to 7 155 t).

Logistics

Durban is the main South African port via which produce from the north of the country passes. Volumes also go through the southern ports, especially Cape Town.
Cultivation of table grapes

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Plant
The grapevine is a climbing plant, some varieties of which bear juicy edible berries. It will hold naturally to any type of support (tree, wall, wire, etc.). It has been grown for 4000 to 5000 years in many countries with temperate, Mediterranean or even tropical climates.

Origin
The cultivated grapevine belongs to the genus *Vitis*, that probably originated in Pangea and more precisely in Laurasia, a continental area corresponding to Europe, North America and Asia, excluding India (Branas, 1974). In those distant days, there were already species adapted to different climates—from the coldest to the hottest. This specialisation is still seen today, well after the differentiation of the continents during the Tertiary era.

Grapes are eaten fresh, dried or processed to make wine or other alcoholic drinks. The most commonly used varieties are derived from the species *Vitis vinifera*, which originated in Europe, while rootstocks suited to biotic and abiotic conditions tend to be American vines (*Vitis riparia*, *rupestris*, *berlandieri*, etc.).

Climate required
The ideal areas for growing grapevines have climates ranging from temperate to Mediterranean. They thus have a marked winter that is not too cold, a sunny summer that favours ripening and rainfall occurring mainly in winter.

This being so, vines are grown in both hemispheres with the limits imposed by too low a temperature that can freeze the vines in winter and prevent satisfactory ripening in summer. Conversely, climates without a winter raise other physiological problems such as defects in bud burst or juice composition that is unfavourable for fruit quality. However, this problem is less serious for table grapes than for wine grapes as wine making requires a good balance between sugar, acids, tannin, etc. to produce quality wines. The use of certain cultural practices such as pruning twice a year has made it possible to extend table grape production to tropical climates with satisfactory results.

In addition to temperature, rainfall is clearly very important in the suitability of a region for grape production. Water requirements are not very large, being some 600 to 700 mm per year in a Mediterranean climate. Shortage of water can sometimes be compensated by irrigation, but excessive precipitation that enhances the development of fungal diseases and is unfavourable for ripening is more difficult to manage.

Soil
Roots may be more than 6 metres long but usually measure less than 3 metres. Occupation of the soil depends on the physical and chemical characteristics of the latter. Root growth depends on soil depth, type (clay, limestone, etc.) and the proportions of fine soil and pebbles. Soil temperature strongly affects the rate of root growth; this increases from 10° to 30°C but is nil outside these limits. Insufficient soil moisture can cause problems (vine apoplexy, dryness), as can excessive moisture (asphyxia). The presence of lime often results in high quality fruits but too much ‘active’ lime hinders the use of many rootstocks.

Soil is rarely a limiting factor. Poor soil enhances quality and rich, deep soil is more favourable for quantity. In fact, the grapevine is a fairly tolerant plant, growing on both alkaline soils (limestone soils with a pH of up to 8.5) and acidic soils (to pH 5.5). However, very acidic soils with a pH of less than 4 can cause boron and magnesium deficiency. The soil must be limed in this case.
The growth cycle

The growth cycle of the grapevine has several stages shown below (diagram by Branas), D = bud burst, F = flowering, T = stopping of shoot growth, V = ripeness, Ch = leaf drop.

Depending on the zone, this cycle can run for a full year or just for six months. In this case, the plant is managed with a succession of ‘active lives’ separated by only three weeks between pruning and bud burst. Under these conditions, the plant obviously ages more quickly and vines must be replanted more frequently than in a temperate climate.

Setting problems

Bunches may contain several types of berry. Small green berries are non-pollinated ovaries that remain as they are until the harvest. Parthenocarpic berries are truly seedless, having formed and ripened after pollination not followed by fertilisation. Grapes displaying stenocarpy contain soft, aborted seeds. Finally, seeded grapes contain at least one seed resulting from pollination followed by fertilisation.

The seedless feature is permanent in Zante grapes (Corinth grapes) and accidental in other varieties. This then causes millerandage, or ‘hen and chickens’, a defect that strongly affects the value of table grapes and even prevents them from being grown as in the case of ‘Dattier’ in France.

Parthenocarpy can become an asset when it is a varietal feature as the bunches consist entirely of seedless grapes. This character is increasingly sought-after, examples being ‘Sultanine’, ‘Perlette’, ‘Dattier de Beyrouth’, ‘Delhro’, etc.

Pruning

Unpruned vines remain as lianas, form bushes or creep across the ground. As soon as the tendrils become entwined around any kind of support, the plant climbs and spreads its leaves in the sun to absorb as much energy as possible. In this case, there may be a lot of small, acid grapes that are not very sweet and the vines gain exaggerated length year after year.

Vines are pruned for the following reasons:

- managing the number of fruitful buds and hence the future harvest;
- controlling the spatial distribution of future shoots to enhance photosynthesis;
- adapting to the cultural techniques planned, such as mechanisation, weeding, etc.;
- preparing for subsequent pruning operations and ensure the future of the vineyard.

There are a great number of pruning systems and it is impossible to describe them all in detail. Most are either in the short or long pruning category.

Short pruning consists of leaving a number of renewal spurs with two eyes on one or more arms. This is done in bush pruning and in Royat cordon pruning. The system is suitable for varieties with fertile lower eyes such as ‘Alphonse Lavallée’, ‘Cardinal’, ‘Muscat de Hambourg’, ‘Datal’, ‘Chasselas’, etc.

The principle of long pruning is based on the need to keep mid-position eyes on a cane to ensure a satisfactory crop on varieties whose lower eyes bear little or no fruit. One or two long bearing units (with 6 to 8 eyes) bear the crop while one or two renewal spurs (with two eyes) will provide the rod and the renewal spur for the next pruning operation. Single Guyot is the most common of these pruning systems, with double Guyot reserved for very vigorous vines and rarely suitable for high-quality harvests. Long pruning is necessary for varieties such as ‘Danlas’, ‘Italia’, ‘Perlette’, ‘Dattier de Beyrouth’, ‘Delhro’, etc.
Tying

The imagination of vine growers seems unlimited as vines can be seen growing freestanding—bush pruned or simply spreading across stony ground—or, in the other extreme, growing on very complicated trellising systems such as those in South Africa that resemble factory roofs, by way of bamboo pergolas. In fact, the decision to use a particular method is often governed by the behaviour of the grape variety in its environment and by the materials available.

Vine management

Bud removal is performed a few days after bud burst and water shoots are removed a month later after growth of about 15 cm. Both of these operations are aimed at removing shoots considered as useless for the formation of the pruning system, shoots that are too weak or are sterile. They allow stronger growth of the remaining canes, reduce the risk of disease and result in fewer pruning wounds. Care is also taken to remove any shoots that grow from the rootstock. The shoots are topped, making the passage of machines easier (especially sprayers), improving berry setting and reducing the risk of damage by wind. Apart from the production aspect of these operations, a trellised, well-topped vineyard is an attractive sight. Deleafing can be performed at the bases of the shoots to give the bunches better exposure to sunlight and reduce the risk of grey rot (*Botrytis cinerea*).

Fertilisation

As for many perennial crops, distinction is made between two practices—basal dressing and annual maintenance dressing. Basal dressing and amendments are placed before planting to correct any weak points revealed by soil analyses. Soil reserves are improved at the same time, enhancing growth of the young plants. Annual maintenance dressing theoretically makes it possible to compensate for the exporting of various elements, that is to say plant consumption to produce wood, leaves and grapes. It is considered that the equivalent of 70 kg nitrogen and 90 kg potassium should be returned to the soil to compensate for the production of 10 tonnes of grapes.

Irrigation

While the watering of wine grapes is forbidden in France, it is used and is even essential in some hot zones where table grapes are grown. It is impossible to determine the water requirements of a vineyard schematically as they depend strongly on soil characteristics, climate and, of course, the rootstock and the grape variety. A modern method consists of continuous monitoring of soil moisture using tensiometers set at different depths and then irrigation when the readings show that the soil is beginning to dry. This both saves water and dispenses the right amount for the satisfactory growth of the plants. Irrigation techniques are varied and depend on both cultural and economic factors. The only rule to be respected is that of avoiding the use of sprinkler irrigation as this wets the foliage and enhances the spread of fungal diseases. It is therefore natural to use microsprinkling or trickle irrigation. The latter technique also requires the least water.

Protection against fruit-eating birds

Grapes are targeted by birds in some production areas, especially from veraison onwards (when the berries
The growth cycle and the main cultural techniques

change colour). Damage may be limited to pecking or the whole bunch may be eaten. The harvest is destroyed in both cases. The vineyard must therefore be protected either by a bird-scaring system or, in some severe cases, by full netting.

Harvesting

The first harvest is three years after planting in temperate areas but this can be reduced to half in the tropics where twice-yearly pruning is used. In contrast with wine grapes, the harvest is carried out entirely by hand. The bunch stem is cut with a pruning knife or secateurs and fruits are then placed in trays in shallow layers to prevent bruising. The bunches may be trimmed to remove deformed or damaged berries to attain optimal visual quality.

Rootstocks and grafting

Before phylloxera appeared in 1868, vines were propagated by cuttings or by layering. It has since become essential to graft on to resistant American rootstocks. The rootstock is chosen according to its suitability to the soil (resistance to lime and tolerance of drought or moisture), its resistance to biological pests (phylloxera and nematodes), compatibility with the grape variety and the ability to give scions the vigour matching the yield level sought.

The following are among the most widely used rootstocks:

- SO4 and 5BB (V. riparia x V. berlandieri), resistant to active lime and very productive;
- 3309C (V. riparia x V. rupestris), sensitive to drought, calcifugous;
- 41B (‘Chasselas’ x V. berlandieri), very resistant to chlorosis but not perfectly resistant to phylloxera;
- Fercal (V. berlandieri x ‘Colombard No. 1’) x 333 EM, currently the most resistant to lime.

There are many grafting methods but they can be classified in the three following categories:

- cleft grafting and derivatives used for field or bench grafting;
- shield budding used for green budding (in central Europe);
- the whip and tongue graft and the Omega graft are the techniques most commonly used in bench grafting.

Once the graft has been performed (now using machines), it is covered with wax and stratified in moist peat in wooden callusing boxes for 15 to 20 days under warm conditions in the dark. This allows the formation of a callus at the graft before planting in the nursery.
Main varieties of table grapes

Crimson Seedless

**Origin:** ‘Emperor’ × ‘C33-199’
**Description:** late red variety
**Behaviour:**
- Vigour: strong
**Harvest characteristics:**
- Average bunch weight: 500 g
- Colour: fairly pale red, shiny
- Medium-sized cylindrical to oval berries with crisp pulp, seedless
**Phytotechnical aspects:**
- Medium-sized fairly compact bunches
- Very good taste quality
- Very susceptible to mildew and Botrytis
- Berry bursting: fairly strong
- Good keeping qualities

Red Globe

**Origin:** (‘Hunisa’ × ‘Emperor’) × (‘Hunisa’ × ‘Emperor’ × ‘Nocera’)
**Description:** late red variety, seeded
**Behaviour:**
- Vigour: strong
- Yield potential: low to medium
**Harvest characteristics:**
- Average bunch weight: approximately 1 000 g
- Composition at maturity: 16 to 17° Brix
- Colour: red
- Very large spherical or ovoid berries with thick skins, whitish pulp,
- Juicy, simple flavour, 3 to 5 seeds
- Market potential: very good suitability for cold storage
**Phytotechnical aspects:**
- Pruning method: bilateral cordon (fertile with short pruning)
- Berry bursting: none to very little
- Compactness: medium
Sultanine/Thompson Seedless

**Origin:** presumed to be of natural origin

**Description:** medium-maturity white variety, small seeds

**Behaviour:**
- Vigour: strong
- Yield potential: small

**Harvest characteristics:**
- Average bunch weight: 320 to 410 g
- Composition at maturity: 17 to 18° Brix
- Colour: white
- Ellipsoid or ovoid berries, fleshy pulp containing only very small atrophied seeds

**Phytotechnical aspects:**
- Long pruning necessary to give a harvest as the first five or six eyes are infertile
- Low susceptibility to millerandage
- Susceptible to rot, mildew, oidium and anthracnose
- Berry bursting: strong
- Berry fall: strong

Superior Seedless® Sugraone

**Origin:** not specified

**Description:** white seedless variety, medium earliness

**Behaviour:**
- Vigour: strong to very strong
- Yield potential: small to very small

**Harvest characteristics:**
- Average bunch weight: 250 to 500 g
- Composition at maturity: 15 to 16° Brix, acidity 4 to 5 g H2SO4/l
- Colour: white
- Medium-sized berries, fleshy and not very juicy, plump bunches, thin skin
- Market potential: good unless the bunches are compact

**Phytotechnical aspects:**
- Pruning method: long (Guyot type)
- Susceptibility to coulure: very small
Flame Seedless

Origin: USA (Fresno University, California)

Description: very early red seedless variety, harvested in December in the Southern Hemisphere, and from May in the Northern Hemisphere, medium aromatic.

Behaviour:
- Vigour: very strong
- Yield: medium

Harvest characteristics:
- Medium-sized bunches, pyramidal shape
- Sugar content: IR: 17-18 °Brix
- Acidity/flavour: neutral to slightly acidic
- Colour: dark red-violet
- Berries: small round fruits, firm and crunchy pulp, thin skin
- Market potential: sensitive to handling, but holds up well in transport

Prime Seedless

Origin: Israel (Volcani Institute)

Description: very early white seedless variety, slightly muscat-like.

Behaviour:
- Yield: medium

Harvest characteristics:
- Bunches similar shape to Sugraone/Superior
- Sugar content: IR: 14 to 18 °Brix
- Acidity/flavour: low acidity
- Colour: white
- Berries: medium/large
## Wholesale market prices in Europe

**December 2013**

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### Wholesale Market Prices in Europe — December 2013

#### European Union — Euro

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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 — T. 41 (22) 730 01 11 / F. 41 (22) 730 09 06

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Our commercial team looks forward to seeing you on its spacious and friendly stand to present you the products and services that build the reputation of UNIVEG group.