Post-harvest and sulphur treatment

Litchi before sulphur treatment

A feature of litchi is that it does not ripen after picking and so it is essential to harvest the fruit when it is fully ripe. However, it deteriorates very rapidly at ambient temperature. The shell browns, dries and becomes brittle in two or three days. Loss of colour results from the oxidation of anthocyanin pigments, an irreversible reaction. The fruit is then more subject to bursting and secondary contamination by fungi.

Litchi after sulphur treatment

To prevent senescence before the fruit is sold, litchi can be fumigated with sulphur dioxide; this inhibits respiration and thus conserves texture and organoleptic qualities for several weeks. Sulphur has a fungicidal, anti-oxidant effect that keeps the shell flexible. This treatment can be applied to destemmed fruits or bunches that are sound, ripe, free of spotting, insects pricking and free of traces of damp on the shell. Sulphur is burned in a closed chamber containing the fruits. It causes the shells to turn yellow, whereas they are naturally pinkish red when the fruits are ripe. The fruits are then sorted again and packed. They remain yellow for as long as they are kept chilled. The colour gradually changes to pink ochre or purplish red when they are under warmer, moist, ventilated conditions allowing the elimination of the sulphur.

Sulphur treatment is the cornerstone of litchi marketing insofar as it lengthens conservation time, giving access to sea transport and hence large-scale exports. The procedure is used for several other fruits such as table grapes and dried fruits and it is also used for wines. The main difference is that litchi shells are not edible. Sulphur treatment is permitted in Europe under certain conditions. Consumer health protection regulations stipulate that the residual sulphur content must not exceed 250 mg/kg in the shell and 10 mg/kg in the fruit pulp. Numerous experiments have been conducted to define treatment procedures so that these limits are respected. Both professionals and the European authorities pay close attention to the question. Numerous control operations are performed throughout the life of the fruit in order to ensure that the regulations are respected. The gradual setting up of certification by operators should enhance product traceability and the mastery of treatment operations.

The continuation of use of sulphur is called into question from time to time. Indeed, with the general evolution of regulations towards the protection of consumer health, there is a great risk of heading towards a reduction in residue levels at best and at the worst the forbidding of treatment. One of the role of the sector us therefore to pay great attention to changes in the regulations concerning this point. A search for new conservation methods can also be an important approach. Unfortunately, litchi does not have sufficient economic weight to mobilise the resources required for such research, as is the case for other fruits.

Temperature during storage and transport is another key component in maintaining fruit quality in time. Indeed, chilling after harvesting, treatment and packing is performed by the transport facilities used. Here, it will be noted that litchi is one of the few tropical fruits that can withstand low temperatures (1°C ± 0.5°C). The combination of sulphur treatment and chilling allows good conservation of litchi. Fast chilling to the heart of the fruit is important for maintaining quality. Chilling must then be maintained to ensure as long a life as possible for the fruits. Any change in temperature may cause fruit deterioration and senescence.

Harvesting

Traditional harvesting is performed by hand with 'bunches' of fruits of the branch stored in bales or crates containing 10 to 15 kg only so that the fruits at the bottom are not crushed. These hand-made bales conserve good humidity around the fruits, preventing them from drying out. It is better to use slightly ventilated plastic crates to avoid crushing the fruits. The treatment and marketing of fruits are rapid to avoid the peel discoloration resulting from drying. Litchi is not a climacteric fruit and its biochemical characteristics change little after harvesting, except for gradual deterioration. Fruit maturity is generally appraised on the basis of colour, peel texture and tasting. It is considered that a soluble dry matter/acidity ratio of 2.1 to 2.7 corresponds to optimum quality.

Indicators

The main fruits	In shares by total volume and expenditure on fruits for the month in France	
%	Volumes	Expenditure
Apple	28	22
Orange	17	13
Strawberry	11	21

The trends for the main produce of the month significantly influence the overall situation of the fruit market. A column entitled 'Indicators' discussing these fruits precedes the pages devoted to a selection of exotic and citrus fruits.

APRIL 2007

Apple

The market remained very satisfactory. On the one hand demand held at a good level and on the other supplies were still moderate and markedly below average as a result of the meagre European stocks and a deficit in shipments from the southern hemisphere. The prices observed were 20% higher than in 2006.

April 2007 / April 2006			
Pirce	↗	Vol.	= ↗

Orange

The market displayed the same pattern as in March. Sales continued at an excellent level for the season in spite of the warm weather. The small quantities of competing fruits stimulated demand. Above all, prices remained very attractive as a result of the large volumes of 'Navelate' from Spain that remained to be sold.

April 2007 / April 2006			
Pirce	↘	Vol.	↗

Strawberry

The supply deficit was considerable as arrivals from Spain were 20% down on last year's figures as cultivated areas have decreased and yields were smaller. Sales of Spanish strawberries were therefore fairly fluid and prices held at a good level. In contrast, the first strawberries from south-east France were comparatively difficult to shift, with the exception of the ' Gariguette' variety.

April 2007 / April 2006			
Pirce	↗	Vol.	↘

Sea freight

April marked an unprecedented fifth month in a row that the Reefer Trends Time Charter Equivalent Spot market value averaged over 100c/cbft. With availability of tonnage forecast to remain tight for several weeks, there was every reason to suppose that May would also register a three figure final. All this at a time when historically the charter market is in freefall after the traditional March peak!

April 2007 / April 2006			
large reefers	↘	small reefers	↘

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

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Banana

Monthly and annual comparisons	
Volumes*	**EU reference price****
April 2007 / March 2007	
↘ – 9%	↘ – 3%
April 2007 / April 2006	
↘ – 7%	↗ + 6%

* Arrivals from Africa/West Indies ** Aldi price

APRIL 2007

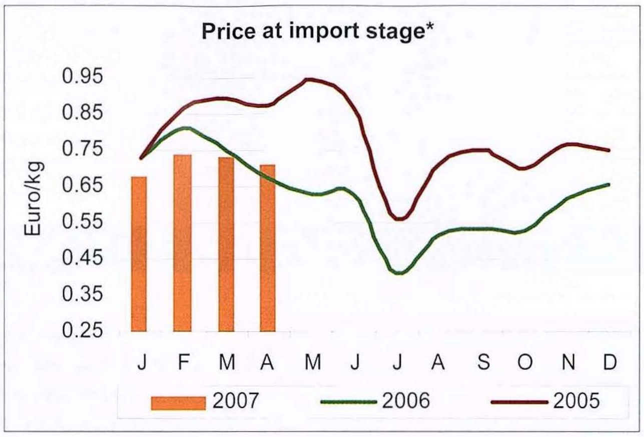
Performance was still as lack-lustre as it had been in March. The average quay price was slightly below the three-year average in France, although it should be remembered that this includes the excellent prices of April 2005.

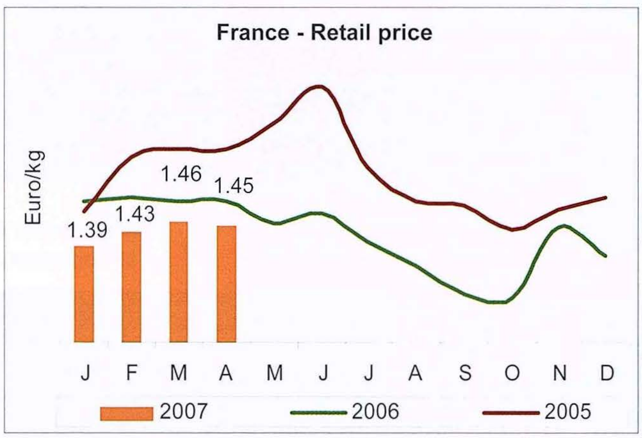
Demand was fairly brisk. Firstly, the market context was favourable throughout Europe as a result of warm weather favouring consumption and, above all, the weak competition from seasonal fruits such as strawberry. Secondly, French supermarket chains concentrated on marketing banana. Promotion operations returned to normal after being rare in March. Retail prices were also very attractive, whether for special offers or not.

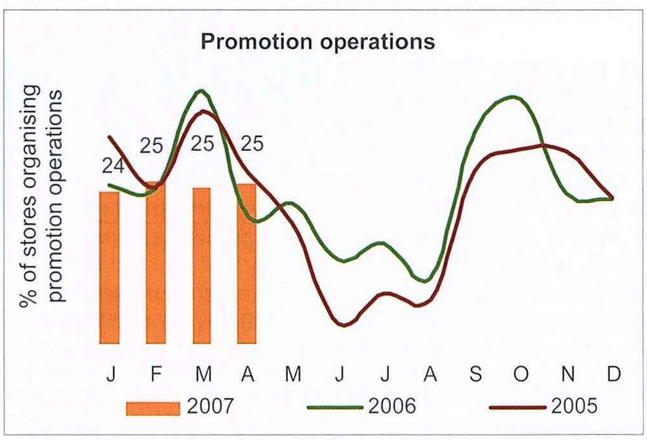
Supplies arriving on the EU market were fairly substantial even though the deficit in fruits from the West Indies and Africa was as marked as it had been in March. Shipments from the West Indies returned to close to normal levels but West Africa suffered distinct production losses as a result of the Harmattan and the deficit in arrivals increased, with a sharp decrease in fruits from Cameroon. Deliveries of dollar bananas were probably larger than in 2006. Ecuadorean exports to all destinations remained at an average level but the share shipped to Russia decreased. Furthermore, shipments from Costa Rica and Colombia continued to be distinctly larger than last year's.

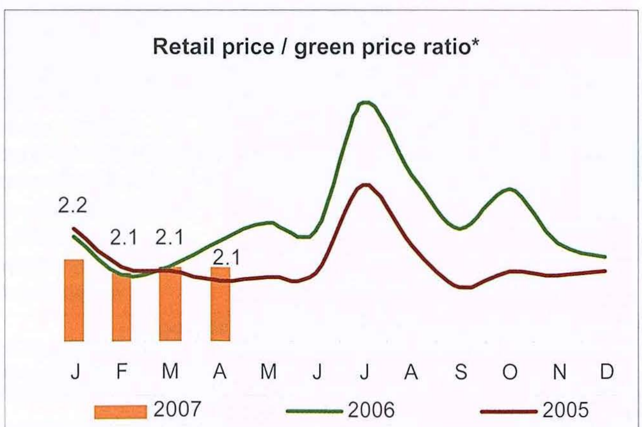
The price decrease was therefore more marked in northern Europe than in France, especially as retail chains continued to increase their margins in countries like Germany.

French banana market — Indicators









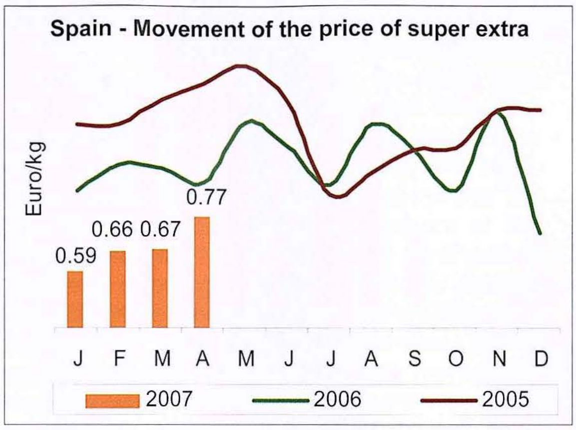
* African origin

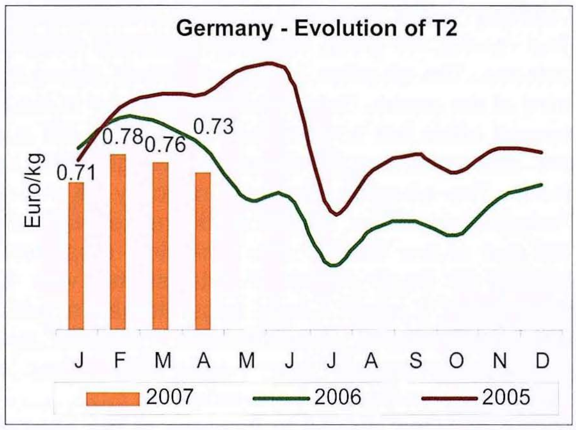
European banana market — Indicators

Main origins in Europe

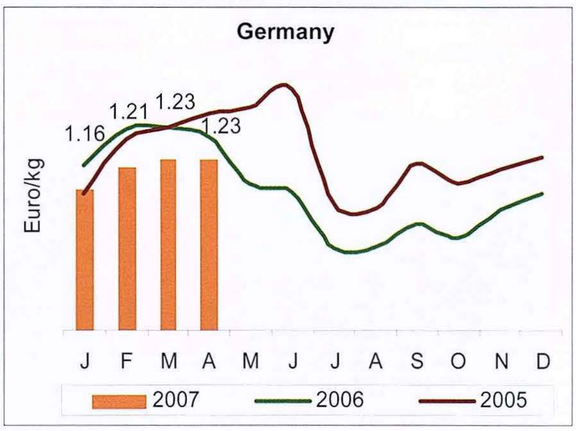
Tonnes	April 2007	Comparisons (%) 2007/2006	Comparisons (%) 2007/2005	Total season 2007	Season comparisons (%) 2007/2006	Season comparisons (%) 2007/2005
Martinique	17 246	+ 15	- 16	64 964	+ 10	- 7
Guadeloupe	3 861	+ 42	- 13	15 586	+ 16	- 11
Canaries	33 898	+ 19	+ 5	132 175	+ 10	+ 12
Côte d'Ivoire	14 117	- 16	- 17	57 979	- 21	- 17
Cameroon	15 974	- 26	- 27	79 273	+ 6	+ 1
Ghana	1 656	-	-	9 373	-	-

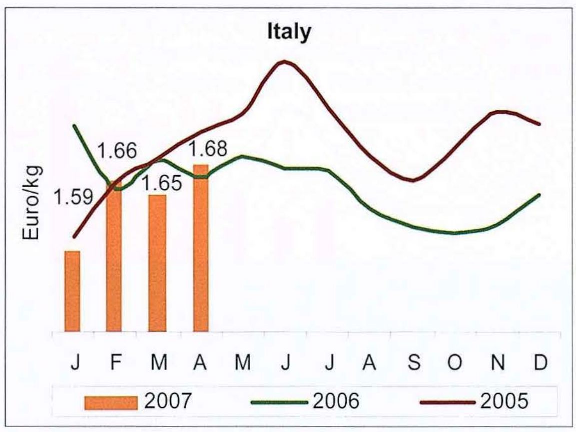
Green price in Europe

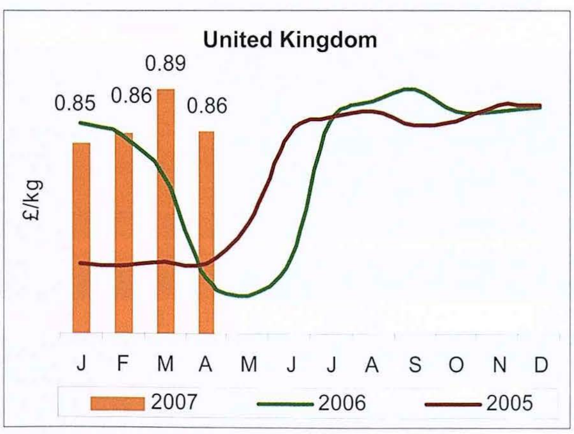


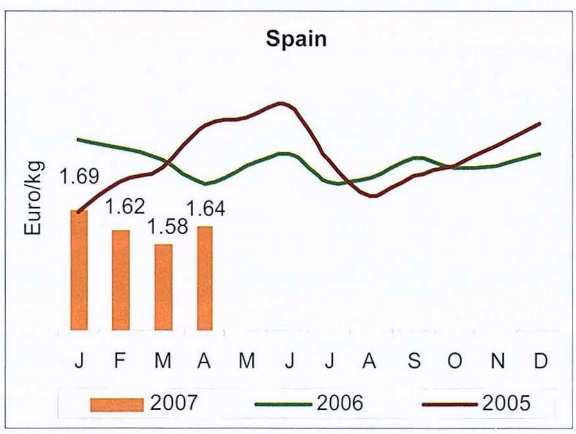


Retail price in Europe

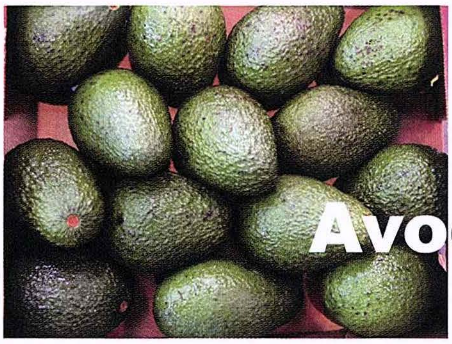








Sources: Cirad, SNM, TW Marketing Consulting



Avocado

Monthly and annual comparisons	
Volumes	**Price**
April 2007 / March 2007	
↘ – 5%	↗ + 11%
April 2007 / April 2006	
↗↗ + 42%	↘↘ – 40%

APRIL 2007

The market reached a decent level (at last!) after a long slump. The average monthly price was still some 20% lower than the three-year average but the volumes market increased in similar proportions.

The market for green varieties gradually recovered its balance. The situation remained difficult during the first third of the month. Sales perked up thanks to the Easter special offers but arrivals from Israel were still substantial and continued to compete strongly with Kenyan fruits. The situation changed radically in mid-month. Arrivals from Israel started to decrease markedly with the end of the 'Fuerte' and 'Pinkerton' crops while the season for South African 'Fuerte' started very late. In this context, Kenyan 'Fuerte' began to gain a position on the French market. Supplies were completed by a few batches of 'Ettinger' and 'Fuerte' from Peru. Prices increased from Week 16 onwards.

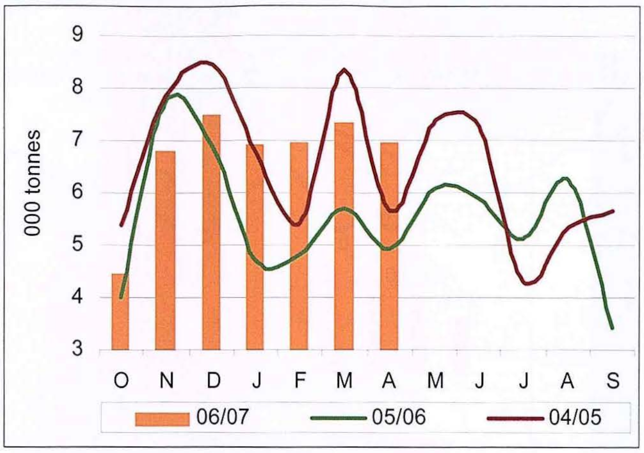
Prices of 'Hass' started to increase at the beginning of the month as a result of a marked supply deficit dominated by Spanish produce as the small shipments from Mexico and arrivals from Israel were still concentrated on the British market in the context of contracts signed with retail distributors.

More information...

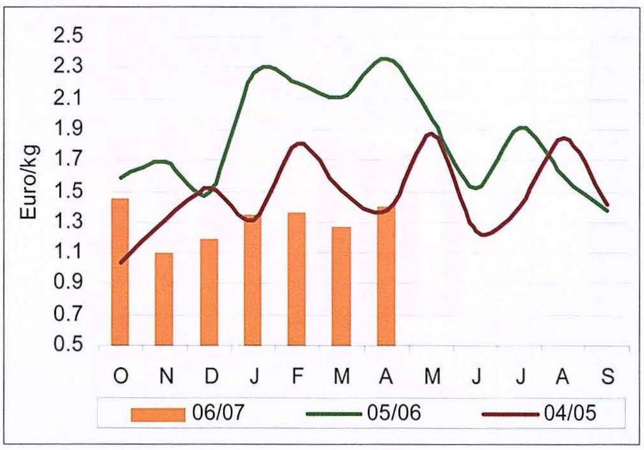
The volumes of avocado exported by Israeli operators during the 2006-2007 season should approach a record 14 million boxes. This is nearly double the figure for 2005-2006.

Estimated market releases in France

Volumes

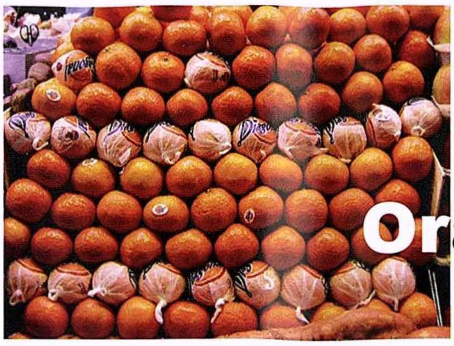


Price at import stage



Estimated market releases in France by origin

Tonnes	April 2007	Comparisons (%) 2007/2006	Comparisons (%) 2007/2005	Total season 2006/2007	Season comparisons (%) 06-07/05-06	Season comparisons (%) 06-07/04-05
Chile	38	-	-	5 936	+ 118	+ 59
Mexico	272	- 62	- 62	7 459	- 44	- 42
Israel	3 182	+ 6 263	+ 54	21 316	+ 126	+ 13
Spain	2 313	+ 7	+ 38	11 029	- 8	- 19
Kenya	925	- 28	+ 33	2 102	+ 8	- 9
Peru	35	- 90	-	35	- 90	-
South Africa	201	- 46	- 61	201	- 46	- 61
Total	**6 966**	**+ 42**	**+ 23**	**48 078**	**+ 19**	**- 7**



Orange

Monthly and annual comparisons	
Volumes	**Price**
April 2007 / March 2007	
↘↘ – 22%	↗ + 3%
April 2007 / April 2006	
↗↗ + 22%	↘ – 4%

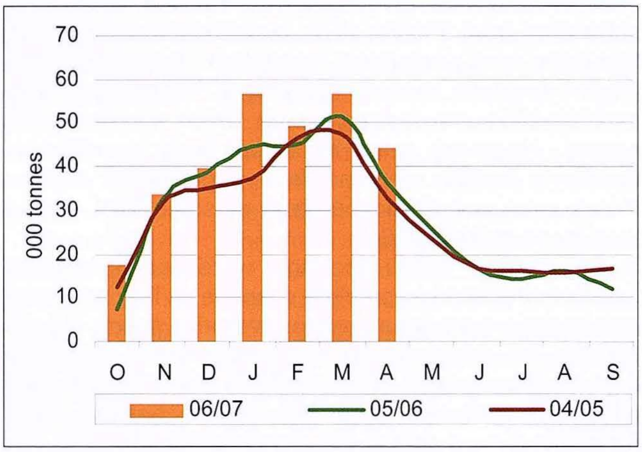
APRIL 2007

The market displayed the same pattern as in March. Sales continued at an excellent level for the season in spite of the warm weather (French sales were nearly 20% above the three-year average according to our estimates). The small quantities of competing fruits stimulated demand. Above all, prices remained very attractive as a result of the large volumes of 'Navelate' from Spain that remained to be sold. Shipments to the United States were up strongly in comparison with 2006, reaching some 20 000 tonnes (all varieties) but this did not result in any noticeable easing of pressure at the production stage 'Navelate' from Spain thus continued to form the backbone of orange supplies to the EU market. The volumes sold increased strongly in comparison with previous years at the expense of juice oranges. 'Maroc Late' did not find a position on the community market and most of the fruits were sold on the domestic market or shipped to Russia. Spanish operators limited their shipments of 'Valencia' in order to favour sales of 'Navelate'.
The 'Maltese' season finished under good conditions on a niche market at the end of the month.

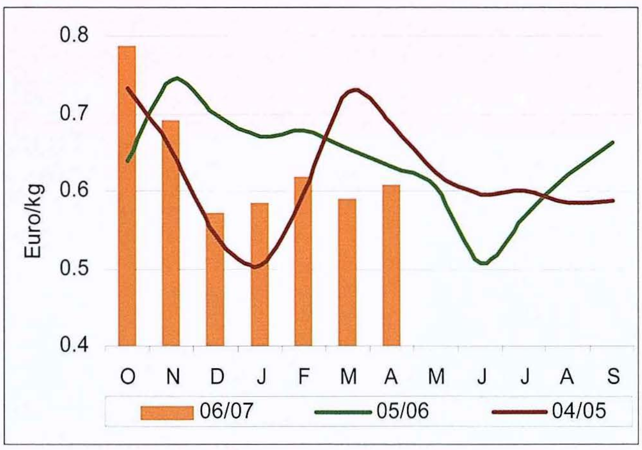
More information...
What can be thought about the considerable fall in prices of concentrated orange juice, that slid from 210 cents per lb in March 2007 to 150 cents ($) at the beginning of June ? Traders analyse this as a return to reason after an excessively high period and not as a deep-seated trend. On the one hand, world demand is healthy thanks to increased consumption in emerging countries and the recovery of growth on mature markets resulting from the explosion of the market for smoothies. On the other, world orange production will be lastingly limited in the medium term by the problems in Florida.

Estimated market releases in France

Volumes

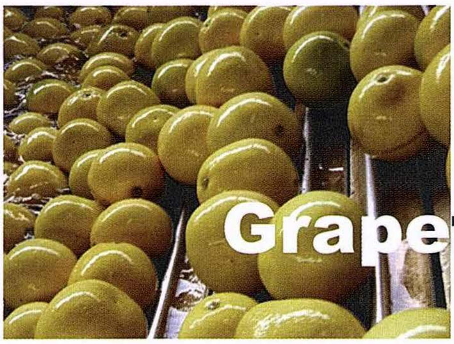


Price at import stage



Estimated market releases in France by origin

Tonnes	April 2007	Comparisons (%)		Total season	Season comparisons (%)	
		2007/2006	2007/2005	2006/2007	06-07/05-06	06-07/04-05
Spain	40 884	+ 28	+ 51	267 554	+ 20	+ 28
Tunisia	2 016	+ 3	- 36	16 412	- 13	- 12
Morocco	1 171	- 50	- 50	3 744	- 59	- 49
Total	**44 071**	**+ 22**	**+ 35**	**287 710**	**+ 15**	**+ 22**



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Grapefruit

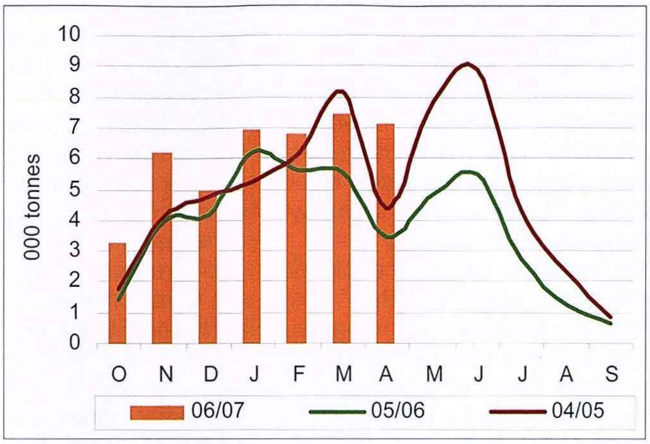
Monthly and annual comparisons	
Volumes	**Price**
April 2007 / March 2007	
↘ – 4%	↗ + 5%
April 2007 / April 2006	
↗↗↗ + 107%	↗ + 12%

APRIL 2007

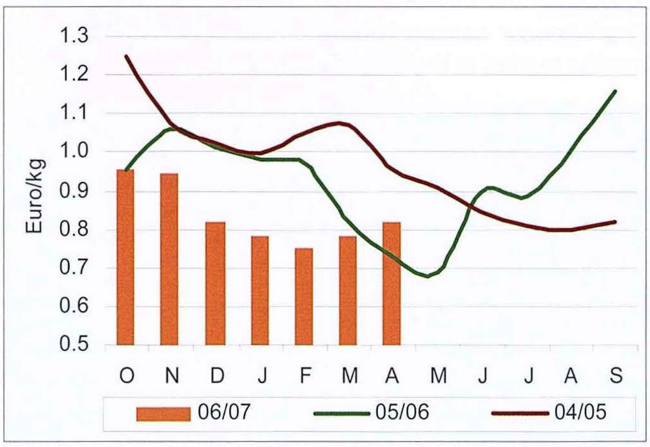
Overall market supplies were much larger than forecast as a result of an unexpected increase in shipments from Florida. The quantities received from Florida in April were much larger than those arriving in the two previous seasons and only 20% down on those of 2003-2004, the last season in which supplies were normal. However, sales remained fluid, in particular thanks to healthy demand from supermarket chains. Prices were not raised but held at some 20% higher than those of 2003-2004.
In this context, Israeli operators were unable to profit fully from the almost complete absence of Turkish goods and continued to use an aggressive price policy. Nevertheless, the volumes sold were fairly markedly higher than the three-year average as sales gained fluidity from mid-month onwards. The first limited batches from Argentina arrived right at the end of the month.

Estimated market releases in France

Volumes



Price at import stage



More information...
Cumulated exports from Florida to Europe during the 2006-2007 season should reach some 4.3 million boxes of about 17 kg of fruits. This is a clear increase in comparison with the 2.8 million boxes shipped in 2004-2005 and, even more so, with the 2.1 million boxes of 2005-2006. However, the figure is still more than 35% down in comparison with the volumes exported before the 2004 hurricanes.

Estimated market releases in France by origin

Tonnes	April 2007	Comparisons (%)		Total season	Season comparisons (%)	
		2007/2006	2007/2005	2006/2007	06-07/05-06	06-07/04-05
Turkey	241	- 80	+ 68	6 008	- 40	+ 18
Florida	5 439	+ 431	+ 163	29 648	+ 96	+ 40
Israel	1 363	+ 16	- 23	6 607	+ 27	- 16
Argentina	67	+ 218	- 84	67	+ 218	- 84
Total	**7 110**	**+ 107**	**+ 62**	**42 330**	**+ 39**	**+ 23**

Litchi

AVRIL 2007 — Litchi - Import prices in Europe		
Euro/kg	Min	Max
Thailand — By air		
Litchi	5.50	9.00
Longan	1.80	2.00
Rambutan	6.00	6.50

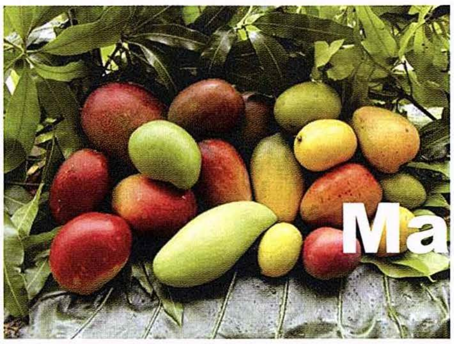
Litchi was a rare fruit on the European markets in April. The only supplier was Thailand, shipping limited quantities by air and that were sold through traditional retail channels at a completely different rate to the sales of preceding months when the Indian Ocean exporters supplied large quantities. The small quantities available meant that prices rose distinctly.

After sale in mid-March of the last batches shipped by sea from South Africa and Madagascar, the litchi market started up again with deliveries by air from Thailand, arriving mainly in northern European countries. The Belgian and Dutch markets took the first deliveries from this origin in the last week in March. Shipments continued in April with prices displaying a downward trend.

Prices on the Belgian market were EUR 8.00-9.00 per kg at the beginning of the month and then lost ground gradually to EUR 6.50 per kg at the end of April. The fruits were a little larger at the end of the month with the switch to a new production zone in northern Thailand.

A similar pattern was seen on the Dutch market where litchi fetched EUR 8.00-8.75 per kg at the beginning of April, weakening to EUR 6.75-7.35 in mid-month and steadying at EUR 5.50 to 6.50 per kg at the end of the month. The few hundred boxes shipped from Thailand sold without difficulty to supply retailers specialising in exotic fruits, although supplies consisted of small fruits with mediocre taste qualities. No litchi was available on the French market throughout April. A few batches of substitutes like longan and rambutan were available from time to time at EUR 1.80-2.00 and 6.00-6.50 per kg respectively.

Thai litchi supplies should increase in May and be more widely distributed. Shipments by air should finish gradually and be replayed by produce in sea containers. This change on the type of transport will probably lead to a decrease in prices.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Mango

APRIL 2007

Mango — Weekly arrivals — Estimates in tonnes				
weeks 2007	14	15	16	17
By air				
Peru	20-30	10-20		
Mali	40-50	45-60	45-60	90-100
Burkina Faso	20-25	40-50	20-35	25-30
Côte d'Ivoire	8-10	40-50	50-70	50-60
By sea				
Brazil	1 270	1 600	1 900	1 700
Peru	220	200	110	100
Côte d'Ivoire	330	220	220	1 200
Mali			80	330
Burkina Faso		110	22	180

April is a transition period for the mango market. Easter meant that the first half of the month was still busy, with small supplies on the market and high prices—although these were a little weaker than in March. The marked dipped again in the second half of the month for reasons of increased deliveries and shrinking demand.

The week before Easter was very busy and prices were high. This trend continued in the second week of April and then the market slowed. The last batches of 'Kent' from Peru sold well. At the same time, deliveries of 'Amélie' from Côte d'Ivoire made up for the overall shortage of goods on the market and sold at good prices. The lack of fruits also enabled 'Tommy Atkins' from Brazil to make up for the deficit that had lasted for several weeks. The character of the market changed in mid-month with the increase in supplies and decreased demand. This is when Côte d'Ivoire changed the supply pattern, switched from 'Amélie' to 'Kent'. The change first had a positive effect on maintaining prices, which weakened markedly at the end of the month with the sudden increase in supplies. The dominance of small fruits also unbalanced the market as these sold at lower prices than those fetched by the larger fruits, which were a minority in arrivals from Côte d'Ivoire. The price of Peruvian mango also fell at the end of the month because of a worsening of fruit quality and a switch in retailers' references to imports from Côte d'Ivoire. The price of 'Tommy Atkins' from Brazil slumped suddenly as a result of lack of interest from distribution channels that has sold them for lack of any alternative when the market was under-supplied and returned to 'Kent', a fruit that better matches demand in France.

The air mango market gradually took a more marked downward tilt in the second half of the month. The little-coloured Peruvian mangoes on the shelves for Easter were more difficult to sell in subsequent weeks. After a period of rapid sales, the price of West African 'Amélie' dropped, mainly as a result of the availability of the better-liked coloured varieties from the same supplier countries. The varieties 'Valencia', 'Smith', 'Palmer', 'Irwin', etc. from Mali, which had made up for the absence of coloured mangoes for the Easter period and fetched strong prices, sold at falling prices in the second half of the month. Arrivals of 'Kent' mangoes from Mali and Burkina Faso started in mid-April but did not really benefit from the existing good market conditions. Their price crumbled rapidly as supplies increased. 'Kent' from Côte d'Ivoire sold well in the first half of April and then ran up against increasing supplies in the second half of the month. This resulted in weakening prices, although the movement was less rapid that for the fruits of other origins available on the market.

Mango — Import prices on the French market — Euros							
Weeks 2007		14	15	16	17	April 2007 average	April 2006 average
By air (kg)							
Peru	Kent	5.00-7.00	5.00-6.00	4.00-4.50	-	4.65-5.80	na
Mali	Amélie	3.20-3.50	2.70	2.50	2.50-2.80	2.70-2.85	1.85-2.05
Mali	Valencia	4.00-4.50	3.20-5.00	2.70-3.50	2.60-2.80	3.10-3.95	2.20-2.65
Mali	Kent	-	-	3.00-4.00	2.80-3.50	2.90-3.75	2.30-2.90
Burkina Faso	Kent	-	-	-	3.00	3.00	2.20-3.00
Côte d'Ivoire	Kent	5.00-6.00	4.50-5.50	4.00-4.50	3.50-4.00	4.25-5.00	2.75-3.45
By sea (box)							
Brazil	Tommy Atkins	6.00-9.00	6.50-7.00	5.00-6.00	4.00	5.35-6.50	na
Côte d'Ivoire	-	5.00-7.00	5.00-6.00	5.00-8.00	4.00-6.00	4.75-6.75	2.75-4.25
Peru	Kent	8.00-12.00	6.00-7.00	6.00-7.00	4.00-5.00	6.00-7.75	2.30-3.30

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Pineapple

APRIL 2007

Pineapple — Import price		
Euros	Min	Max
By air (kg)		
Smooth Cayenne	1.60	2.00
Victoria	3.00	4.00
By sea (box)		
Smooth Cayenne	5.00	9.00
Sweet	7.00	10.50

As Easter is generally one the transition periods observed during the pineapple season, a fairly dynamic month was expected. In fact, supplies were small throughout April and demand was only just enough to clear the volumes available. The situation was fairly similar on the substantially under-supplied market for fruits shipped by air. Although prices held at a good level, they did not really improve as the quality of the batches available was uneven. Supplies were also small on the 'Victoria' pineapple market, with irregular quality and volumes.

The market gave an impression of shortage at the beginning of the month in the run-up to Easter. Supplies were smaller than forecast—especially from Latin American countries—and demand was fairly healthy. Sales of 'Sweet' were fluid and steady under these conditions and prices even increased. The market was a little more difficult from 'Smooth Cayenne'. Sales were fairly steady but prices did not rise. The two weeks after Easter were quite difficult for operators in the pineapple sector. Indeed, even though supplies were fairly small, demand was smaller than expected and so stocks of unsold fruits accumulated for some operators. Furthermore, demand usually slumps on the pineapple market after Easter; this was also the case in April, when weather conditions was also exceptionally fine and exceptionally warm. This results in falling prices on the 'Sweet' market although the levels were still satisfactory for the time of year. Stock accumulation on the 'Smooth Cayenne' market led to clearance sales, especially for size A6 fruits. The situation was all the more difficult as the quality of 'Smooth Cayenne' supplies was uneven and the fruits were difficult to keep. The situation improved during the last week of the month. Supplies were still small, especially from Latin American countries. No stocks were outstanding and there was even a shortage of 'Sweet'. This made it possible to keep prices at a good level while those of 'Smooth Cayenne' remained fairly low, even though there was some improvement.

Supplies by air were small and irregular throughout the month. Demand was not exceptional, just firm and steady but no more. The shortage of goods at the beginning of the month enabled importers to sell batches that would usually have failed to find takers, at least not at such good prices. The comparative weakness of demand and very uneven fruit quality prevented prices from rising but sales were nonetheless more fluid. Quality problems halted arrivals of 'sugarloaf' pineapples from Benin in Weeks 15 and 16. Of all the fruits from various supplier countries, those from Cameroon seem to have displayed the most even quality throughout the month.

Supplies of 'Victoria' were also very irregular in both quality ad quantity. The batches were often lack-lustre, greyish and did not vary according to origin—as usually happens—but according to brand. The arrival of larger volumes from Réunion at the end of the month caused a dip in prices and especially in those of fruits from competing supplier countries.

Pineapple — Import prices on the French market — Main origins — Euros					
Weeks 2007		14	15	16	17
By air (kg)					
Smooth Cayenne	Benin	1.80-1.90	1.80-1.90	1.80-1.90	1.80-1.90
	Cameroon	1.80-1.90	1.80-1.90	1.80-1.90	1.80-1.90
	Côte d'Ivoire	1.95-2.00	1.80-1.90	1.80-1.90	1.80-2.00
	Ghana	1.65-1.75	1.65-1.75		1.60-1.70
Victoria	Côte d'Ivoire	3.00-3.50	3.00-3.50	3.00-3.20	3.00
	Ghana	3.00-3.50	3.00-3.50	3.00-3.20	3.00-3.20
	Réunion	3.60-4.00	3.60-4.00	3.60-3.80	3.60-3.80
	Mauritius	3.50-3.80	3.50-3.80	3.20-3.50	3.00-3.60
	South Africa	3.00-3.50	3.00-3.50	3.00-3.20	3.00
By sea (box)					
Smooth Cayenne	Côte d'Ivoire	6.00-8.00	5.50-7.00	5.00-6.50	5.00-7.00
	Ghana	8.00-9.00	6.00-6.50	6.00-6.50	6.00-6.50
Sweet	Côte d'Ivoire	8.50-10.50	8.50-10.00	8.50-9.00	8.50-9.00
	Cameroon	8.50-10.50	8.50-10.00	8.50-9.00	8.50-9.00
	Ghana	8.50-10.50	8.50-10.00	8.50-9.00	8.50-9.00
	Costa Rica	9.00-10.50	7.00-9.00	7.00-9.00	7.00-9.00

Sea freight

Monthly spot average		
US$cents/cubic foot x 30 days	Large reefers	Small reefers
April 2007	102	113
April 2006	114	118
April 2005	113	116

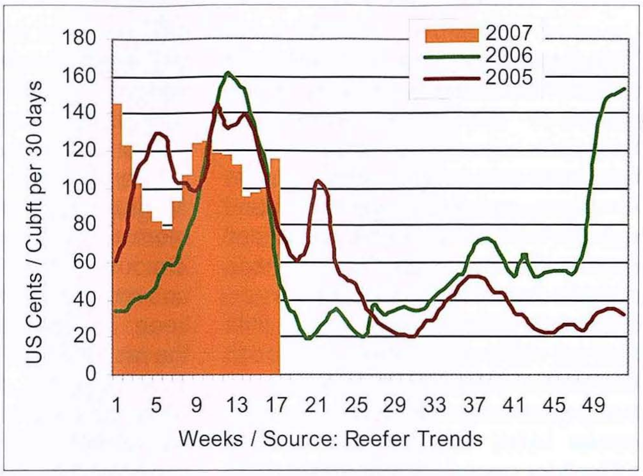
APRIL 2007

April marked an unprecedented fifth month in a row that the Reefer Trends Time Charter Equivalent Spot market value averaged over 100c/cbft. With availability of tonnage forecast to remain tight for several weeks, there was every reason to suppose that May would also register a three figure final. All this at a time when historically the charter market is in freefall after the traditional March peak!

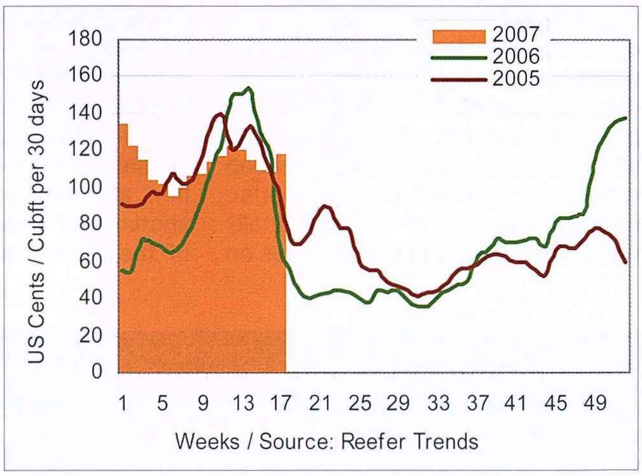
There are three principal causes for the stability at such high values despite the high bunker costs: the first relates back to the South Atlantic squid catch, which has absorbed a lot of tonnage for a long time. The second is the non re-delivery of tonnage from the Chilean season. It appears that all vessels involved in the Chilean trade have been re-deployed without negatively affecting the amount of available capacity on the Spot market. The third is the reduced number of operators involved in the market. Instead of fixing according to supply and demand, owners have been resolutely prepared to force the hand of the charterer by sitting and waiting if necessary. This in turn may have been one of the contributing factors to the structural change evident in the reefer charter market. If anything this process of structural change accelerated in April. CoMaCo's 'capture' of (an estimated!) 19 vessels on Time Charter is a breathtakingly bold and aggressive manoeuvre. Not only does it give the charterer greater control of the reefer charter market, but it also gives it more influence at both source and in the banana markets of the Eastern Mediterranean as well as a significant competitive advantage over its rivals. The move by CoMaCo also underlines the inelasticity of demand for modern, fuel-efficient, deck-stow container friendly units. It would come as little surprise to see the company starting to act as a vessel operator and sub-chartering to the other blue-chip accounts. But will the change of market behaviour prompt a rash of newbuildings? Undoubtedly not, especially when the requisite breakeven values currently exceed 100c/cbft TCE. But then again, who is to say that 100c/cbft will not prove to be a bargain in 5-10 years time?

Weekly market movement

Large reefers (450 000 cuft)



Small reefers (330 000 cuft)



Wholesale market prices in Europe

April 2007

					EUROPEAN UNION — IN EUROS				
					Germany	Belgium	France	Holland	UK
AVOCADO	Air	TROPICAL	BRAZIL	Box			11.70	12.50	
	Sea	FUERTE	KENYA	Box	4.40		4.70		
			PERU	Box	5.25				
			SOUTH AFRICA	Box		5.50			
		HASS	ISRAEL	Box		8.30	7.25	5.75	
			KENYA	Box			7.25		
		NOT DETERMINED	ISRAEL	Box					6.03
			MEXICO	Box					8.05
			PERU	Box					5.30
			SOUTH AFRICA	Box					5.86
			GREECE	Box		7.00			
		PINKERTON	ISRAEL	Box				6.25	
			PERU	Box				5.25	
		REED	ISRAEL	Box	4.25	6.25	5.25	6.15	
		ARDIT	ISRAEL	Box				6.15	
		WURTZ	ISRAEL	Box	4.35				
	Truck	HASS	SPAIN	Box			8.00		
BANANA	Air	RED	ECUADOR	kg				4.44	
		SMALL	COLOMBIA	kg		6.20	5.70		
			ECUADOR	kg				5.08	
CARAMBOLA	Air		MALAYSIA	kg	3.57	4.50	4.86	4.19	4.39
	Sea		MALAYSIA	kg		3.00		2.64	
COCONUT	Sea		COSTA RICA	Bag		6.00		3.50	
			COTE D'IVOIRE	Bag			6.34	7.75	8.78
			DOMINICAN REP.	Bag				11.63	10.25
			SRI LANKA	Bag		8.75		12.50	
DATE	Sea	NOT DETERMINED	ISRAEL	kg				2.72	6.88
		MEDJOOL	ISRAEL	kg			7.50	6.59	
GINGER	Sea		BRAZIL	kg			1.20		
			THAILAND	kg	0.92	1.20	1.20	1.40	
			CHINA	kg		0.74	1.00	0.60	0.85
GUAVA	Air		BRAZIL	kg		4.00	4.35	4.22	
			THAILAND	kg		5.27			
KUMQUAT	Air		ISRAEL	kg			4.00		4.39
			SOUTH AFRICA	kg				4.00	
			MOROCCO	kg					4.76
LIME	Air		MEXICO	kg			3.60		
	Sea		BRAZIL	kg	1.06	1.06	1.35	1.16	1.45
			MEXICO	kg			1.90		1.61
LITCHI	Air		THAILAND	kg		7.50		6.25	
MANGO	Air	ATKINS	NICARAGUA	kg	0.75				
		KENT	COTE D'IVOIRE	kg		2.30		4.25	
			PERU	kg			1.88		
			MALI	kg			4.25		
		AMELIE	MALI	kg		2.96	2.75	3.38	
			BURKINA FASO	kg			2.30	2.55	
		PALMER	BRAZIL	kg	3.13				
		NAM DOK MAI	THAILAND	kg				5.90	
		VALENCIA	MALI	kg			3.75		