

FR*ui*TROP

English version

CLOSE-UP BANANA

Counter-season melon:
fierce competition

Citrus & exotics:
monthly review



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Banana, from plantation to customer



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- > Segmented supply, with fruits sourced in Africa, the West Indies and Latin America and a variety of packaging.



Dole France SAS

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Environmental labelling: retailers ready to ambush

The French 'carbon tax' did not survive the regional elections. Its abandoning—or postponing at best—has taken down with it other emblematic French political projects concerning the environment. It is the case of the environmental marking of consumer products. This was to become obligatory from 1 January 2011 but has been postponed indefinitely, causing varied reactions and not just disappointment. Some operators are delighted to see that the pressure has eased, for it must be admitted that with only months to go before implementation, the calculation and presentation procedures were very vague. The more incautious ones go as far as thinking that it is a good occasion to give up and abandon efforts to assess environmental impacts related to the production and distribution of their goods. This narrow view of these issues for the world and for future generations can be deplored. But can we ask everybody to handle all the misery in the world or even be aware of it? No, of course not. What is more serious is the lack of anticipation or vision among this small group of operators. For delighting in the failure of such regulations means giving free rein to private initiatives. The French authorities are withdrawing, leaving a broad avenue open to distributors who we know are quick to edict and finally impose their rights. Casino must be delighted as it is the only French retail chain to propose a credible concept. The others are watching closely, very closely. To how many pseudo-greens should food industries reply to? Finally, we know in advance what happens to the ostrich that buries its head in the sand—its predator gets it of course.

Denis Loeillet



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FRUITROP

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Wholesale market prices in Europe

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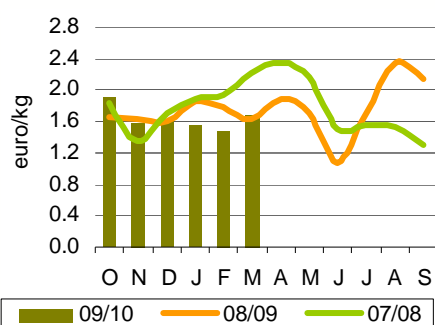
Cover photo: Régis Domergue

Avocado

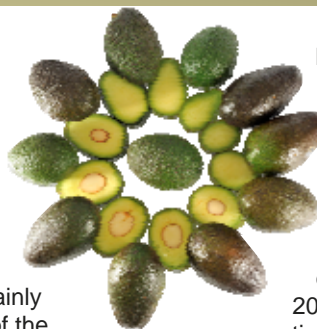
March 2010

Supply was smaller than in February and the market was able to recover. Arrivals of green varieties returned to close to average with the peak season for 'Fuerte' from Peru but with a decrease in the 'large' Israeli varieties like 'Fuerte' and 'Pinkerton' and a very late start of Kenya at the end of the month. Supply of 'Hass' also decreased. The exceptional long Chilean season started to come to an end, allowing Spain and Israel to develop their market releases. A few early batches from Peru were available at the end of the month. Prices changed little in the first half of the month, especially as some batches of 'Hass' from Latin America were not up to standard as regards quality. The upwards movement then gained significant momentum as demand was brisker with the pre-Easter special offers.

Avocado - France - Import price



■ Avocado from Brazil: a developing source! With a harvest of some 150 000 t, Brazil is one of the five leading avocado producers in the world. The production area is mainly in the southern part of the country—more than 70% of the area is in São Paulo, Minas Gerais and Paraná states—and the crop consists mainly of West Indian varieties. Brazil was thus almost totally absent from the international avocado trade, where Guatemalan and Mexican avocados are preferred for their smaller size and greater robustness. However, a change in trend is noted, with a distinct increase in exports to the



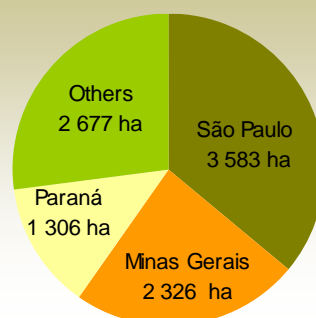
EU thanks to the development of plantations of 'Fuerte' and 'Hass', especially in São Paulo state. Volumes had totalled less than 1 000 t until 2005-06 and exceeded 2 600 t in 2009. Growth should continue in the years to come.

Source: CIRAD

■ 2010 summer avocado season. Supply of the EU market should remain fairly substantial during the 2010 summer season, remaining at over 100 000 t. Preliminary estimates show that South African shipments should be a little larger than in 2009 and exceed 10 million boxes. South Africa should therefore lose to Peru for the second year running its title of historic major supplier of the community market in the summer. In spite of the opening of the US market, practically all the potential 50 000 t of Peruvian 'Hass' exports should remain earmarked for the EU. The Kenyan harvest should also be good although exports could be affected by logistic problems.

Source: CIRAD

Avocado - Brazil - Geographical distribution of the production



PRICE	Varieties	Average monthly price euro/box	Comparison with the last 2 years
	Green	5.00-5.20	- 24%
	Hass	7.00-7.40	- 15%

VOLUMES	Varieties	Comparison	
		previous month	last 2 years average
	Green	↘	+ 5%
	Hass	↗	+ 50%

VOLUMES	Source	Comparison		Observations	Cumulated total / cumulated average for last 2 years
		previous month	average for last 2 years		
	Chile	↘↘	na	Season prolonged. Volumes decreasing but remaining significant. Some batches displayed uneven quality.	+ 141%
	Mexico	=	- 41%	Moderate supply. Some batches displayed uneven quality.	- 28%
	Spain	↗	+ 2%	Larger supply, returning to an average level.	- 21%
	Peru	↗	+ 2%	Full season for 'Fuerte', with moderate volumes. First, limited volumes of 'Hass' at the end of the month.	+ 17%
	Israel	↗↗	+ 166%	Quantities much larger than in 2008 and 2009 (early decrease). Peak season for 'Hass'. 'Fuerte' and 'Pinkerton' dwindled at the end of the month.	+ 33%

Avocado — European Union										
Imports from the main southern hemisphere sources										
Tonnes	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total, incl.	49 955	57 926	52 851	68 213	61 677	81 440	81 525	87 247	114 007	101 750
Peru	1 299	2 849	4 401	11 266	14 590	18 096	30 508	35 857	49 894	45 777
S. Africa	38 205	38 908	36 266	36 404	29 872	46 955	35 934	37 944	50 578	38 345
Kenya	10 294	15 600	11 523	19 828	16 236	15 458	13 641	11 999	11 868	15 015
Brazil	156	569	661	715	979	931	1 442	1 447	1 667	2 613
Argentina	58	326	440	460	709	1 224	1 804	1 709	739	1 984

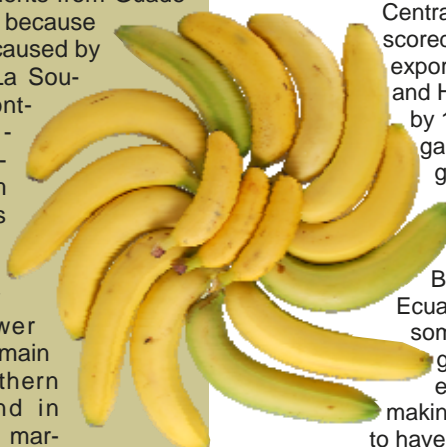
Source: Eurostat

Banana

March 2010

In spite of steadily rising prices the performance for the month was disappointing. Demand was still fairly brisk. The lateness of competing fruits and numerous promotion operations stimulated releases, even if the return of bitterly cold weather in mid-month had a brief negative impact.

However, supply was quite large. Among dollar sources, volumes from Costa Rica were fairly moderate as shipments to the USA were larger than in other years. Arrivals from Colombia and Ecuador were markedly larger than average. Supplies from Africa were also large with a recurrent deficit in fruits from Cameroon but with continued large shipments from Côte d'Ivoire and Ghana. Finally, supplies from the French West Indies were average, with the absence of shipments from Guadeloupe from Week 10 because of production losses caused by the eruption of the La Soufrière volcano in Montserrat counter-balanced by satisfactory shipments from Martinique. Prices continued their seasonal rise but the average monthly price was 17% lower than average on the main markets in the northern part of the EU and in France. The Spanish market continued to be very difficult. Prices remained rock-bottom because of weak demand and large supplies of Canary Island bananas in spite of the application of a quota system.



■ After a serious slump, the US banana market has woken up again, at least in terms of volume. In the first two months of the year, the US imported 11% more bananas than during the same period in 2009. Unsurprisingly, Central American sources scored best. Guatemalan exports are up by 14% and Honduran shipments by 13%, but Costa Rica gained the most ground with + 29%. The latter source has fully recovered its export potential. By a ricochet effect, Ecuador had to give up some of the ground gained in 2009 and exports lost 6%, making it the only supplier to have suffered a dip as even Colombia gained 4%. Ecuador has been obliged to find markets elsewhere, especially in the EU and Russia.

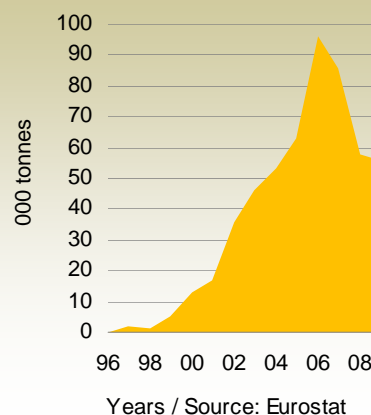
Source: CIRAD

■ Del Monte relaunches operations in Brazil. While Brazilian presence is decreasing from year to year on the international—

and especially European—banana market, the Del Monte group has announced that it will be able to harvest a million boxes from its new Limoeiro do Norte plantation from 2011 onwards. The project covers 500 hectares. Del Monte claims to have used a disease-resistant variety, but has not specified what it is. The group already operates in Rio Grande do Norte state in Brazil. In 2008, its banana plantations were seriously flooded by the river Acu.

Source: Reefer Trends

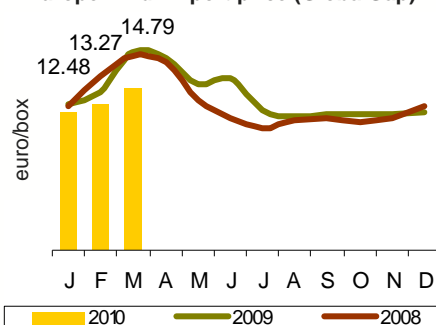
Banana - EU Imports from Brazil



EUROPE — ALDI IMPORT PRICE

March 2010 euro/box	Comparison	
	previous month	average for last 2 years
14.79	+ 11%	- 17%

Europe - Aldi import price (GlobalGap)



EUROPE — RETAIL PRICE

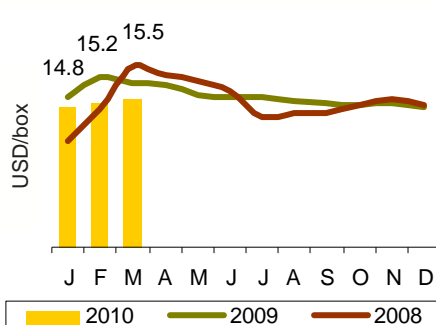
Country	March 2010		Comparaison	
	type	euro/kg	March 2009	average for last 3 years
France	normal	1.24	- 20%	- 20%
	special offer	1.09	- 18%	- 22%
Germany	normal	1.20	+ 6%	- 10%
	discount	1.02	+ 8%	- 13%
UK (£/kg)	packed	1.26	0%	+ 14%
	loose	1.01	- 6%	+ 21%
Spain	plátano	1.42	- 17%	- 22%
	banano	1.16	- 13%	- 21%

Photos © Régis Domergue

Banana

UNITED STATES

USA - Green price (spot)

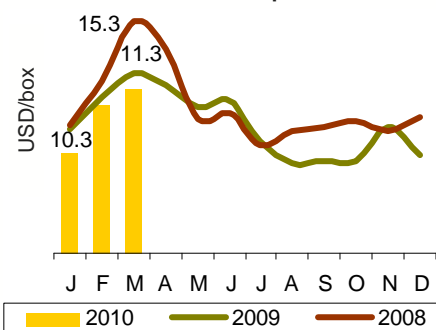


USA — IMPORT PRICE

March 2010 USD/box	Comparison	
	previous month	average for last 2 years
13.51	- 11%	- 26%

RUSSIA

Russia - Green price

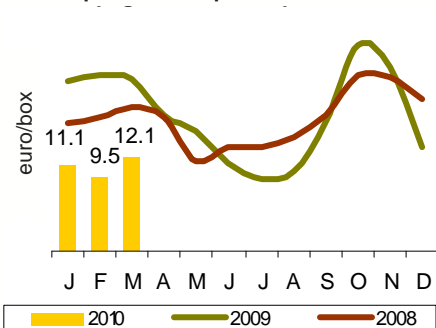


RUSSIA — IMPORT PRICE

March 2010 USD/box	Comparison	
	previous month	average for last 2 years
17.00	+ 11%	- 20%

CANARIES

Spain - Green price - Platano*



CANARIES — IMPORT PRICE*

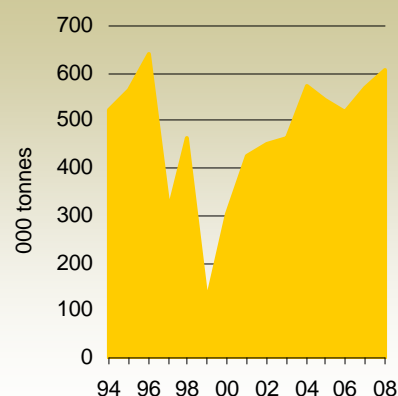
March 2010 euro/box	Comparison	
	previous month	average for last 2 years
12.11	+ 28%	- 40%

* 18.5 kg box equivalent

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■ Honduras: less Dole and more aid from the government. Standard Fruit (Dole) is reported to be on the point of closing 13 banana plantations, that is to say 28% of its Honduran production capacity. The closures affect 2 500 of the some 10 000 people employed in Honduras by the transnational. A serious difference in competitiveness with other countries such as Guatemala is mentioned as justification of the closures. Meanwhile, independent producers (14 million boxes forecast in 2010) have announced a funding plan totalling some USD 10.9 million that should improve productivity. Thanks to this plan and good weather conditions, yields should increase from 2 000 to 3 000 boxes per hectare in 2010. According to the Honduran customs, banana exports exceeded 600 000 tonnes in 2008 in comparison with 460 000 ten years previously. Honduras have favoured the North American market since the early 2000s, shipping nearly 400 000 tonnes

Banana - Honduras Exports



Source: national authorities

nes of bananas to this destination in 2009 and maintaining its position as the fifth largest supplier. Exports to the EU totalled less than 10 000 tonnes in 2009.

Sources: Reefer Trends, CIRAD



© Régis Domingue

EUROPE — IMPORTED VOLUMES — MARCH 2010

Source	Comparison		
	February 2010	March 2009	cumulated total 2010 compared to 2009
French West Indies	↘	+ 75%	+ 19%
Cameroon/Ghana	↗	+ 6%	+ 2%
Surinam	=↘	+ 64%	+ 51%
Canaries	↗	+ 16%	+ 18%
Dollar:		na	na
Ecuador	=↗	- 4%	- 9%
Colombia	↘	+ 6%	+ 2%
Costa Rica		na	na



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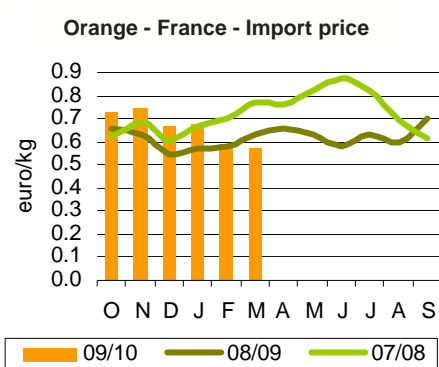
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Orange

March 2010

The orange market remained stable. Supply held at a slightly smaller level than normal. Nevertheless, the Spanish 'Valencia Late' season started somewhat early. Supplies of 'Navelate' from Spain were short, as were those of 'Maroc Late', as the decrease in production was even more marked than forecast. Demand continued to be slow, especially as the keeping quality of some batches was not satisfactory, as a result of the difficult weather conditions this season (cold, much rain, etc.). As a result, prices did not rise but nonetheless remained slightly higher than average. The Tunisian 'Maltese' market remained difficult as fruit quality was often delicate



■ Mediterranean 'Valencia Late' season disturbed by flooding. The weather was very wet in both Morocco and Spain in the first quarter of 2010. Already hard hit by gales and intermittent rain since January, these countries suffered serious flooding at the end of February. More than 1 000 hectares of citrus was flooded in Andalusia, causing production losses of 40 to 50% according to El día de Cordoba. The Spanish production shortfall of 'Valencia Late' resulting from the poor harvest in the Valencia Community area was worsened. However, professionals consider that the export potential should remain fairly good as fruit size is very satisfactory and substantially better than in 2009. Likewise, Morocco sustained serious losses in the Gharb and Souss regions, the main citrus growing areas. The 'Maroc Late' export potential was already very small and fell further from 120 000 to 110 000 tonnes in comparison with an average of about 80 000 tonnes in the last four years.

Sources: Reefer Trends, Valencia Fruits, ASPAM, El día de Cordoba, CIRAD

in export intentions in comparison with 2009, making this season the second largest ever in terms of available volumes. The potential should be slightly higher than the average of the last two years for oranges and especially easy peelers. In contrast, a slight lemon and grapefruit deficit is expected. Nevertheless, exchange rates play a key role in this forecast: the euro and the yen—used by the main export markets—have lost more than 20% against the rand. The trend for diversification to other destinations should continue. In 2009, the Middle East took more than 40% of the lemons shipped and more than 20% of the oranges.

Sources: Reefer Trends, Fresh Plaza, CIRAD



© Eric Inbert

■ South African citrus harvest forecast. South Africa should have a bumper citrus crop! The export forecast drafted by the CGA and published by Reefer Trends shows a some 5% increase

Citrus — South Africa — Exports								
Tonnes	2003	2004	2005	2006	2007	2008	2009	2010
Orange	854 544	737 146	746 963	765 245	933 913	971 483	868 500	942 000
Easy peelers	139 616	101 390	85 155	88 165	101 369	110 135	102 000	112 500
Grapefruit	169 035	184 451	251 345	157 792	214 620	186 400	213 000	189 000
Lemon	97 963	115 859	106 635	112 329	110 308	143 703	130 500	135 000
Total	1 261 158	1 138 846	1 190 098	1 123 531	1 360 210	1 411 721	1 314 000	1 378 500

Source: CGA

PRICE	Type	Average monthly price euro/box 15 kg	Comparison with average for last 2 years
	Dessert oranges	10.50	- 1%
	Juice oranges	11.10	na

VOLUMES	Type	Comparison	
		previous month	average for last 2 years
	Dessert oranges	↘	- 5%
	Juice oranges	↗	- 25%

VOLUMES	Varieties by source	Comparison		Observations	Cumulated total / cumulated average for last 2 years
		previous month	average for last 2 years		
	Navelate from Spain	⇒	- 8%	Peak season for 'Navelate'. Shipments smaller than average for reasons of deficit in export potential.	- 14%
	Maltese from Tunisia	↗	+ 5%	Volumes increased but remained smaller than average.	- 12%
	Valencia late from Spain	↗	+ 132 %	Early start to the season. Supply larger than average.	+ 132%
	Maroc late from Morocco	↗	- 82%	Beginning of the season. Very limited supply resulting from weak export potential after rain in the Souss and the Gharb.	- 82%

Easy peelers

March 2010

The Mediterranean easy peeler season ended under fairly good conditions. Supply was moderate but larger than average because of the increase in the areas planted with certain late varieties in a fair proportion of Mediterranean countries. Volumes of 'Ortanique' from Spain and Cyprus were moderate. In contrast, those of 'Nadorcott' from Spain and Morocco and 'Or' from Israel were fairly ample. Although demand was not particularly dynamic it matched supply. Prices remained high for quality produce but a proportion of shipments displayed poor keeping quality as a result of this year's difficult weather conditions.

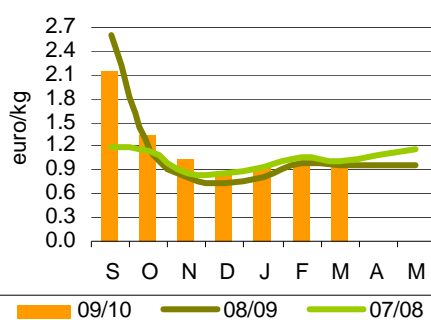
■ Concentrated lemon juice: prices high and should remain so. The combined weakness of the Spanish harvest and world stocks means that the concentrate market has remained very firm. The prices recorded at the beginning of March varied between EUR 3 000 and 3 500 per tonne according to source for 400 gpl; this is towards the top of the 2009 price range and more than double the prices observed in 2007 and 2008. The beginning of the season in Argentina, the world leader, should not affect the trend. The deficit caused by drought in the Tucuman Province, the main production region, seems to be confirmed and could be as much as 20 to 30%, depending on sources.

■ Spanish easy peelers: the range of varieties is still increasing. IVIA's varietal and rootstock plan is continuing to give results. Three new easy peeler varieties should be available at nurseries next year. 'Nero' and 'Clemenverd' are mutations of 'Nules' clementine. The first variety is slightly earlier than 'Nules' and contains very few seeds. 'Clemenverd' differs from its parent in its larger size and especially lateness that is more marked than that of 'Nules' and even 'Hernandina' (January). 'Murta' was bred by irradiating 'Murcott' and is a late variety that can be picked from March to April.

Source: Consejería de Agricultura de Valencia

Source: FoodNews

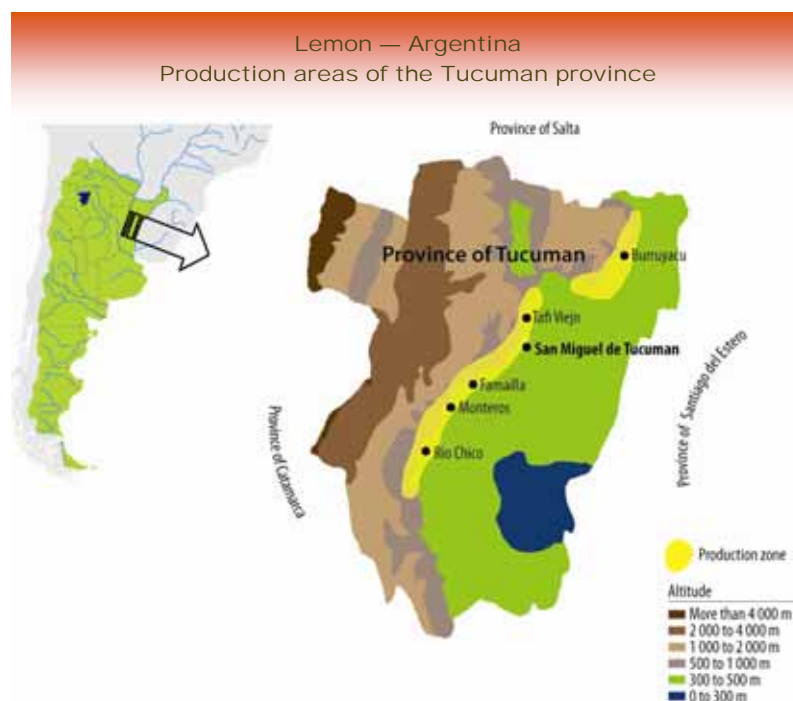
Easy peelers - France - Import price



PRICE	Variety	Average monthly price euro/kg	Comparison with average for last 2 years
	Late easy peelers	0.93	- 5%

VOLUMES	Variety	Comparison	
		previous month	average for last 2 years
VOLUMES	Late easy peelers	↓↓↓	+ 2%

VOLUMES	Varieties by source	Comparison		Observations	Cumulated total / cumulated average for last 2 years
		previous month	average for last 2 years		
	Easy peelers from Spain	↓↓↓	+ 11%	Supply slightly larger than average but very moderate, based mainly on 'Nadorcott', 'Ortanique' and the last 'Fortuna'.	- 9%
	Easy peelers from Morocco	↓↓↓	+ 25%	The last volumes of 'Nadorcott' were moderate but distinctly larger than average.	+ 58%

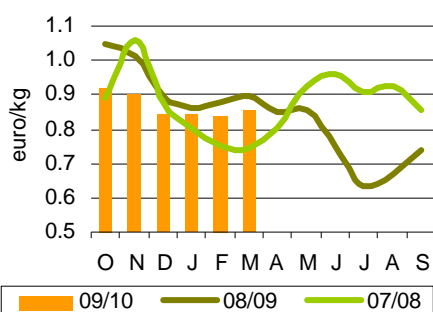


Grapefruit

March 2010

The market for Florida grapefruit remained stable. Supply remained smaller than average, especially as a falling euro against the dollar made European importers even more cautious and Florida exporters concentrated on the Japanese market (seasonal peak of consumption). However, prices did not increase as demand remained very sluggish. Pressure eased slightly on the Mediterranean grapefruit market. Supplies from Spain were limited as a result of production losses in Andalusia and exports from the Murcia region focused on the Eastern European markets. Arrivals in the EU from Turkey were also smaller. Although volumes were larger than average, prices of Israeli size 40/45 grapefruit firmed but remained low and stable for small fruits.

Grapefruit - France - Import price



PRICE	Type	Average monthly price euro/box 17 kg box eq.	Comparison with average for last 2 years
	Tropical type	16.00-16.50	+ 12%
	Mediterranean type	10.00-10.50	- 3%

VOLUMES	Type	Comparison	
		previous month	average for last 2 years
	Tropical type	=↘	- 26%
	Mediterranean type	=↗	+ 14%

VOLUMES	Source	Comparison		Observations	Cumulated total / cumulated average for last 2 years
		previous month	average for last 2 years		
	Florida	=↘	- 26%	Volumes exported to the EU stable and still smaller than average. Peak in shipments to Japan, with larger volumes than in the two preceding years.	- 29%
	Israel	↗	+ 8%	Average volumes except at the end of the month when arrivals were very substantial.	+ 7%
	Turkey	↘	+ 31%	Decrease in total exports and a more moderate share shipped to the EU.	+ 39%

Citrus — Peru — Exports

Tonnes	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Easy peel.	1 566	6 182	11 411	8 695	13 717	18 744	21 747	37 224	50 188	41 338
Orange	145	278	272	91	232	300	882	7 851	14 571	3 851
Grapefruit				1	20	20	23	131	28	206
Total	1 712	6 460	11 682	8 787	13 969	19 064	22 652	45 206	64 786	45 395

Source: Peruvian customs

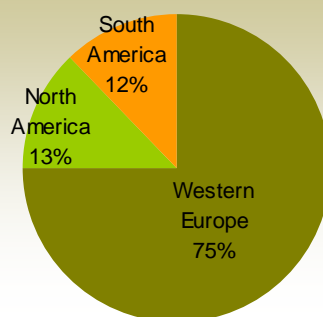
■ Peruvian citrus: export sector forecast to grow again in 2010. Exports of citrus from Peru should start to increase again in 2010. The Andina press agency forecasts a harvest some 4% larger after the hot weather in 2009 that limited the early easy peeler crop. Peru arrived on the international summer citrus market only recently but growth is rapid. Exports consist mainly of easy peelers ('Satsuma', 'Minneola' and increasing volumes of 'Nules' and 'Nadorcott') and oranges. The quantities shipped increased from less than 2 000 t in the early 2000s to nearly 65 000 t in 2008. The European Union and the United States import the greater part of the fruits but exporters are working on opening up new markets and hope to ship to China and Mexico in 2010. Peru is one of the leading



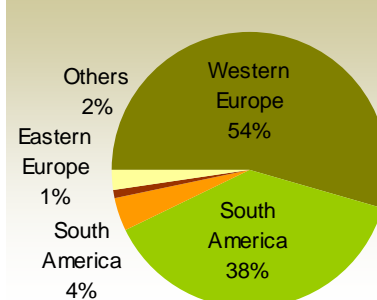
citrus producing countries in Andean America. Some 380 000 tonnes of oranges and 200 000 t of easy peelers are harvested each year, mainly on the central coast in the Lima, Ica and Junín regions, together with some 200 000 to 250 000 t of Mexican lime (*Citrus aurantifolia*, locally referred to as 'limon sutil') in the northern provinces Lambayeque and Piura.

Sources: Agence Andina, CIRAD

Orange - Peru - Exports by destinations in 2009



Easy peelers - Peru - Exports by destinations in 2009



Pineapple

March 2010

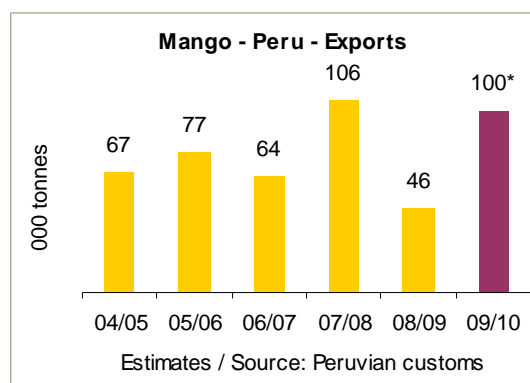
Given the promotion operations planned well in advance, the situation could have remained unchanged for the pineapple market in March. However, the late arrival of several ships resulted in occasional shortages that resulted for 'Sweet' in both increased demand and prices. However, although supply was smaller and demand fairly good, prices remained firm but not too high. Most pre-Easter sales were fluid with prices that were high but very rarely reached EUR 9.50 per box!

Supply of 'Smooth Cayenne' increased slightly before Easter. However, in contrast with the 'Sweet' market, sales were not more fluid even though prices increased a little.

The situation remained good on the air pineapple market as it was substantially under-supplied throughout the month. Indeed, very hot weather in production zones continued to affect the quantity supplied and the quality of fruits. However, prices were firmer in the last two weeks of the month. 'Sugarloaf' sales were good with prices rising gradually from EUR 1.90 to 2.05 per kg as the month went by.

'Victoria' pineapple supply remained very small—still affected by very hot weather in the Indian Ocean. The high prices thus resulted more from small supply than energetic demand or the high quality of the fruits available.

■ Peruvian mango exports: another record year. Peruvian mango exports probably reached 100 000 t in the 2009-10 season according to the press agency Andina. The figure is a strong increase in comparison with the 40 000 t shipped in 2008-09, when very bad weather reduced production considerably, and ap-



proached the historical record set in 2007-08. About 58% of volumes was shipped to the EU and 37% to the United States. The main exporters were Sunshine Export (10% of volumes), Camposol, FLP (6% each) and Empacadora de Frutos Tropicales (5%).

Sources: Andina, Peruvian customs

■ ACORBAT 2010. The 19th international meeting of ACORBAT (Association for Cooperation on Research and Comprehensive Musaceas Development) is to be held from 8 to 12 November in Medellín (Colombia). The event is held every two years in a city in Latin America or the Caribbean and is aimed at providing information about technical, scientific and economic progress in the world of Musaceae. There are lectures, workshops, poster sessions and field visits. More than a thousand researchers, scientists, growers, agriculturalists and agricultural technicians from the 40 ACORBAT member countries are expected to attend the event.



<http://www.acorbat2010.com/>

PINEAPPLE — IMPORT PRICE

Weeks 9 to 12	Min	Max
By air (euro/kg)		
Smooth Cayenne	1.70	2.00
Victoria	3.50	4.50
By sea (euro/box)		
Smooth Cayenne	5.50	8.00
Sweet	7.00	10.00

PINEAPPLE — IMPORT PRICE IN FRANCE — MAIN ORIGINS

Weeks 2010		9	10	11	12
By air (euro/kg)					
Smooth Cayenne	Benin	1.70-1.90	1.80-1.90	1.90	1.90
	Cameroon	1.75-1.90	1.80-1.90	1.90-2.00	1.90-2.00
	Ghana	1.70-1.85	1.75-1.85	1.80-1.90	1.80-1.90
Victoria	Réunion	4.40-4.50	4.00-4.50	4.00-4.50	4.00-4.50
	Mauritius	3.50-4.00	4.00-4.50	4.00-4.50	4.00-4.50
	South Africa	-	3.80-4.00	-	-
By sea (euro/box)					
Smooth Cayenne	Côte d'Ivoire	6.00-7.00	6.00-7.00	5.50-8.00	5.50-8.00
Sweet	Côte d'Ivoire	7.00-9.00	7.00-9.00	7.00-9.00	7.00-10.00
	Cameroon	7.00-9.00	7.00-9.00	7.00-9.00	7.00-10.00
	Ghana	7.00-9.00	7.00-9.00	7.00-9.00	7.00-10.00
	Costa Rica	7.00-8.50	7.50-9.00	7.50-9.00	7.50-9.00

Photos © Régis Domergue

Mango

March 2010

March was marked by the gradually dwindling of shipments from Peru as the season approached its end. Meanwhile, shipments from Brazil increased, making it the leading supplier of the European market in the second half of the month. Demand accelerated as Easter approached and supply became more balanced, favouring a distinct recovery of prices that rose above EUR 4.00 per box once again before rising considerably and stabilising at between EUR 5.00 and 6.00. The absence of small fruits from Peru resulted in a firming of the prices of sizes 9/10 and 12 in particular. The decrease in Peruvian deliveries was partially compensated by an increase in shipments from Brazil; these consisted of smaller fruits and benefited from the trend in demand, fetching particularly high prices. The switch from Peru to Brazil as the leading supplier of the European market generated new compartmentalisation of varieties. 'Tommy Atkins' from Brazil were sold mainly in northern Europe while 'Kent' from Peru was centred in the other countries.

The West African season began modestly at the end of the month. The first 'Amélie' from Côte d'Ivoire made the diversification of varieties possible at Easter and were sold mainly in France via preset schedules established with supermarket chains.

The air mango market remained complex, with high prices. However, it was difficult to sell Peruvian fruits at more than EUR 4.00 per kg. Although demand was healthy, price ranges remained broad because many batches were very ripe or affected by fungi. The varietal diversification contributed by West African mangoes also disturbed the market. In addition to 'Amélie', Mali shipped small volumes of Irwin, Haden, Valencia, Smith, etc. whose colour and ripeness were often inadequate. Supply was completed by a few batches of 'Ataulfo' from Mexico and of 'Namdokmai' from Thailand.

Litchi

March 2010

The Indian Ocean litchi export seasons ended in March. The extension of the Madagascar season concerned only produce that had been stored. These batches were shifted with difficulty as fruit quality was very uneven. Systematic resorting did not succeed in obtaining satisfactory produce. As a result, prices were fixed more by buyers than by sellers. The worsening quality of Madagascar litchis resulted in large quantities of sorting rejects and this further affected average selling prices. The few batches still available on the other European markets were sold at 'open' prices depending on the quality of the fruits.

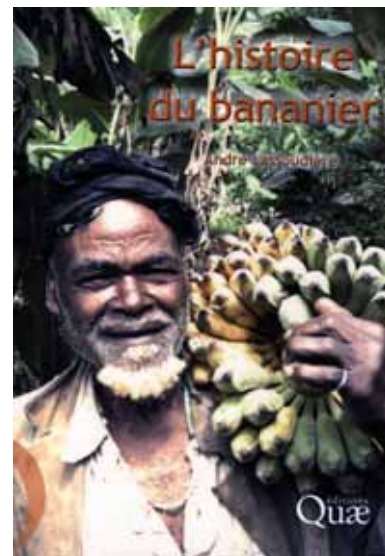
A few batches from Australia were available at the beginning of the month and sold with difficulty at around EUR 11.00 per kg. High prices and lack of interest by retailers resulted in the halting of deliveries, especially as the quality of these fruits shipped by air worsened rapidly.

Sales of the last batches of 'Red MacLean' from South Africa were uneven from one market to another in this end-of-season atmosphere. In France, where there is little enthusiasm for the variety, prices were EUR 0.65-1.25 per kg until Week 11 when the fruit disappeared from the range of produce available. Prices were better on the Belgian and Dutch markets at between EUR 2.00 and 2.25 per kg. Sales on these markets ended in mid-month.

Litchi was totally absent in the second half of the month. Deliveries from Thailand should start in April.

■ 'L'histoire du bananier'. This is the second work by André Lassoudière on 'this giant herb often considered as a tree'. The author, an agriculturalist at CIRAD from 1967 to 2008 and passionate about the plant to which he devoted his entire career, has written a synthesis of very varied historical data and the knowledge he gained in the field. The book contains hypotheses about varietal diversification and the spread of the crop from South-East Asia, a review of the various uses of the fruit and other parts of the plant, a panorama of the evolution of production for the international market with mention of the history of the large fruit companies and the technical improvements used for the conservation and transport of bananas, etc. Illustrated with numerous old drawings, photos and coloured maps, it is intended for sector professionals and everyone interested in the history and genetics of plants.

'L'histoire du bananier' (in French), by André Lassoudière, Editions Quae, 352 pages, EUR 40, ISBN: 978-2-7592-0618-6



MANGO — ARRIVAL ESTIMATES
Tonnes

Weeks 2010	9	10	11	12	13
By air					
Peru	90	90	120	120	100
Brazil	-	-	-	-	10
Mali	4	4	10	15	50
Burkina Faso	5	12	15	20	20
Côte d'Ivoire	-	-	-	-	20
By sea					
Peru	3 340	1 980	2 260	1 670	1 340
Brazil	440	1 060	1 360	2 570	2 860
Mali	-	-	-	22	44
Burkina Faso	-	-	-	22	88
Côte d'Ivoire	-	-	-	44	88

MANGO — IMPORT PRICE ON THE FRENCH MARKET — Euro

Weeks 2010		9	10	11	12	13	March 2010 average	March 2009 average
By air (kg)								
Peru	Kent	3.50-4.00	3.80-4.20	3.50-4.50	3.50-4.50	3.50-4.50	3.55-4.35	4.30-4.90
Mali	Amélie	3.00-3.50	2.80-3.00	2.50-2.60	2.50-2.60	2.40-2.50	2.65-2.85	2.80-3.00
Mali	Valencia	-	-	-	3.00	3.50-3.80	3.25-3.65	3.50
Burkina Faso	Amélie	-	-	2.40-2.50	2.30-2.40	2.40	2.35-2.40	2.85-3.00
By sea (box)								
Peru	Kent	4.00-5.00	5.00-6.00	6.00-6.50	5.50-6.50	5.00-6.50	5.10-6.10	4.60-5.85
Brazil	Tommy Atkins	-	-	-	5.00-6.00	4.00-6.00	4.50-6.00	4.85-5.50
Côte d'Ivoire	Amélie	-	-	-	-	4.50-5.50	4.50-5.50	5.00-6.00

Sea freight

March 2010

For the specialised reefer business it is sad but true to report that had it not been for the Chilean earthquake on 27 February there would have been no mini-peak to what has been a second successive desperately disappointing February and March. At 58c/cbft the average TCE return for the first three months of 2010 compares to 70c/cbft for the corresponding period in 2009, 92c/cbft in 2008 and 109c/cbft in 2007! And even the 58c/cbft is somewhat artificial: the number of vessels fixed on TCE yields of over 100c/cbft can be counted on the fingers of one hand. In this context it would come as no surprise to learn that owners are planning an extensive and prolonged lay-up for their less efficient units, especially with bunker costs likely to trend northwards. There is a precedent: the lines have had to mothball 10%-plus of the containership fleet to restrict capacity supply in an effort to underpin a rate increase. It is instructive that despite the promise of a peak season neither of the relatively modern, fuel-efficient, Restis-controlled Louis Pasteur or Pierre Doux was tempted to break lay-up in Piraeus. There is no compelling reason for either unit to trade for another 9-10 months. With an estimated cost of 10-15c/cbft to lay-up compared to an expense of 55-60c/cbft to keep a vessel operational the decision is a no-brainer if the H2 TCE yields for the past decade are taken into consideration. Only in 2006 did the average return climb above 60c/cbft between July and December, and that was largely due to a collision of unforeseeable circumstances towards the tail end of that year. While the trading environment has been difficult in the first quarter of this year there is not enough historical evidence to support a theory that demand will improve sufficiently over the course of the next three quarters to justify the commercial risk of continuing to trade. That is not to say that it will not happen: if it does, those operators obliged to continue tramping vessels will be more than thankful.

■ Venice attempting to re-launch port activities. A new, modern fruit terminal will soon be completed in Venice-Marghera port. The aim is to develop trade in fresh produce from the port of Alexandria in Egypt and Tartus in Syria, with which

agreements were concluded recently. A weekly ro-ro (freight) and ro-pax (freight + passengers) service will be set up with these two destinations. The cold store with capacity for 2 000 palletes should be operational in June this year on a 13 000-m² concession.

Fruits — Syria EU-27 imports			
Tonnes	2007	2008	2009
Pistachio	326	139	481
Almond	1 546	650	195
Cherry	66	95	68
Lemon	677	2 689	43
Orange	40	350	1
Grapefruit	363	135	16
Others	128	238	128

Source: Eurostat

Source: GreenMed EU

Fruits — Egypt — EU-27 imports			
Tonnes	2007	2008	2009
Orange	106 835	110 304	133 991
Grapes	38 619	39 973	49 095
Strawberry	6 728	6 761	13 251
Watermelon	5 504	3 743	4 023
Peach/nectarine	2 626	1 644	2 211
Easy peelers	2 241	1 849	1 429
Melon	1 755	1 570	1 276
Lemon	2 230	2 748	1 122
Date	632	498	390
Mango	259	364	322
Papaya	705	342	198
Grapefruit	209	149	115
Apricot	8	2	12
Others	26	12	6

Source: Eurostat

■ The 2010 annual meeting of fruit and vegetable importers and shippers will be held in Paris on 15 June. On the menu this year: what buyers look for, credit insurance, French seaports, cost and margin management. For detailed information and enrolment:

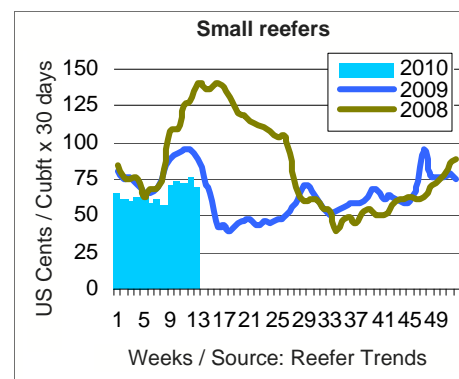
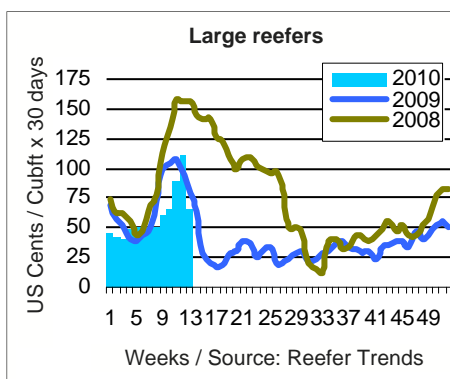


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MONTHLY SPOT AVERAGE

US\$/cubic foot x 30 days	Large reefers	Small reefers
March 2010	81	69
March 2009	95	94
March 2008	146	126



Counter-season melon

Fierce competition

The market is still changing. However, 2009 was a very difficult year for most production sources as a result of the continued effects of the economic downturn together with particularly unfavourable weather conditions. But these tensions nevertheless strengthened the main de-seasonalisation trends seen in recent years and the more restrained development of very competitive sources such as Senegal and Morocco that are achieving more significant market penetration but still have certain difficulties as regards expansion.

Provisional figures from European customs show that extra-community melon imports fell to 324 000 t in 2009, a 10% decrease in comparison with 2008. Volumes seem to have stagnated at around 350 000 t since 2006. The decrease is caused mainly by the decrease in the volumes shipped from Latin America. Thus, although Brazil is still the leading supplier of the EU market, it seems to have suffered a 14% decrease in exports to Europe in comparison with 2008 (166 800 t). The decrease in volumes from Costa Rica was some 16%, putting it in third position among extra-European suppliers (42 800 t). Imports from Panama fell by 35% (13 100 t). Only Honduran exports continued to increase, reaching 23 100 t, that is to say 33% more than in 2008 and three times as much as five years ago. Shipments from Morocco also marked time in 2009 at 55 300 t (-2%), in particular because of poor weather, while Israeli potential stabilised (4 500 t) and imports from Senegal increased again, reaching 3 300 t (+29%).

Latin American production being restructured

Latin American production sources have been hard-hit by the effects of the economic downturn. The 2008-09 season was particularly disastrous in **Brazil** (economic crisis, unfavourable exchange rate), and returns for producers were very inadequate, given the increase in production

costs. Exports are reported not to have exceeded 183 912 t in the 2009 calendar year, a 13% decrease (source SECEX, processed by IBRAF), with 166 800 t shipped to the European market (63 800 t to the Netherlands, 54 266 to the United Kingdom and 46 840 t to Spain).

These economic difficulties have left traces, causing structural changes and the concentration of operators. The main unit now represents nearly 65% of Brazilian melon and watermelon production, with export potential of 100 000 t. This change has nevertheless made it possible to limit the decrease in potential. Exports in January and February are reported to have reached 42 900 t, that is to say 4.8% more than in 2009. At the beginning of the year, IBRAF was even counting on a return of exports to close to the level of 2008 (211 789 t).

These difficulties also obliged operators to adjust their strategy. Indeed, although they still focus on the British market—the destination for 50% of shipments—they work increasingly with supermarket chains. They

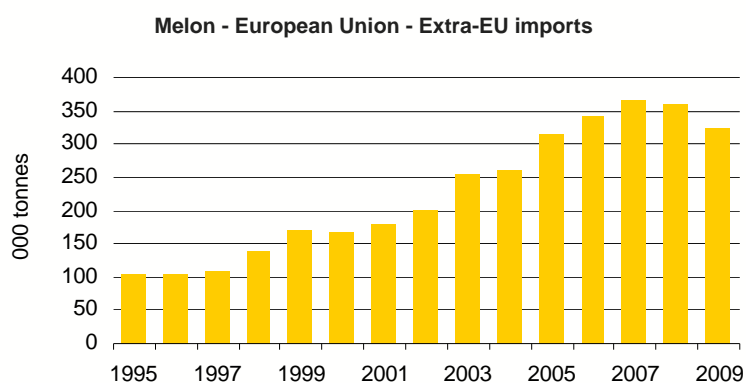


Photos © Pauline Feschet



have also chosen to diversify their customer portfolios, with closer targeting of the Spanish market, where demand is increasing. The areas planted with 'Piel de Sapo' melon have thus increased considerably (+ 30% for some operators).

Likewise, **Costa Rica** was strongly affected by the downturn in 2008, leading to a 35% decrease in areas. The total fell from 10 000 ha in 2008 to 6 500 ha in 2009, resulting in production that is now less than 200 000 t. However, producers count on the new varieties to maintain their sales, especially on markets such as Germany. Europe is still the main destination since the North American markets are less attractive for reasons of tax and a less favourable exchange rate than that of the euro. Furthermore, the opening of the American market cannot be envisaged for the moment as USDA requirements are currently too strict and too expensive.



Source: European customs

Morocco in search of second wind

2009 was a difficult year for Moroccan operators because of the bad weather that affected the country, except in the Dakhla zone. Rain and cold delayed the Marrakesh, Agadir and Kenitra production calendars by a fortnight, resulting in fairly substantial losses (smaller yields); this was aggravated by very hot weather (Chergui) at the end of the season. Exports thus marked time in 2009 (55 300 t). However, planted areas continued to increase steadily in the early zone of Dakhla (50 to 100 ha per year) but production of Charentais melon is structurally stable or even decreasing in the other production zones and especially near Marrakesh, with some operators withdrawing from the crop.

Likewise, production will be smaller this year even though the season started very early, with the first fruits sold in mid-February in the Dakhla region; this was two weeks earlier than usual. Bad weather (rain and cold) resulted in a conjunctural decrease on planted areas, especially in the Marrakesh zone where it was not possible to plant a full complement of melon and where production was very small, especially in tunnel greenhouses, resulting in a dip in production at the beginning of April. However, the delay at the beginning of the season seemed to be made up gradually at the beginning of April, promising a peak in production in mid-May.

Planted areas have now reached some 6 000 to 8 000 ha of 'Canari' yellow melon, 3 000 ha of 'Galia', a little less than 2 000 ha of Charentais type and only 250 ha of 'Piel de Sapo'. Most Charentais production is green, while yellow fruits are grown in 250 ha, a little more than 10% of the area. Indeed, the technical progress and improved quality recently achieved in green Charentais melons have speeded up retail penetration by these varieties in the last two years. Thus, even though the green Charentais varieties do not have the aroma and characteristics of the yellow type and although some operators still favour high produce quality, economic logic is resulting in shrinking plantations of yellow fruits, even by specialists. Likewise, the area under 'Galia' is maintained with difficulty and some growers are now opting for 'Canari'. Plantations of 'Piel de Sapo' could increase for export (Spain) and also for the domestic market as soon as technical progress is such as to allow the growing of a variety well-suited to soil and climate conditions. Nevertheless, although this production source has attractive production costs and logistic advantages, the marketing period is very short as



Photos © Pauline Feschet

consumption of melon is strongly linked to weather conditions. Thus, whereas shipments from the West Indies were very limited (because of ash falling after the eruption of the Montserrat volcano), the earliness (mid-February) of the crop this year did not favour market penetration by Moroccan melon as the weather was particularly wintry (snow and frost). Similarly, when production is too late, as was the case in 2009, the quality of produce is often affected by heat, especially at the end of the season.

Development of Senegalese exports tempered by logistic limits

Melon growing is still spreading in Senegal within the framework of agricultural development projects. Climatic conditions are fa-

vourable, as are logistic facilities with two maritime links. However, development now seems to concern 'Piel de Sapo' (about 200 ha). Areas are still increasing with the arrival in southern Senegal of Spanish operators who wish to start their production calendar earlier. However, it seems that the area under smooth yellow Charentais fruits is decreasing slightly (less than 200 ha). This is explained by the difficulty of growing these fruits in the northern part of the country where the weather is very changeable and where the crop can be damaged by sandstorms. Production is also limited by logistics as even though it takes only five days to reach Port Vendres, available freight capacity is still too small to handle large-scale fluctuations in the crop. Nevertheless, this production source with very low production costs should remain present on the market as high-quality produce can be supplied at attractive prices from December to April, especially as melon is part of a broader diversification policy including tomato, strawberry, etc.

Guadeloupe melon has a high profile

The development of these two production zones has resulted in a decrease in areas under melon in the French West Indies in the last two years as a number of operators have left. However, in less than 30 years melon has become the third-largest crop in the islands after banana and sugar cane,

Melon — European Union — Extra-EU Imports

Tonnes	2007	2008	2009*	Variation 2009/2008
Brazil	192 303	193 025	166 794	-14%
Morocco	47 101	56 545	55 314	-2%
Costa Rica	68 426	50 969	42 814	-16%
Honduras	13 726	17 380	23 094	33%
Panama	18 225	20 128	13 131	-35%
Turkey	6 718	7 841	6 812	-13%
Israel	7 850	4 073	4 519	11%
Senegal	2 142	2 571	3 319	29%
Total	366 102	361 920	324 040	-10%

* provisional / Source: Eurostat

with nearly 480 ha (360 ha in 2000, 276 ha in 1990 and only 60 ha in 1981). The sector provides jobs for nearly 500 people and annual production totals some 7 000 to 8 000 t, with nearly 5 000 t shipped—mainly to metropolitan France.

But competition is now too fierce and it is beginning impossible for West Indian melons—shipped by air—to compete in terms of price with fruits from sources with much cheaper labour and logistics.



Thus, after a serious crisis in 2008 when the European market was saturated, professionals in Guadeloupe reacted by resurrecting the Association interprofessionnelle du melon de Guadeloupe (AIMG). The aim in particular was to handle the application for a 'melon de Guadeloupe' Protected Geographical Indication (PGI); this was approved by the INAO on 1 October 2009 with a view to registration by the European Commission.

This PGI is for 'yellow Charentais' melon harvested from November to June only in six communes in part of Grande Terre and the whole of the island Marie Galante. The soils in this production zone are suited to the production of high-quality melons and the climatic conditions are dry for part of the year, favouring ripening and giving Guadeloupe melon a very sweet taste, much aroma and perfume and soft flesh that keeps well. Potential has been a little smaller this season (2009-10) for reasons of rain and the eruption of the Soufrière volcano in Montserrat that caused a temporary halt in shipments at the beginning of the year.

In addition, it is difficult to maintain melon exports from Israel but a slight increase was seen again in 2009 with a total of 4 500 t (+ 11% in comparison with 2008). However, the figure is well below the figures for exports to the EU market two or three years ago as the fruits are running up against competition from Morocco ■

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A report by
Denis Loeillet

Banana

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The 2009 banana year was one of transition in every way. On the market, the Central American supply deficit resulted in a fall in consumption of between 6 and 12% in the main import zones. The end of the year was marked by supply returning normal and a very distinct worsening of the situation. At the negotiating table, the Geneva agreement of 15 December 2009 and the probable agreements with the free trade zones (Andean Pact, CACM and Mercosur) mark the beginning of the final dismantling of the common market organisation of banana, with a customs tariff of EUR75 per tonne in 2020 at the latest. The most fragile producers can only beg for extra cash within the framework of support programmes. We really do seem to have returned to square one this time.

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The banana market

Reasonably pessimistic



Physicists of all kinds are in search of the famous missing particle and theories about dark energy and black matter abound. They all attempt—unsuccessfully—to explain the origin and fate of the universe. At a more trivial scale, the banana sector also has its mystery that many people think they can solve. This is the finding of the missing link between the level of the European customs tariff and market supply.

For years, various schools of thought have competed with each other and each has put forwards a conjecture. There are those for whom the customs tariff (for lack of a quota system) should be as high as possible to restrict the volumes released and hence maintain prices. Others, waving econometric calculations, call for a very low level or even no dues at all; holding that this would conserve the balance of forces using a basic principle: market forces are wise enough to settle everything. According to Joseph Stiglitz, winner of the Nobel Prize for Economics, the market does not possess the self-regulating abilities attributed to it by neoclassical economic theory. Supply and demand never balance each other spontaneously, even with hypotheses of pure and perfect competition, and state interventions are generally much more effective than a market left to itself. In all cases, the sheep-like and irrational behaviour of operators means that, for lack of a quota, the market is governed directly by world supply and imbalances are inevitable without strong market regulation by volumes.

The market is too stupid

2009 will remain a great source of inspiration for 'banana market physicists'. It gave an advantage to those who consider that the world supply level is the key to the functioning of markets. Indeed, the world's two main markets displayed strong decreases in volumes (the USA market was 12% down and EU-27 was 6% down) as world supply was affected by the loss of a proportion of Costa Rican production. The serious floods

that hit Central America at the end of 2008 caused market under-supply. Ecuador and Colombia only made up part of their deficits. It can be understood that when supplies are decreasing customs dues have no effect on market balances. Did prices rocket everywhere in Europe, in the United States and in related markets such as Russia and the Mediterranean basin as one might have expected? Examination of average annual prices hardly revealed a price explosion. The level seen in 2009 was similar to that of the two previous years at EUR 0.67 per kg at import stage in France (**Fruitrop 172**, January 2010). Analysis of half-years is more interesting, confirming the theory that world supply models the market. Indeed, during the first half of the year when Costa Rica and many other Central American countries were absent from the market, quay prices in Europe and elsewhere shot up to EUR 0.78 per kg. In the second half of the year, the scheduled return of the suppliers that had had problems, fairly sluggish consumption in many European countries including Germany and pressure from supermarket chains forced prices down (EUR 0.65 per kg). But the depressive effects of renewed production in Central America were observed right at the end of 2009 and at the beginning of 2010. Here, the first quarter of 2010 is very revealing as regards the relation between world supply and import prices in Europe. It can be summarised in two words: direct and depressing.

Bananas are not goods

In 2006, the EU switched from a quota system to a tariff-only system. The level of customs dues, currently EUR 148 per tonne after a previous EUR 176 is the focus of discussion. Interpretations obviously differ. Some people consider that it does not have a regulating effect on the market; whatever the level, if world supply displays a surplus, the produce will reach the market. And horrors! Regulation by volume is essential because, like other produce, bananas are perishable, very sensitive to unfavourable weather events, are for mass consumption, are a cash crop, etc. Others think that the tariff is currently too low to dissuade the same operators and, in addition, since the application of a tariff-only system in 2006, world



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supply has not been normal and the protective effect of a tariff at EUR 176 per tonne was not tested.

Finally, the most optimistic commentators think that market self-regulation is more effective. We can remind them of a recent episode in banana history—the disastrous spring of 2006. At that time, doubtless drunk on the possibility of being able to export bananas to the EU with no volume constraints, very ambitious operators on both sides of the Atlantic caused deep disturbance to the European market for several months because they thought that they could gain market shares. The customs tariff had no regulating effect. Since this painful experience, nobody can say that he has verified, for even an instant, the postulate that the market is regulated by customs dues'.

The worst is yet to come

In short, with or without customs dues, the market is like an aeroplane with no pilot. This leads to fearing the worst for 2010. A banana apocalypse has often been prophesied—in 1993 when the common market organisation of ba-

nana was set up, during enlargement of the EU to 15 member-states and then 25 and 27, and in 2006 at the switch to the tariff-only system. As I mentioned, 2006 was a very difficult period to weather but mainly because of actions by just a few people, essentially one producer-exporter and one importer. The conditions are very difficult today because if it is considered that the supply level is decisive the peril is very great.

Indeed, Costa Rica has returned to its very high production levels and even announced (**FruiTrop 175**, February 2010, page 5) record export forecasts with 110 million boxes exported in comparison with an average of 108 million from 2006 to 2008. The trends are excellent in Colombia, which finished the year with exports of 97 million boxes. Finally, after breaking export records in 2009 with 271 million boxes (+6%), Ecuador has announced improved productivity in the weeks and months to come. Africa has not suffered from very many strong gales and the Caribbean plantations have not sustained much damage from hurricanes and tropical storms.

The economic results and above all the market profile at the beginning of 2010 make the alarmist hypothesis more credible. The French average import price is EUR 0.64 per kg, that is to say 21% lower than last

Common market organisation of banana or how to dance on a grave

At the end of 2009 we announced the scheduled execution of the common market organisation of banana (CMOB), floored by the WTO on 15 December. A gaggle of Latin American banana exporting states helped by the European Commission decided on the programme for finishing off this 16-year-old trade organisation. The removal of the quota principle in 2006 opened the way to a tariff-only system. On 1 January 2006, supplier countries were classified as belonging to the ACP group, benefiting from exemption from dues, or the MFN (most-favoured nation) category, or dollar banana sources, that had to pay customs dues of EUR 176 per tonne. The Geneva agreement planned the lowering of the tariff to EUR 114 per tonne in 2017 or 2019. According to econometric models, this decrease will not depress markets but rebalance forces to the benefit of dollar sources against ACP sources, and especially African banana exporting countries, ideal targets pictured as bogeymen with a thirst for conquest, ready to pour masses of bananas into Europe, scaring other sources away from this juicy market.

Spain shuts out France

The balance is markedly negative just a single quarter after the agreement. The world market is depressed after the return to normal of world supplies after the very serious damage sustained by South American banana plantations at the end of 2008. Quay prices have hit the bottom. It is difficult for producer prices to reach the minimums set. And many people

are already forecasting a disastrous year like that suffered by the market in 2004. It is obviously too early for these pessimistic forecasts to be confirmed and the factors for evaluating and understanding the market are intertwined: very slow economic recovery, freezing weather, competition from other fruits, etc. We could at least all agree about the currently delicate world situation. Nothing doing. The MFNs want to put the boot in. Whatever the consequences. The ink of the signatures on the multilateral agreement is hardly dry and Spain, holding European presidency for the first half of 2010, has put the banana question back on the table—in bilateral discussions this time. France is the last member-state to be in favour of customs dues, at least at the level of the Geneva agreement, and is totally isolated in this negotiation. Spain is playing the compromise game as hard as it can, presenting all the European states concessions in various sectors but progress in others such as the car industry for Germany, olive oil for Greece and dairy products for Ireland. Even delaying the setting up of these agreements seems out of range for opponents. At the end of March 2010, the ACP-EU Joint Parliamentary Assembly did threaten—in diplomatic terms—not to ratify last December's Geneva agreement. The chances of mobilising the European parliament against the implementation of the Geneva agreement are very small. But this could be the first question about which the new authority could give its opinion. What is the use of new prerogatives if the positions of the European Council and Commission are followed meekly in such a symbolic dossier.

A 25-year round trip

What are bananas in all this? Just a bargaining counter so that Spain can sign the agreements with the Andean Pact countries (Colombia and Peru but not Ecuador for the mo-

year, making the first quarter of 2010 one of the worst of the decade. The German import price displayed the same trend (Aldi reference) in the first quarter, and you have to go back to the *annus horribilis* 2004 to find an import price as low as EUR 0.70 per kg. The major international operators are beginning to be frightened. For example, Chiquita issued a release in which it expressed concern about price movements in Europe during the first quarter. At least shareholders will have been warned. A new stage was reached in early April 2010 with German operators weighed down with dollar bananas and re-shipping them to the Russian market in large quantities.

Less spot trading, more contracts

Pessimism about imports is contaminating exports and production. Whereas spot bananas from Ecuador still changed hands at USD 12 per box in January (ex-Guayaquil), the price reached USD 5.40 at the end of March—not a single cent more than the Ecuadorian *precio minimo*. Some Ecuadorian growers have also signed fixed price contracts for the coming months, thus moving from an approach con-

sisting of acceptable risk-taking in negotiating the selling price week after week to the need for a guaranteed price because market uncertainty is increasing. This had not happened for years and is doubtless a warning sign of difficult days ahead for the markets ■

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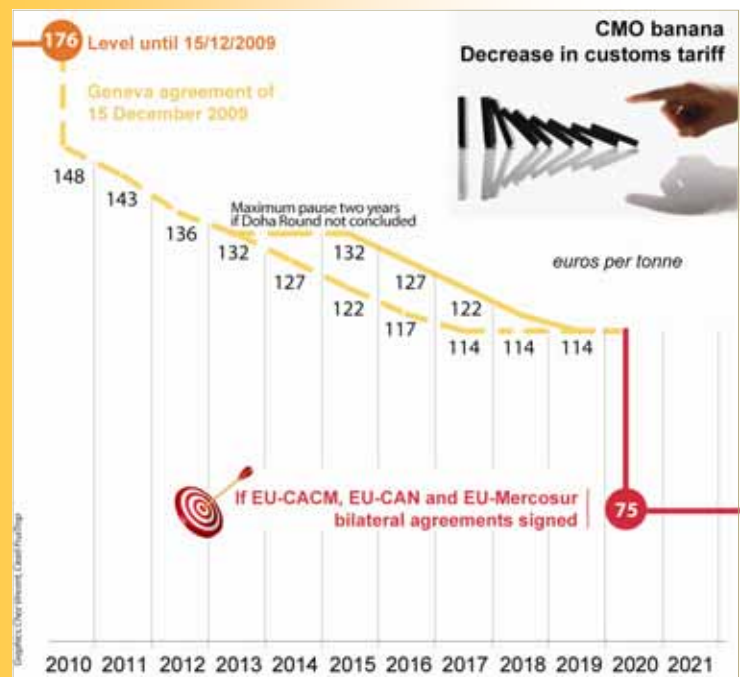
ment) and the Central American Common Market (CACM) before the summer of this year (May has been mentioned). The result of this non-negotiation will be a further decrease in customs dues to reach a highly symbolic EUR 75 per tonne in 2020. We shall have travelled a full circle as this was the tariff applied to dollar bananas in 1995, although at the time the dollar banana quota was 2 553 000 tonnes, strictly distributed about a few supplier countries. Twenty-five years to reach this result is perhaps not much at the geological scale but one might wonder whether it is still too long at the scale of globalisation handled like a forced march.

So what remains to be done? All the solutions except one differ according to production source, with the common one being increased competitiveness. Such gains can be found within farming systems (improved productivity), in segmentation or differentiation, also applied to production methods and sector governance. As regards support from the European authorities, European and ACP production require accompaniment to make such progress. This is the least that can be done when the rules are changed during the game.

ACP producers have been awarded EUR 200 million to strengthen the competitiveness of producers. This is to be awarded to the ten leading banana exports during the period 2010-2013: Belize, Cameroon, Côte d'Ivoire, Dominica, the Dominican Republic, Ghana, Jamaica, St Lucia, St Vincent and Surinam. Allocation of aid will be based on three main criteria: the volume of bananas released on the EU market, the importance of banana exports to the EU in the country's economy and the level of development measured by the United Nations human development index (HDI). The European Commission considers that for European producers the POSEI allocation (about EUR 280 million per year from 2007) was calculated taking into account the probable decrease in customs dues. It is maintaining its position for the moment,

leaving Spanish and French growers for example to turn to their national authorities.

If Europe has used bananas as a bargaining counter to conclude trade agreements that benefit the community, it should compensate the difficulties that these agreements engender for the most fragile suppliers. A modern version of 'an eye for an eye and a tooth for a tooth' would require a fair balance between crime and punishment.



Banana — EU-27 imports — 2009

000 tonnes	AT	BE-LU	BG	CY	CZ	DE	DK	EE	ES	FI	FR	UK	EL	HU	IE	IT	LT	LV	MT	NL	PL	PT	RO	SE	SI	SK	EU-27	
Total Extra EU, including total NPFs, incl.	1 973	1 278 825	14 817	32	2 482	843 363	14 670	497	112 933	297	275 785	903 846	27 728	0	37 761	532 201	3 439	0	116	98 464	34 371	113 005	60 022	87 066	69 872	41	4 513 605	
Ecuador	118	265 430	14 776	32	2 482	839 122	14 670	497	102 175	297	2 558	478 869	27 728	0	19 841	531 896	3 439	0	116	83 992	34 371	112 965	60 022	86 994	69 872	41	3 555 462	
Colombia	1 839	503 723	0	18	0	260 819	5 694	0	33 388	0	710	216 796	819	0	641	129 362	0	0	98	4 781	0	33 562	3 136	0	10 553	0	1 205 938	
Costa Rica	16	242 189	0	0	1 624	111 266	300	0	16 780	73	0	180 669	2 123	0	16 808	82 722	221	0	0	10 504	392	43 365	836	42 878	122	0	752 891	
Panama	0	4 342	0	0	0	123 715	0	0	0	0	0	2 878	1 119	0	0	7 906	0	0	0	536	192	633	976	41 158	0	0	183 455	
Brazil	0	15 988	0	0	0	6 305	0	0	1 938	0	754	21 579	0	0	0	8 745	0	0	0	336	0	358	0	0	0	0	56 002	
Peru	0	27 831	0	0	0	5 596	0	0	0	0	1 473	0	0	0	477	0	0	0	0	8 858	0	0	0	0	0	0	44 236	
Mexico	0	1 365	0	0	0	1 119	0	0	5 488	0	501	1 725	541	0	294	9 106	0	0	0	1 494	0	242	0	0	0	0	21 874	
Honduras	0	5 689	0	0	0	1 442	0	0	0	0	0	636	0	0	357	0	0	0	0	91	0	0	301	0	0	0	8 516	
Guatemala	0	137	0	0	0	0	0	0	0	0	0	1 600	0	0	240	0	0	0	0	0	0	0	1 696	0	0	0	3 672	
United States	0	0	0	0	0	0	0	0	0	0	3	211	7	0	0	0	0	0	0	0	0	0	0	0	0	0	222	
Philippines	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	21	0	0	0	59	
Total ACPs, incl.	0	212 131	0	0	0	4 241	0	0	10 758	0	273 228	424 977	0	0	17 920	305	0	0	0	14 472	0	41	0	73	0	0	0	958 144
Cameroon	0	92 180	0	0	0	1	0	0	3 031	0	54 593	99 809	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	249 614
Côte d'Ivoire	0	37 495	0	0	0	0	0	0	4 814	0	140 680	46 205	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	229 195
Dom. Rep.	0	63 611	0	0	0	4 190	0	0	2 790	0	12 801	155 371	0	0	0	305	0	0	0	14 472	0	41	0	73	0	0	0	253 653
Belize	0	0	0	0	0	0	0	0	0	0	0	61 879	0	0	17 920	0	0	0	0	0	0	0	0	0	0	0	0	79 799
Surinam	0	0	0	0	0	0	0	0	0	0	57 615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57 615	
Ghana	0	18 782	0	0	0	0	0	0	0	0	7 538	10 166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36 486	
St Lucia	0	0	0	0	0	0	0	0	0	0	0	33 238	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33 238	
Dominica	0	0	0	0	0	0	0	0	123	0	0	10 798	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10 921	
St Vincent	0	0	0	0	0	0	0	0	0	0	0	7 511	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7 511	
Uganda	0	7	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	
Total Intra EU, including total EU-15	113 873	40 538	6 838	4 189	153 814	514 984	88 168	10 270	72 101	52 992	254 124	38 432	54 495	85 720	17 135	151 903	23 780	11 012	4 652	85 436	182 008	44 720	13 063	93 551	1 175	61 212	2 180 181	
Belgium	17 116	3 346	158	0	33 827	363 221	4 083	258	2 561	8 464	87 142	14 661	74	28 347	56	40 778	6 894	1 362	0	54 274	79 130	0	5 916	93 551	1 175	38 396	2 076 386	
Germany	60 815	9 886	38	0	35 240	0	54 779	4 856	524	21 559	17 343	733	800	15 749	1 913	13 152	12 703	1 316	0	26 198	76 813	29	647	53 652	8	12 830	421 583	
France	8 351	16 222	1 211	0	54 573	31 837	321	0	42 384	0	8 092	23	9 311	25	38 779	2 118	3 601	26	2 291	6 451	12 360	1 079	259	20	4 725	244 057		
Netherlands	24 136	8 914	42	18	21 300	50 402	9 167	233	11 186	309	44 144	8 574	59	2 483	1 297	14 087	615	457	523	0	10 662	316	1 426	19 416	99	121	229 985	
Italy	228	931	40	389	440	15 947	3	0	5 909	24	26 819	44	53 183	1 072	0	106	0	3 848	44	128	170	1 369	0	490	2 844	114 026		
Spain	0	22	0	0	0	381	312	0	0	0	41 408	257	244	1 576	0	1 362	0	0	0	575	111	31 577	19	0	0	0	77 844	
UK	8	102	0	55	637	174	3	0	2 240	0	36 527	0	43	0	13 844	300	0	0	0	1 786	238	183	142	3 507	0	0	59 789	
Ireland	0	0	0	0	0	41 265	0	0	0	0	6 021	0	0	0	0	0	0	0	0	0	0	85	0	0	0	0	47 371	
Portugal	0	42	0	0	0	0	0	0	7 298	0	1	9	0	0	0	25 482	0	0	0	0	0	0	0	0	0	0	32 831	
Sweden	0	26	0	0	0	1 630	4 982	0	0	22 470	145	0	0	0	0	0	0	0	0	74	0	0	0	0	0	0	29 327	
Finland	0	0	0	0	0	8	14 496	1 195	0	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15 794	
Austria	0	0	0	0	356	3 484	0	0	0	0	215	0	0	8 509	0	188	0	0	0	0	39	0	195	0	559	38	13 582	
Denmark	0	22	0	0	0	1 555	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10 579	0	0	0	12 157	
Greece	0	3 243	3 727	0	0	0	0	0	0	0	0	0	0	0	84	21	0	0	0	0	1	0	392	0	0	0	7 469	
Luxembourg	58	42	0	0	0	0	0	0	0	0	74	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	195	
Total NMSs, incl.	3 162	1 004	2 093	0	7 441	5 080	21	3 727	0	165	213	42	48	18 673	0	17 692	1 322	4 276	254	194	8 437	0	7 147	0	22 816	0	103 796	
Czech Rep	127	985	1 513	0	0	19	0	944	0	0	169	0	0	12 999	0	0	0	328	0	0	5 155	0	281	0	21 286	43 807	21 286	
Slovenia	1 118	0	402	0	542	686	0	0	0	0	0	0	0	3 577	0	11 106	21	0	0	0	1 769	0	1 413	0	908	12 543	908	
Slovakia	668	19	0	0	6 607	0	0	0	0	0	1	0	0	2 078	0	2 533	0	0	0	0	207	0	418	0	0	0	12 531	
Poland	417	0	0	0	291	4 134	0	0	0	0	42	0	0	20	0	2 024	477	439	0	153	0	1 049	0	0	0	385	9 431	
Lithuania	0	0	0	0	0	21	0	2 484	0	0	2	0	0	0	0	0	3 505	0	0	21	940	0	0	0	0	0	6 973	
Hungary	833	0	0	0	0	181	0	0	0	0	41	0	0	0	0	2 030	0	0	0	0	0	0	3 620	0	0	0	96	
Latvia	0	0	0	0	0	0	21	299	0	0	0	0	0	0	0	809	0	0	0	126	0	0	0	0	0	0	1 254	
Bulgaria	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	37	0	364	0	0	0	423	
Romania	0	0	168	0	1	40	0	0	0	0	0	0	25	0	0	0	0	0	0	19	0	0	0	0	0	0	140	
Estonia	0	0	0	0	0	0	0	0	0	165	0	0	0	0	0	0	15	4	0	0	203	0	0	0	0	0	387	
Cyprus	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	254	0	0	0	0	0	0	0	255	

Country codes according to the official EU norm / Source: Eurostat

Sustainable Banana Plan for the French West Indies

Mobilised in favour of the environment for more than ten years, the Guadeloupe and Martinique banana sector continuously improves its practice for better conservation of air, water and soil, for energy-saving, waste management and the enhancement of biodiversity in the plantations. Likewise, on a day-to-day basis, the adoption of new cultural practices and the introduction of technical innovations are aimed at 'green' or sustainable farming. These efforts have already given results, with a 70% reduction of pesticide spraying achieved for more than ten years now, making the Guadeloupe and Martinique industry among the smallest users of pesticides in the world, applying 5 to 10 times less than its main competitors on the European market.

This undertaking to ensure the sustainability of the FWI banana sector was very naturally officialised by the signing of the Plan Banane Durable (2008-2013) with the French authorities. In this sustainability plan, the sector has made undertakings related to economic, social and, of course, environmental aspects:

- economic sustainability objective: ensuring the economic sustainability of the sector in the difficult economic context of the French West Indies;
- social development objective: defending the working conditions of planters and workers in the sector;
- environmental objective: assessing and reducing all the impacts of banana growing on the remarkable, fragile environment in Guadeloupe and Martinique.

In short, these are concrete initiatives for sustainable development in line with the French 'Grenelle de l'environnement' meetings and the objectives of the authorities. But the Guadeloupe and Martinique banana sector will try to do better and faster than the objectives set. It aims to fulfil its undertakings in 2013, that is to say five years earlier than specified at the 'Grenelle de l'environnement'. The aim is to

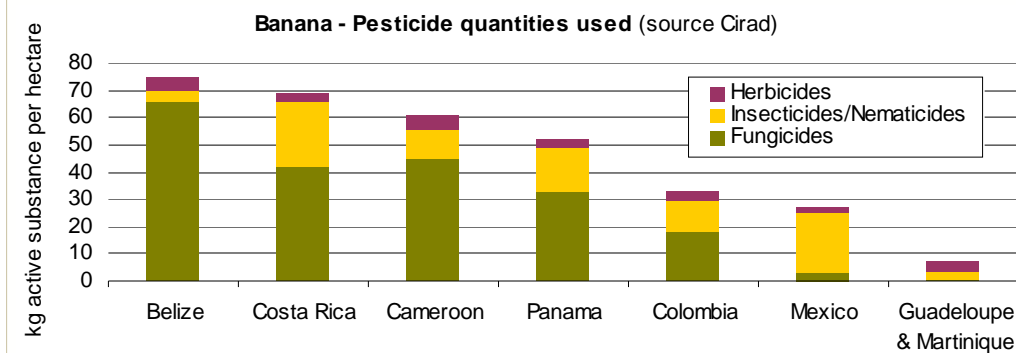
make this project an exemplary approach for all other production zones. The Institut Technique de la Banane (ITBAN) was set up at the end of 2008 to steer the plan. The ITBAN is an accelerator linking research centres (CIRAD, INRA, CEMAGREF) and growers. It is now also a model for other banana production (Institut Technique Européen de la Banane: MUSAE) in the world and other crops in Guadeloupe and Martinique. On 7 April 2010, ITBAN became open officially to the other agricultural production sectors that so requested (pineapple, market garden crops, melon, orchard crops, etc.) and is now called Institut Technique Tropical or IT². ITBAN is thus switching from a sector approach to a territorial approach that will in particular enable island populations to gain more food independence.

Good practice rules and the setting up of rational farming principles (i.e. spraying only when necessary) are essential in order to reduce pesticide application. However, the sector is fully aware that this is only a stage and that margins for future progress in questions of the environment depend on a deep-seated change in the way farming systems are designed. Chemical inputs should be replaced by ecological regulation processes as much as possible. This is referred to as 'integrated production' and 'ecologically intensive farming'. Talking about it is good but designing and testing these practices is better and also essential. And this is what the sector, ITBAN and researchers wish to do. The initiative is included in the Plan Banane Durable and has resulted in the setting up of two innovation platforms:

- an 'innovative farming system platform' for the development and maintaining of biodiversity in West Indian banana plantations;
- a breeding platform for the development of new varieties that are resistant to Black Sigatoka and other diseases.

In line with the initiative taken with the other European banana producers in the field of scientific and technical cooperation, a Plan Durable Caraïbes has been set up to enhance the development of Caribbean islands. The programme is financed by the European INTERREG fund and the aim is to make a contribution to the protection of the environment

and sustainable development in the West Indies. It is the first time that there has been regional collaboration on this scale. WINFA (Windward Islands Farmers Association), representing banana growers in Dominica, St Lucia, St Vincent and Grenada, the main partner outside European territory. The Dominican Republic has also joined the project.



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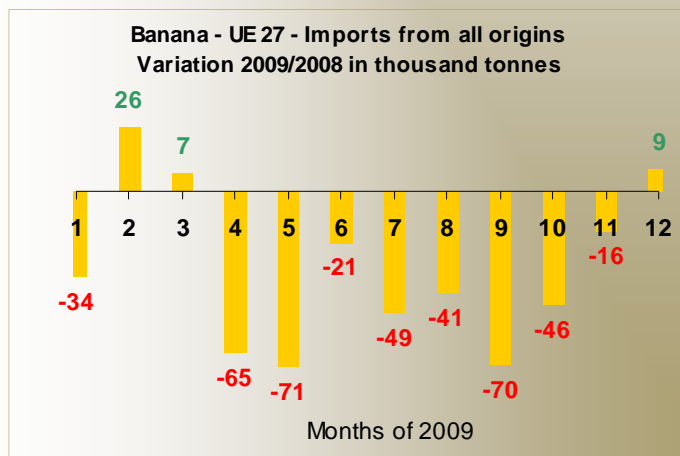
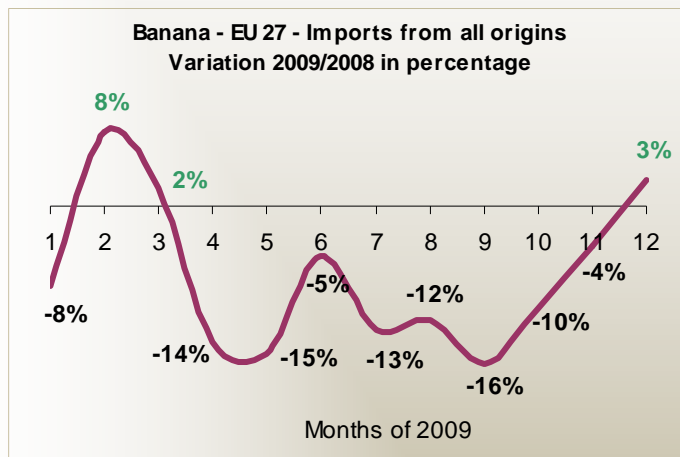
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Review of supply of the European banana market

As slow as expected

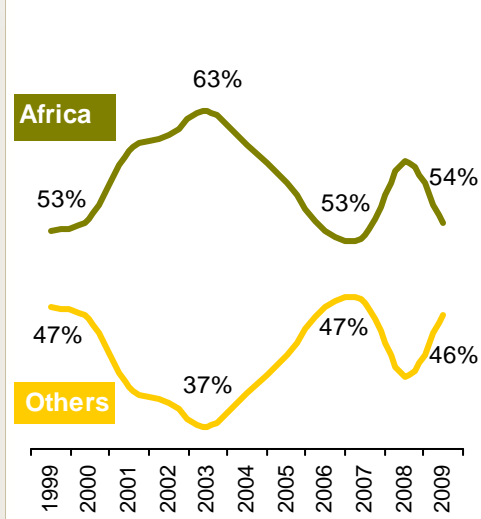


For those impressed by symbols, EU banana consumption in 2009 remained above 10 kg per person in 2009. But after three years of steady growth, the figure dipped by 700 g. After perusing these lines, an inattentive or suspicious reader will blame the level of EU customs dues levied on imports from Latin America, accused of affecting flows of banana imports. However, I suspect that the decrease is related less to politics than to weather. For if you had to choose a single reason for this sudden decrease in consumption and hence in imports it would be the very marked fall in supply from Costa Rica. The world's third largest exporter reduced its presence on the world market by a fifth. And that is the average for the year. The decrease was as much as 50% in some weeks! This obviously had a impact on import figures of the world's two main markets—the European Union and the United States, with Costa Rica's share decreasing by 16% and 38% respectively. The export shortfall from Costa Rica alone was nearly half a million tonnes, that is to say the equivalent of 11 months of French consumption!

Panama, Honduras, Guatemala and Nicaragua were also affected by the bad weather that swept Central America. Colombian exports were also smaller. Finally, world supply to the two large import regions (North America and Europe/Russia/Mediterranean) shrank by nearly a million tonnes in 2009! In the EU alone, net imports (after the deduction of re-exports) fell by 8% to 4.5 million tonnes. When European production is added (608 000 t), net supply to EU-27 was 5.1 million tonnes in 2009, 6% less than in 2008. Non-ACP third country sources (MFNs) supplied 69% of European consumption against 19% from ACP sources and 12% accounted for by European production.



Banana - ACP imports by EU



Costa Rica has chosen its side

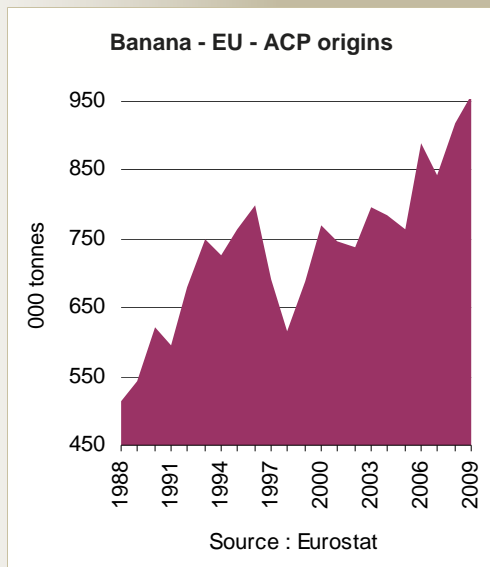
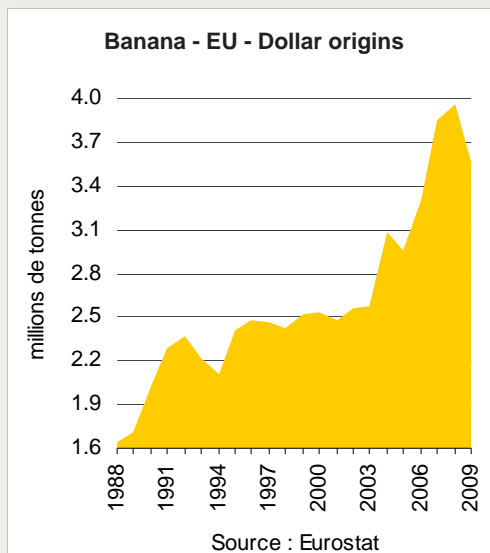
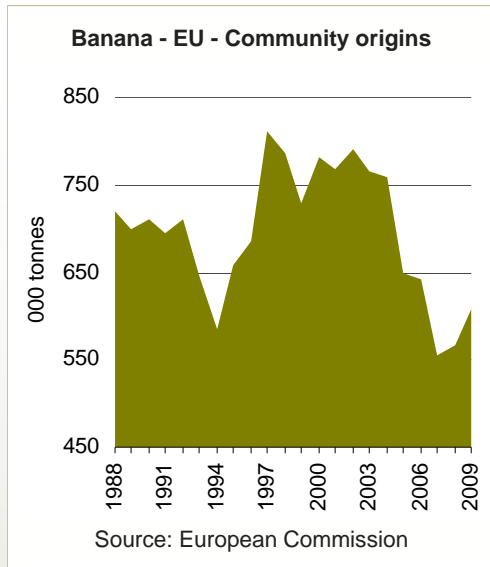
It is interesting to see how supply sources spread exports among the various markets. Colombia reduced shipments to both the United States and Europe by 6%. Costa Rica chose its side by favouring exports to the EU. Ecuador used its production reserves for operations on the spot market as when world supplies are short, it becomes a very attractive alternative source since it handles very few medium-term contracts and has strong production potential. The good prices obtained by Ecuadorian growers were mentioned in the January 2010 issue of **FruiTrop** (No.174, January 2010, pages 19 ff), especially in the first half of 2009: USD 7.20 per box, that is to say USD 1.80 higher than the minimum price.

The presence of Honduran (- 65%) and Guatemalan (- 74%) fruits dwindled markedly in the EU as both sources favoured the American market. There was less of a dilemma for Panama as it has favoured exports to the EU since the end of the 1990s. Although it was a delicate year,

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Guatemala remained the leading supplier of the United States with a 31% market share. It hardly appears at all in European statistics.

Brazilian presence on the European market decreased steadily to 56 000 tonnes after a peak at practically double this quantity in 2006. This is a major trend that could become reversed. Indeed, the serious flooding that hit the Del Monte plantation in Rio Grande do Norte state was a handicap for the presence of this source on the international market. However, Del Monte has just announced 2011 production of 1 million boxes (500 hectares) from its plantations in Limoeiro do Norte (Ceara).

Apart from Ecuador, few sources weathered 2009 unscathed. They include Peru, which breaks records year after year. Like the Dominican Republic, it has invested in organic and fair trade banana (see below). The rate of extension of plantations remains high—not only for banana but also for other fruits crops such as avocado and mango.

ACP sources hold 19% of the market

In contrast with dollar sources, the ACP countries performed well in 2009, gaining 4% to reach 958 000 tonnes and setting a new record. Their market share gained 19% (+ 2 points). Closer analysis shows that the dynamics of the ACP group is not homogeneous. In the 1990s and the early 2000s, Africa dominated the rest of the group. Three very different types of dynamics can now be observed. In the category of stable suppliers over the last ten years (with a few inter-annual variations), Côte d'Ivoire ships 200 000 to 230 000 t, Cameroon 220 000 to 300 000 t, Belize between 40 000 and 80 000 t and St Lucia between 30 000 and 40 000 t. The group whose exports are decreasing or even stopping consists of St Vincent, with slow but sure slowing, and Jamaica, which has disappeared completely from the market after being repeatedly hit by hurricanes (see accompanying sheet). Of the sources shipping more, two have recently launched or re-launched their banana sector (Ghana and Surinam) and, above all, the Domini-



Photos © Guy Bréhinier et Régis Domergue



can Republic has increased shipments to Europe fourfold in less than a decade, now exceeding 250 000 tonnes, consisting mainly of organic and fair trade produce.

European production recovering

After a five-year decrease from 2003 to 2007 and two years of stagnation in 2008 and 2009, European production is now getting under way again. It is difficult to sort out the downward trend common to all sources, weather problems and earthquakes and even political features that have all affected West Indian production in recent years and the determination to limit production in the Canary Islands. With 236 000 tonnes shipped in 2009, the

Banana consumption per capita in 2009	
	kg/year
EU-27	10.2
EU-15	11.3
NMS-12	6.2

Source: Cirad



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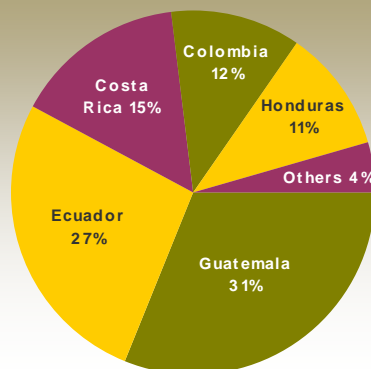


The United States banana market: down and down again

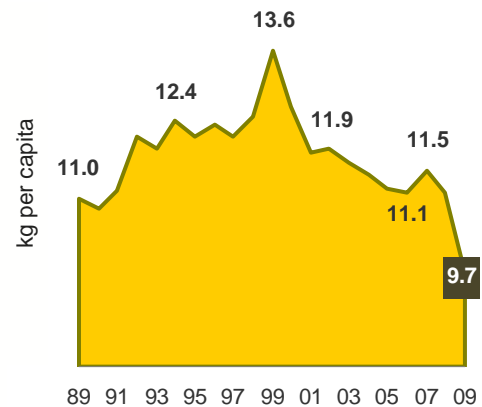
The American market ran into trouble again in 2009 in no uncertain way! Net supply was the lowest since 1991 at only 3 041 594 tonnes, that is to say 12% less than in 2008. This is far from the nearly 3.9 million tonnes imported in 1999. In contrast, re-exports broke records at 538 000 tonnes. Canada was the destination for 98% of this. The increase in population means that annual per capita consumption fell to a hitherto unknown 9.7 kg. The figure has decreased by 4 kg in a decade.

Ecuador benefited from the difficulties experienced by Central American suppliers such as Guatemala, whose shipments decreased by 6% although this source was still the leading supplier of the American market, and Costa Rica and Honduras with dips of 38% and 23% respectively. The presence of Colombia was also reduced in the same proportions as on the European market (- 6%). Ecuador thus made a choice, selling on the spot market and doing 15% better than in 2008 but still less than a million tonnes. It is true that the prices proposed by the American market were very attractive. The average annual spot market price rose to nearly USD16 per box, a 4% increase in comparison with 2008 and 47% more than in 2007! The retail price did not shift at all in 2009, remaining at the USD1.35 peak. A reversal of the 2009 trend was confirmed in the early months of 2010, following the marked decrease in import prices. In terms of volume, the market started a timid recovery with a 2% increase in imports in January 2010. Guatemala and Costa Rica returned to the market (+14% and + 3% respectively) and Ecuador shipped 10% less.

Banana — United States Imports in 2009

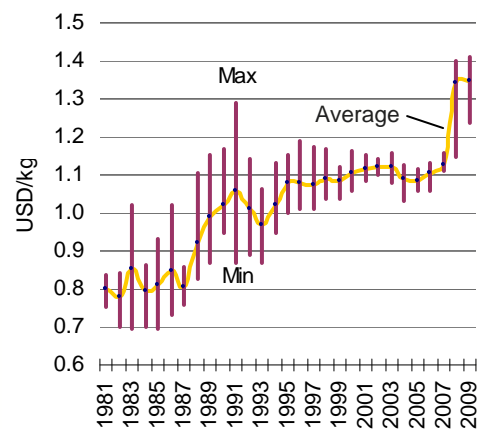


Banana - United States Consumption



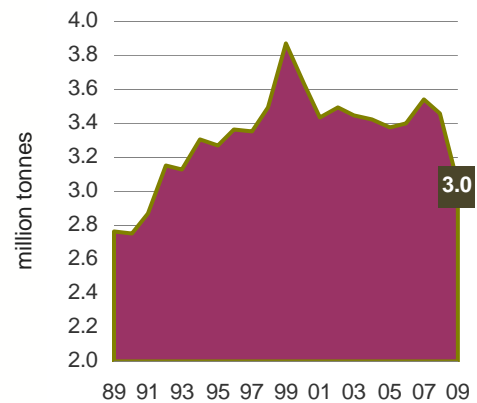
Source: customs

Banana - United States - Retail prices



Source : Bureau of Labor Statistics

Banana - United States Net supply



Source: customs

Nouvelle avancée du Plan Banane Durable : la lutte biologique

Depuis plus de 10 ans, la Banane de Guadeloupe & Martinique œuvre à la valorisation et à la protection de la Terre des Antilles. Au cœur de ses actions, la mise en place de nouvelles pratiques culturales qui ont d'ores et déjà permis de diminuer l'utilisation des pesticides de 70%.
Un pas de géant. Mais la filière ne s'arrête pas là.

La lutte biologique, le choix du naturel

■ Les bananiers doivent régulièrement lutter contre des attaques de champignons, d'insectes ou de mauvaises herbes. Il existe dans la nature des adversaires à chacun de ces parasites. La lutte biologique consiste à utiliser ces agents naturels pour protéger la plante. Dans une logique d'agriculture durable, l'objectif de la filière de production de Banane de Guadeloupe & Martinique est d'utiliser ces substances naturelles en substitution progressive aux pesticides de synthèse.

Un objectif ambitieux compte tenu des étapes à franchir et du temps nécessaire à l'obtention des autorisations européennes.

Travail en collaboration avec les Centres Techniques de la Canne et du Sucre de Guadeloupe et de Martinique



“ « Pas moins de 27 essais sont prévus en 2010 en Martinique, 8 concernent la culture de la banane » confie Isabelle Jean-Baptiste, responsable des expérimentations au CTCS de Martinique. ”

QUELQUES EXEMPLES DE SUBSTANCES NATURELLES LUTTANT CONTRE LES PARASITES.

- L'extraire d'arbre à thé contre la cercosporiose (champignon attaquant les feuilles des bananiers)
- L'essence d'orange contre les thrips ou les cochenilles (insectes parasites causant des dommages aux fruits)
- L'huile de citronnelle pour le désherbage
- L'huile de clou de girofle contre les nématodes (vers qui attaquent les racines du bananier)

UN PROJET EN 3 ÉTAPES

LA SÉLECTION

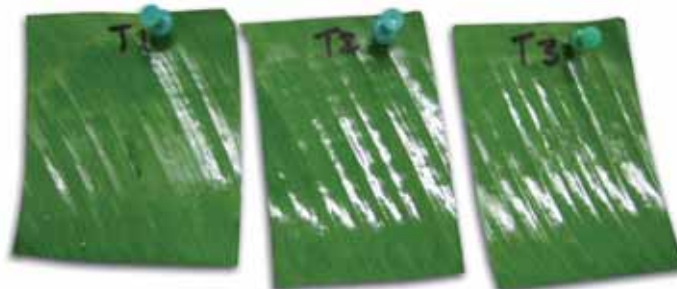
■ Il s'agit dans un premier temps d'identifier les agents naturels utilisés sur d'autres cultures, en Europe et dans le monde et qui ont démontré leur efficacité dans ces zones d'utilisation. L'extraire d'arbre à thé pour lutter contre la cercosporiose est, par exemple, actuellement testé dans des bananeraies d'Afrique et d'Amérique centrale.

LES TESTS

■ Une première phase de tests est réalisée en laboratoire puis sur les bananiers. Les critères des tests sont : l'innocuité pour l'homme et pour l'environnement, et l'efficacité. Ces expérimentations sont conduites par l'Institut Technique de la Banane (ITBAN) en collaboration avec les Centres Techniques de la Canne et du Sucre (CTCS).

L'HOMOLOGATION

■ Soumis à la même réglementation que les produits phytosanitaires de synthèse, les pesticides d'origine naturelle doivent être autorisés par la Commission européenne sur la base des tests réalisés. Ces démarches nécessitent beaucoup de temps et d'argent, ce qui constitue un frein important au développement de ces méthodes naturelles dans l'Union européenne.



Test d'efficacité de l'extraire d'arbre à thé contre la cercosporiose sur les feuilles de bananier. Résultat : Pas d'évolution de la maladie à T1=7 jours, T2=14 jours et T3=21 jours.

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UNION DES GROUPEMENTS DE PRODUCTEURS DE BANANES DE GUADELOUPE ET MARTINIQUE

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French West Indies have regained some of the ground lost during hurricane Dean in 2007 and should reach their historic 280 000-tonne level. The volcanic ash that fell on the banana plantations in Guadeloupe at the beginning of this year will fortunately only affect part of this fine recovery. Growers have announced the loss of 20 000 tonnes, that is to say 36% of the total shipped in 2009. The Canaries (352 000 t in 2009) are not far from their 1994 low point at 322 000 tonnes. Measures to bridle supply and voluntary withdrawal of fruits when the market is encumbered (in the spring and especially the summer) have kept Canary shipments at between 350 000 and 370 000 tonnes since 2005. The smaller harvests in Madeira, Greece and Cyprus decreased in 2009, confirming the general trend. Madeiran exports still totalled 43 000 tonnes in 1992 before the single European market. This was three times as much as the 14 500 tonnes shipped in 2009 ■

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Banana — European Union — Evaluation of supply — Tonnes

Year	Banana type or origin			Sub-total	Exports	Supply
	Community	ACP	Others (\$)			
1988	719 270	514 061	1 644 100	2 877 431	17 265	2 860 166
1989	698 925	544 441	1 716 175	2 959 541	13 415	2 946 126
1990	710 635	621 875	2 024 248	3 356 758	36 219	3 320 539
1991	695 402	596 416	2 286 019	3 577 837	53 468	3 524 369
1992	711 191	680 191	2 365 883	3 757 265	39 689	3 717 576
1993	646 242	748 120	2 219 721	3 614 083	36 138	3 577 945
1994	584 622	726 927	2 102 303	3 413 852	58 044	3 355 808
1995	658 206	763 886	2 405 180	3 827 272	43 082	3 784 190
1996	684 605	798 109	2 471 263	3 953 977	30 598	3 923 379
1997	810 537	692 731	2 464 412	3 967 680	16 571	3 951 109
1998	786 232	614 459	2 426 419	3 827 110	26 448	3 800 662
1999	729 303	688 170	2 522 455	3 939 928	27 359	3 912 569
2000	782 176	770 095	2 528 170	4 080 441	35 327	4 045 114
2001	767 268	747 131	2 474 665	3 989 064	34 284	3 954 780
2002	790 622	738 439	2 554 508	4 083 569	8 011	4 075 558
2003	765 416	797 269	2 578 827	4 141 512	6 020	4 135 492
2004	758 206	782 979	3 077 361	4 618 546	11 029	4 607 517
2005	648 375	763 974	2 959 463	4 371 812	4 970	4 366 842
2006	641 559	889 176	3 306 538	4 837 273	8 392	4 828 881
2007	554 734	842 959	3 848 266	5 245 959	9 270	5 236 689
2008	567 560	918 923	3 964 866	5 451 349	10 002	5 441 347
2009	608 048	958 144	3 555 462	5 121 654	7 884	5 113 770

(1)

(2)

(2)

(3)

(1) 1988 to 1993 inclusive: Eurostat + European Commission data for Madeira and Greece. From 1994 onwards: supplementary aid data.

(2) Eurostat data: all imports from non-community and non-ACP countries.

(3) Duty-paid bananas (released for free circulation) in one of the EU-27 member countries and then exported outside EU-27.

General note: before 1994: dessert bananas + plantains / From 1994 onwards: dessert bananas. Before 1995: EU-12 / From 1995 to 2003: EU-15 / From 2004 to 2006: EU-25 / Since 2007: EU-27. The study concerns extra-community import data for ACP and dollar bananas and re-export. The rules of operation of the common market organisation of banana (1993 version) have been applied to the data from 1988 onwards in order to give comparable results. Source: Eurostat, European Commission / Processing: Cirad Market News Service





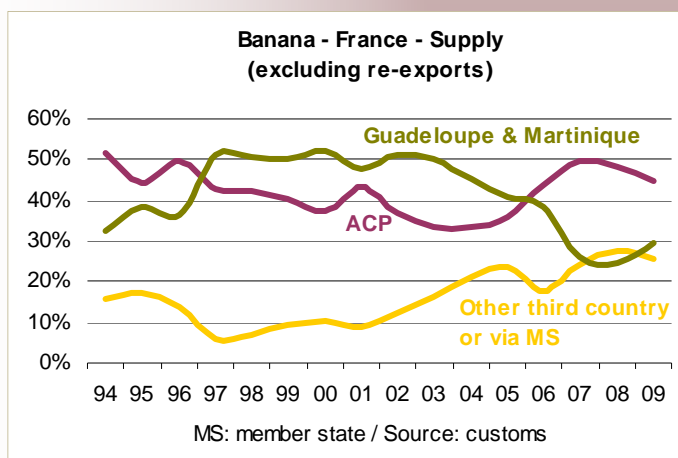
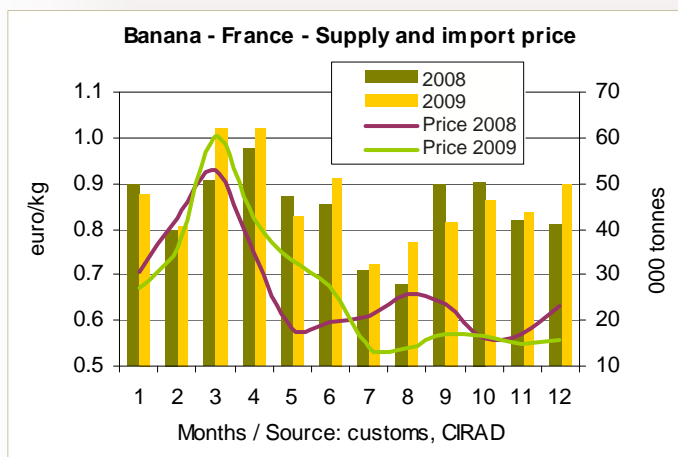
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The French banana market

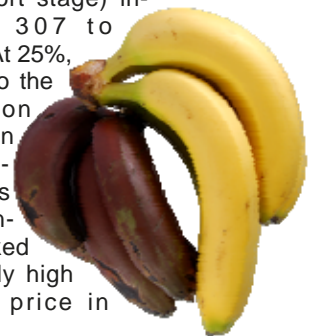
More, more and more



Even the most sceptical observers will have to agree. The volumes of the French market have been increasing since 2007. Three years of continuous growth is obviously not a major trend but it is no coincidence either, especially in 2009. The good orientation of the French market runs counter to that of the world market. While net supply of EU-27 is down by 6% and that of the United States by 12%, France took an extra 24 000 tonnes in 2009, that is to say 5% growth. Consumption is thus 8.9 kg per person and approaching the 9.0 kg reached in 2002, the highest level ever. It is true that the 2009 figure can give satisfaction when compared to the 7.9 kg of 2006. But the performance should be viewed in relative terms as the EU average was 10.2 kg (provisional figure) in 2009 and had even reached 10.9 kg in 2008.

Smile if you dare!

So no regrets and let's be happy about the resurrection of the banana market while the world market is shrinking. For observation of turnover rather than volumes shows that the French market has made progress here too. The increase in volume has created value rather than destroyed it. Sector sales from 2006 to 2009 (evaluated from average monthly prices at the import stage) increased from 307 to 383 million euros. At 25%, this is very close to the record 394 million euros attained in 2005, a very unusual year in terms of quay prices. Indeed, it was marked by an exceptionally high annual average price in



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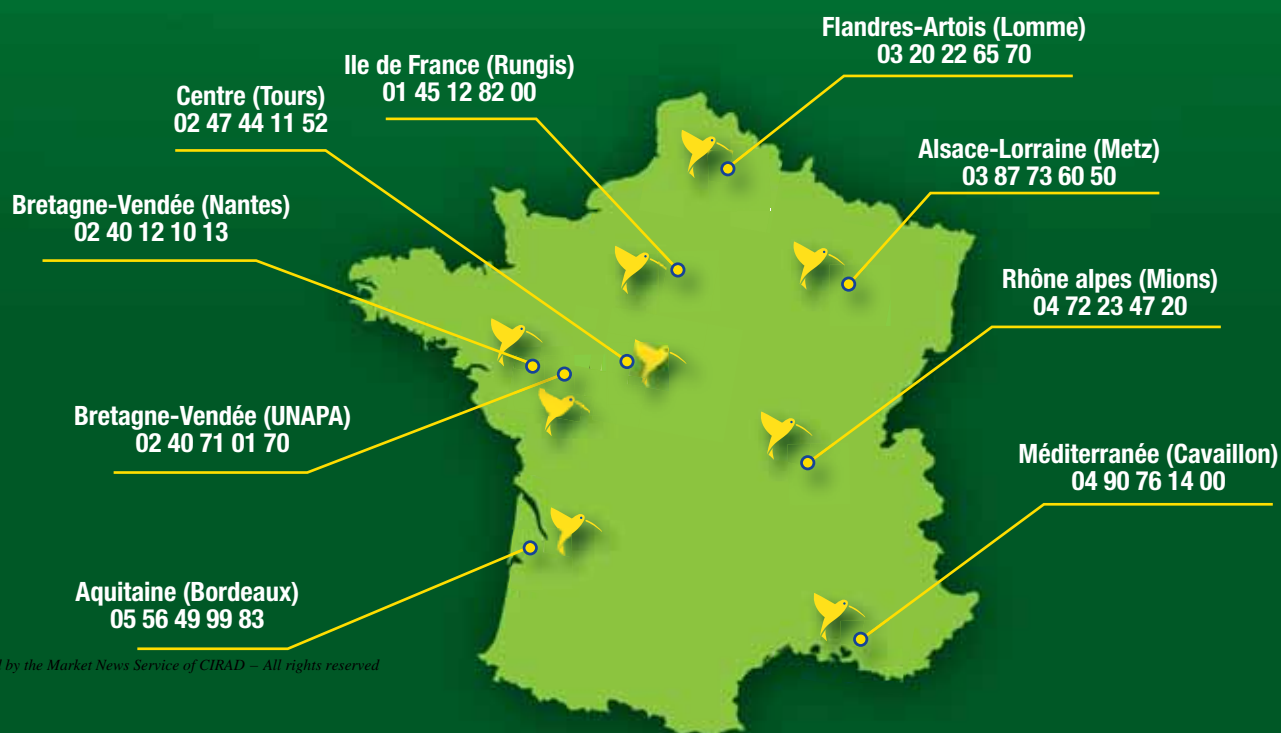


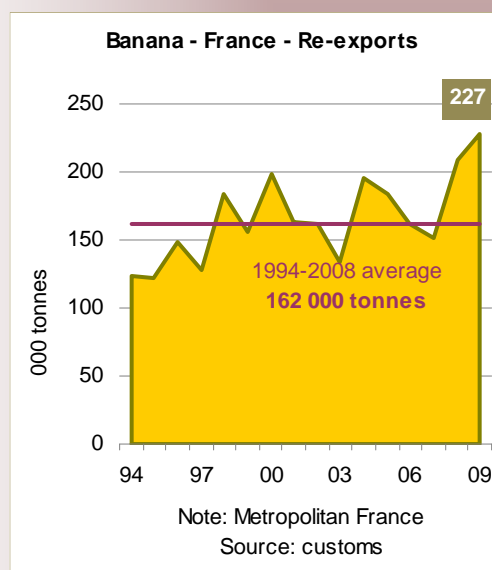
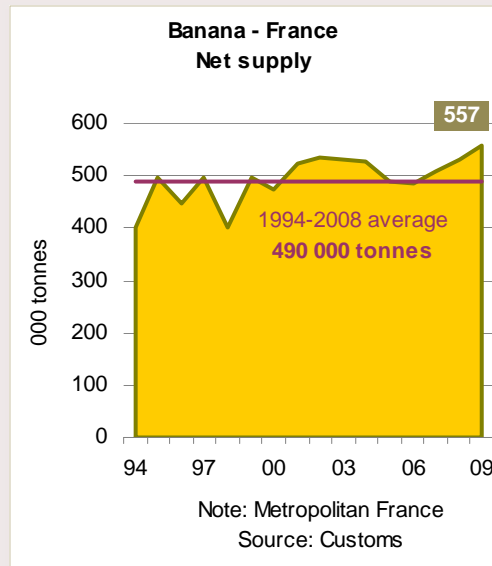
Fruidor, la culture de la différence

1^{er} réseau de mûrisserie de France avec **9 sites** répartis sur tout le territoire (tous certifiés ISO 9001:2008 et/ou IFS), Fruidor est le **leader sur le marché français** de la banane avec près de **160 000 tonnes mûries en 2009** (origine Guadeloupe & Martinique, Afrique, Amérique latine, caraïbes, République Dominicaine).



Notre savoir faire dans l'approvisionnement en bananes vertes et notre expertise dans le mûrisage et le conditionnement nous permettent de vous proposer une large gamme de bananes (Banane de Guadeloupe & Martinique, banane bio, banane rose, petite banane, banane plantain, Freyssinette, Banane Planteur et Montagne de G&M) ainsi qu'un accompagnement marketing ciblé tout au long de l'année (jeux concours, opérations promotionnelles, animations magasins).





Photos © Régis Domergue

France of EUR 0.78 per kg, more than 17% better than the average for four preceding years.

There are many reasons for the present success. No single parameter can fully account for the trend. However, what seems to have been the determinant feature in 2009 is related to the structure of the French market. It is a redistribution market (227 000 tonnes re-shipped in 2009) but also strongly structured by traditional supply. Bananas are grown in the French overseas departments in the West Indies (Martinique and Guadeloupe) and has always had very strong links with exporting countries in Africa, especially Cameroon and Côte d'Ivoire. In a way, this gives it an assurance with regard to supply. During periods of strong decrease of world supply, estimated at a million tonnes in 2009, France benefits from stable supplies, completed by new sources such as Ghana and Surinam whose flows are mastered by French operators. The other side of the coin is its extreme fragility when world supply returns to the highest levels because it receives dollar bananas from third countries in addition to the traditional volumes. Proof of this was seen in 2008 when Martinique could not handle its market share because of the hurricane in 2007. Dollar sources then grabbed a 28% market share directly or via another EU member. This was an all-time record.

Banana has escaped the downturn

The practically record rate or intensity of promotion operations in 2009 is another positive factor. It reached 31%, the best level since 2000 (32%). The promotion of bananas, by far the most competitive fruit in fruits and vegetable and even all fresh food departments of shops, was a deliberate act by supermarket chains that wished to show that during a crisis period they could offer low prices every day. French retail prices fell by 4% whereas every where else in Europe they held at close or identical to those of 2008 (**Fruitrop 174**, January 2010).







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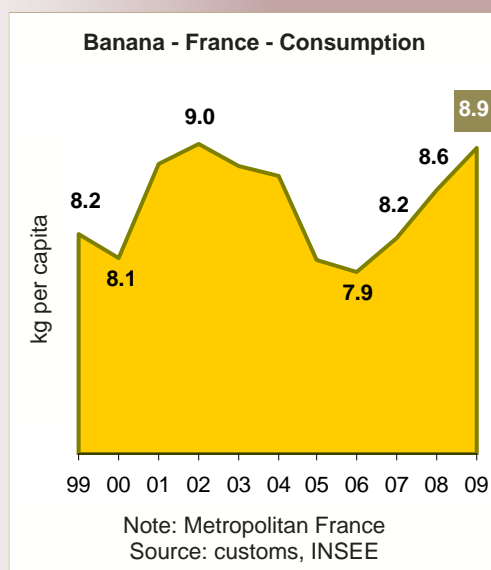
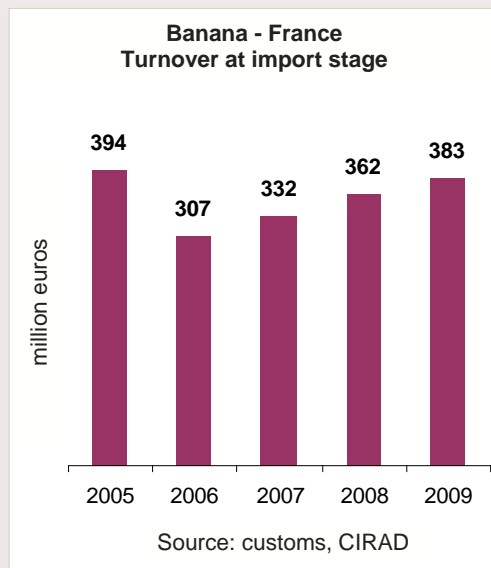
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Similarly, it can be considered that the communication policy of French growers made a contribution to the increase in volumes. The restructuring of the market also doubtless played a role. Since the end of 2008, most of supply has been centred on several large ripening networks that are in turn closely linked to both African and West Indian production.

Waiting for the sacred union

What lies ahead for the French market? Either it is experiencing structural growth and there is nothing to prevent action to enhance this by working on both added-value and volumes or it will be hit head-on by the dark prospects of 2010, with world supply returning to its highest level. The first quarter of 2010 confirms this strong degradation in both value and volume. The average first quarter import price in France was disastrous and, at EUR 0.64 per kg, close to the lowest historical level of 2004 (EUR 0.63 per kg). Net supply for the first two months of the year is 4% down—a return to levels not seen since 2007. Even if at least where prices are concerned these levels differ very little from the European trend, French operators should react. The merits of an interprofessional organisation able to work on demand to develop the market and improve added-value for the benefit of all stakeholders has often been discussed in **Fruitrop**. The initiative seems to be stuck for the moment even though the cause is just and urgent. It is a pity that this pooling of energy and ideas for improving the value of the sector has not started during a good period for the market. But sacred unions can rarely be ordered during a period of optimism. 2010 might turn out to be a wonderful year for agreement ■

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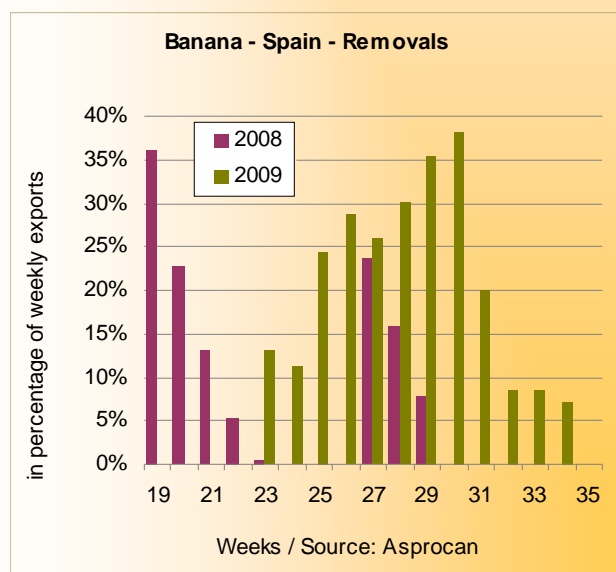
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The Spanish banana market

End of the Canary exception



Only diamonds are forever. James Bond could have told Spanish banana growers this as examination of net supply of the Spanish market shows that the Canaries have lost their dominance on the domestic market. Indeed, the share held by the Canary Islands decreased by more than 30% between the beginning of the 2000s and 2009. It is now 67% and has lost ground continuously since 2001. This is all the more critical as the Spanish market has grown throughout the period, even peaking in 2008 with apparent consumption of 490 000 tonnes.

Welcome to the club

Canary growers are experiencing what French growers were often criticised for a few years ago, that is to say failure to master the domestic market. However, the initial situation was very different. Before the single banana market was set up in 1993, Spanish consumers had never had the opportunity or the right to buy anything other than Canary Island bananas. French growers have never been in this position as the French market has always taken delivery of bananas from Africa and also from Latin America when bad weather hit traditional supply zones. However, Spanish production has been unable to live on its enormous capital of domestic esteem. It has had to maintain this national fibre and make it last. Marketing policies have always had the same focus, even going as far as making the peel defects of Canary Island bananas gauges of produce origin and quality: 'El sabor de lo nuestro', 'Las apariencias engañan. El sabor no', etc. Growers' efforts were successful and the market held up for more than 15 years.

However, the honeymoon between consumers and growers seems to be over. The economic downturn hit hard. Growers were unable to keep the retail prices of their bananas down. In 2009 the price of Canary bananas exceeded the psychological threshold of EUR 2.00 per kg for months. This was all the





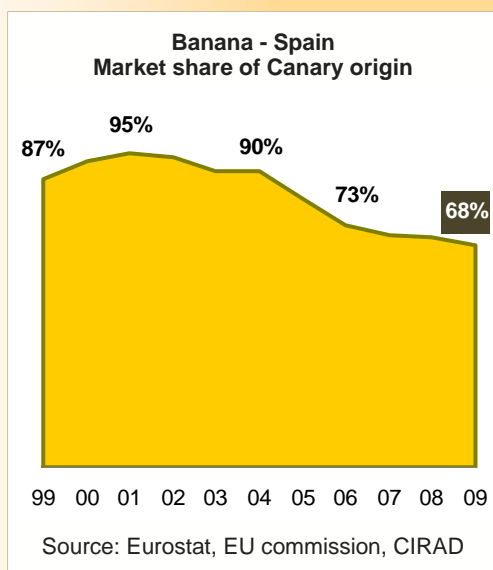
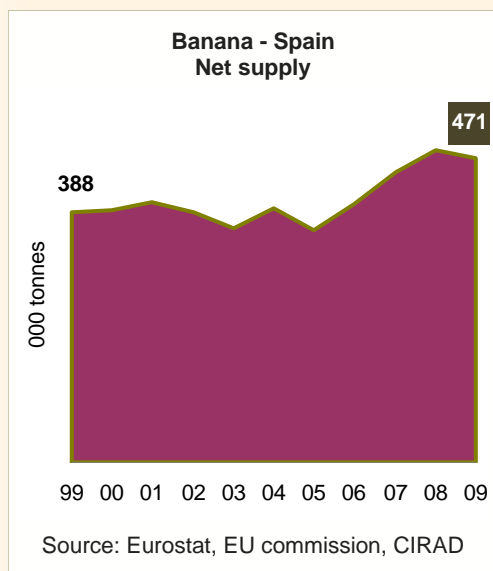
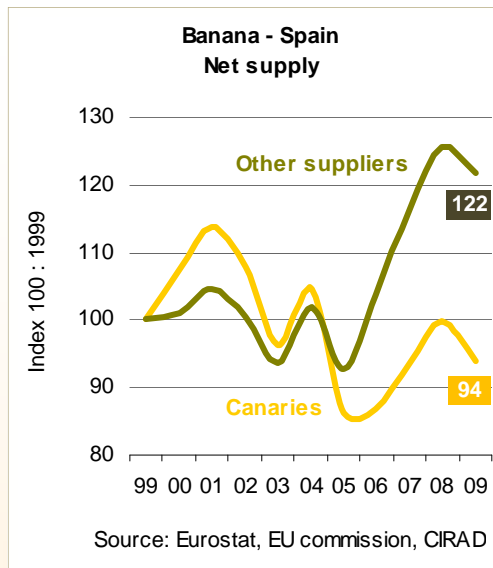
more disturbing as fruits from Central America or other EU member-states changed hands at between EUR 1.30 and 1.50 per kg. The difference in price is becoming increasingly difficult to explain to consumers as resulting from a difference in source alone. The same feature has been observed at the import stage, with two kg of dollar bananas costing the same as one kg of Canary bananas in autumn 2009.

Double sentence

Political difficulties have now been added to market problems. In its race to sign a trade agreement with various economic zones in South America (the Andean Pact, the Central American Common Market (CACM), Mercosur), the Spanish central government has abandoned its growers by very quickly abandoning defence of customs dues on imports of South American bananas. European growers (both Spanish and French) were expecting strong support from the current European presidency. And this support will not be found at the European Commission which does not seem to wish to compensate this practically complete opening of the European market by increasing POSEI aid.

It is difficult to be optimistic under these conditions. The future of the Canary Island banana plantations seems to be in a dead-end. The national market is escaping—fortunately only partially—and the only alternatives are to find markets outside Spain or to reduce releases by retaining fruits at the source. The latter solution was much used in summer 2009. From weeks 23 to 35, 12 400 tonnes of bananas was destroyed before loading, representing 7 to 38% of the weekly shipments to Spain. This withdrawal policy is costly and cannot become standard practice. Growers are currently examining the better matching of supply and demand and in 2010 are still using a quota policy. Market diversification is the second pathway. In February 2010, Asprocan, the Canary growers' defence body, attacked the German market, wishing to propose 'strongly differentiated produce'. Northern European consumers must be convinced of the intrinsic qualities of Canary Island bananas in spite of the stains and scratches that have nonetheless formed the image of these bananas. It will be a hard job to prevent the Garden of Hesperides, as the ancient Greeks referred to the archipelago, from becoming Paradise Lost ■

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Photos © Charles de Wulf





Producer country sheet

Banana in Surinam



The Surinam banana sector has been completely restructured since 2002 with the help of the European Union's ATF programme. This plan made it possible to restart production in June 2003 after the closure of the state company Surland NV in April 2002. Exports to Europe were resumed in March 2004. Sales were conducted with the Agrisol/Katope group under the 'Switie' brand from March 2004 to December 2009. In 2010, half of production will be sold via Compagnie Fruitière under the 'Bouba' and 'Savanna' brands and the other half via Agrisol/Katope as 'Switie'. Exports should reach 80 000 tonnes in 2010, that is to say 2.5 times the pre-2002 production of Surland NV.

History

In 1957, the government of Surinam decided to develop banana production and a Ministry of Agriculture department was entrusted with the task of running the programme and aiding the development of several plantations. In August 1971, existing plantations were grouped in a single state company, Surland NV. The entire production was sold via Fyffes from 1971 to April 2002. Production totalled 40 000 tonnes at the beginning of the 1980s, and gradually decreased to less than 30 000 tonnes at the end of the 1990s/early 2000s, with productivity at less than 1 100 boxes per hectare. Production, financial and social problems resulted in the government closing Surland NV in April 2002. From October 2002, using a strategic plan for the

re-launching and restructuring of the banana sector, the company SBBS (Stichting Behoud Bananen Sector) was founded by the Surinam government to manage the restructuring of the sector and to prepare for privatisation. Following the failure of 2005 privatisation resulting from uncertainty with regard to changes in the European banana regime, a management contract for production, marketing and the funding of SBBS was signed by the Agrisol/Katope group and Surinam in October 2006. This contract terminated in December 2009. A new commercial partnership has been set up for 2010 with Compagnie Fruitière ('Bouba' and 'Savanna' brands) for production at Nickerie and with Agrisol for that of Jarikaba ('Switie' brand).



Production zones

Bananas are grown in two zones: at Jarikaba 25 km from the port of Paramaribo on 1 353 hectares of cultivable land (830 ha currently in production) and at Nickerie, 250 km west of Paramaribo, on 1 012 hectares of cultivable land (930 ha in production). These zones benefit from good insolation and an average temperature of 27°C, optimal for banana production. Good quality water is available in sufficient quantities. The land is flat, facilitating the use of cableways for carrying fruits and for irrigation. Polders allow short fallows by flooding the plantations for effective cleansing of the land. The soil is clayey and rich and little subject to pest pressure—especially from nematodes. In addition, Surinam is not exposed to hurricanes and gales are rare. Finally, only Yellow Sigatoka is present, a less virulent disease than Black Sigatoka.



Production

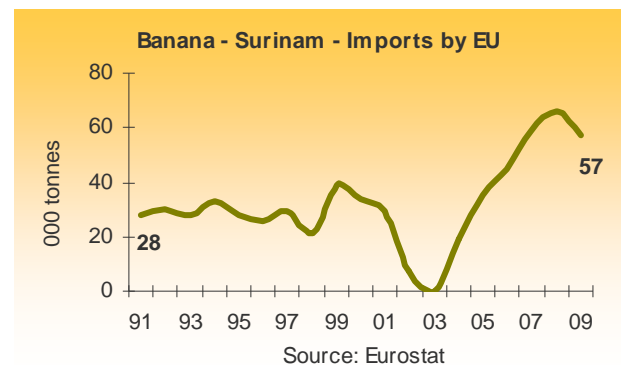
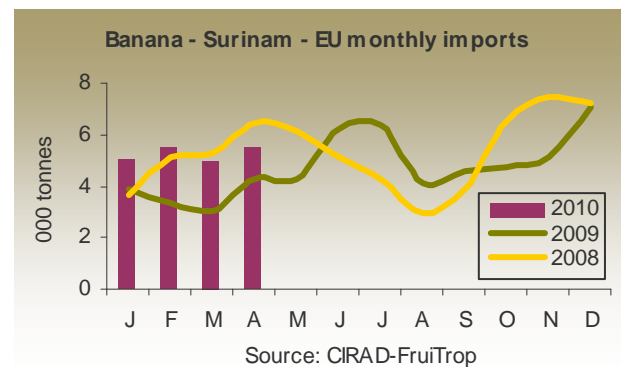
A large 30-million dollar investment programme was run from 2003 to 2010 at the two operating sites. This has received 90% funding from the European Union within the framework of the 1999-2008 ATF programme set up for ACP countries. Nickerie and Jarikaba were able to acquire packing stations, new irrigation and drainage infrastructure and new, modern cableways. Buildings for storing inputs and installations for plantation workers (canteen, toilet installations and field camps) were also built, enabling SBBS to obtain GLOBALGAP certification in June 2009.

The restructuring plan resulted in a significant increase in banana sector productivity from 15 to 40 tonnes per hectare. Production volume has increased steadily with the increase in the cultivated area, with a 2.5-fold increase in comparison with Surland NV. It should be 80 000 tonnes in 2010 and reach 100 000 tonnes when all the cultivable area has been planted.



Logistics

The banana sector has also made it possible to set up a weekly shipping service between Paramaribo and Europe. The voyage with the CMA-CGM company takes 13 days. It uses a feeder between Paramaribo and Pointe-à-Pitre (Guadeloupe) and CMA-CGM's PCRF ships from the French West Indies to Europe.



Exports

The banana sector has a major impact on the economy of Surinam. SBBS is the largest employer with 2 400 workers and a payroll of 13 million dollars. Activity in the banana sector accounts for 60% of the containers exported by Surinam and is the main source of income for the port of Paramaribo (20%), the fourth source of income in the country (7%) and brings nearly USD 2 million into the state coffers. Indirect effects on the economy are estimated to total USD 4 million per year.

A COMOÉ a day keeps the doctor away



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Producer country sheet

Banana in Côte d'Ivoire

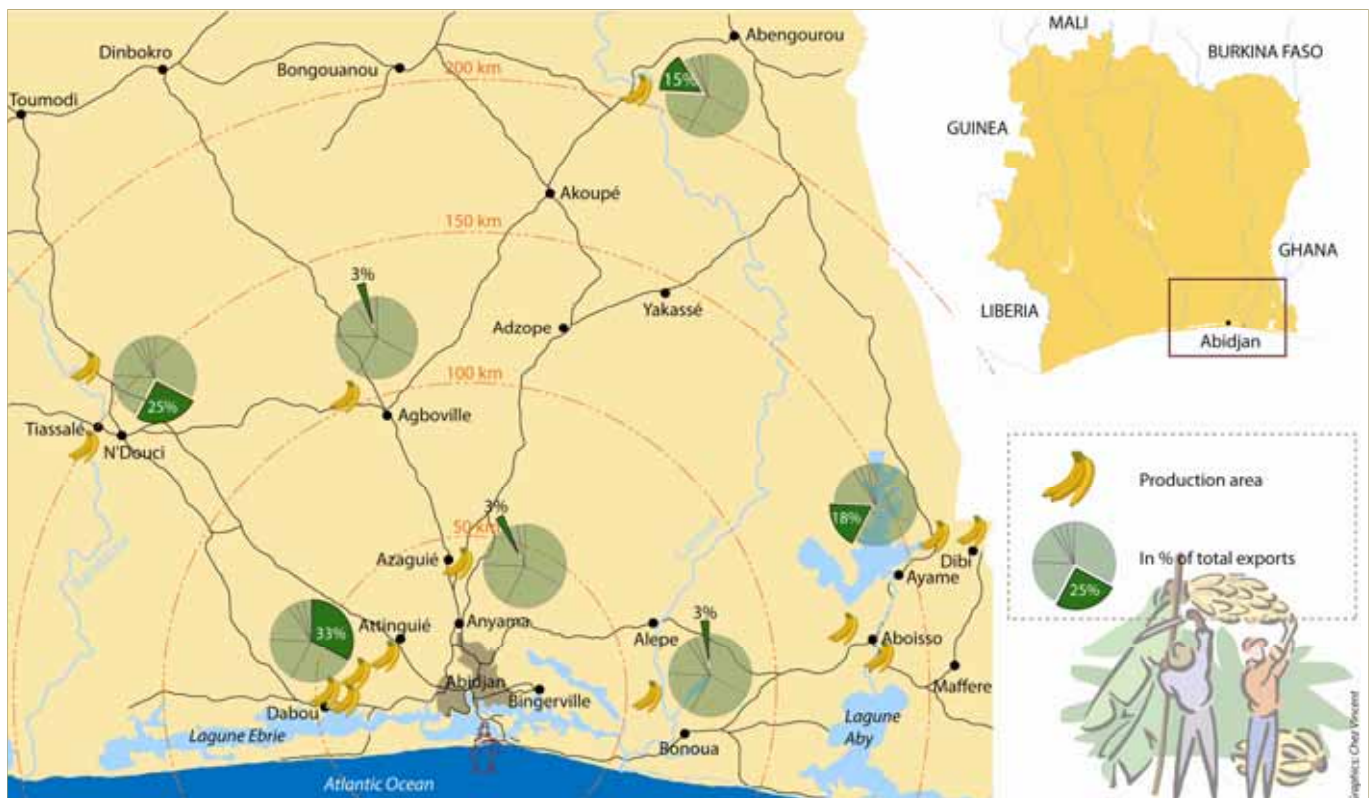
The first bananas were exported from Côte d'Ivoire in 1930 but shipments did not really develop until after 1958, in particular thanks to growers who had suddenly left Guinea Conakry and came to settle in the Agnéby valley, in the peaty, floodable plains of the Niéké. Production increased very strongly from 1963 to 1980, with the first record set in 1972 with 160 000 tonnes. However, the spread of Yellow Sigatoka disease caused growers to abandon the 'Petite Naine' variety that had come from the Canary Islands via Guinea in 1902 and switch to 'Poyo'. Exports stagnated at between 120 000 and 140 000 tonnes in the 1970s and then decreased to be-

tween 80 000 and 100 000 tonnes in the 1980s. Practically all the small plantations disappeared, although there has been as many as 750. Various planters' groups, cooperatives and agricultural companies were set up and these sell their fruits to the importers of their choice. They are grouped in OCAB (Organisation Centrale des producteurs exportateurs d'Ananas et de Bananes) which represents them in contacts with national and international authorities and manages common interests. Côte d'Ivoire banana exports currently total an average of about 240 000 tonnes.

Production zone

The banana plantations are within a maximum of 200 km around Abidjan, the port where they are loaded for shipment. The banana growing area in Côte d'Ivoire has a tropical forest climate with two rainy seasons. The longest and most intense is centred on June and the shortest one peaks in October. They are separated by a short dry season with little sunshine (this totals 1 600 to 1 800 hours per year). The land is flat or has a very slight slope and so cableways can be installed in many places. Rainfall—very uneven in recent years—totals 1 400 mm per year in the northernmost zones and 1 900

mm further south and south-east. Nevertheless, irrigation is essential for at least 8 months of the year and all the plantations are equipped with irrigation systems. Average temperature is 26°C, with small daily amplitude. Winds can be strong during inter-season periods and especially at the end of the long dry season. It is estimated that tornadoes cause crop losses of 5 to 10% per year. Some more exposed plantations have invested in guying. Soils vary, being clayey, gravelly or peaty. About 30% of production land is in a polder situation and continuous pumping is required.





BANANA FROM CÔTE D'IVOIRE

**PRODUCER - EXPORTER
20 000 TONNES FOR EUROPEAN AND
AFRICAN MARKETS**

Global Gap / Tesco Nurture

SPD cie / BATIA

01 BP 93 ABIDJAN 01 - CÔTE D'IVOIRE

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Production

The area used totals 7 000 hectares, of which 5 500 ha is planted. The investments made by growers since the 1990s, subsequently aided by the setting up of financial and technical assistance from Europe, have resulted in improvement to joint and individual production facilities. Particular attention has also been paid to improving workers' living conditions and to conservation of the natural environment. The upgrading of production facilities is practically complete overall. The average yield has risen from 30 tonnes per ha in 1994 to 50 t/ha today, with variations from 25 to 70 t/ha according to location and the investments made.

Yellow Sigatoka disease—widespread from the 1950s onwards—has been gradually replaced by Black Sigatoka which has spread from the eastern part of the country. An average of 12 to 17 aerial sprayings are performed annually. Pests consist mainly of nematodes (1 to 2 control treatments per year) and banana borer weevils (0.8 to 1.5 treatments per year). The gradual introduction of tissue culture plants since the 1990s has resulted in healthy new replantings; these are nonetheless essential every 4 to 5 years.

The banana industry in Côte d'Ivoire provides about 8 000 direct jobs, that is to say an average of 1.45 workers per ha and nearly 20 000 indirect jobs. Four production groups remain today, spread over about 30 plantations ranging in size from 25 to 900 ha in single blocks:

- SPD & Cie, independent company (7% of volumes);
- the EGLIN & SBM planting companies, subsidiaries of the Belgian group SIPEF (8%);
- the plantations of the SCAB group, subsidiaries of the French importer/riper Canavèse (17%);
- the SCB group, part of the Compagnie Fruitière group. SCB has its own plantations and manages production for several independent growers. It includes from this year the plantations of the CDBCI company, formerly a subsidiary of CHIQUITA (total: 68% of volumes).

Plantations and packing stations are increasingly in conformity with the various standards and certifications introduced this decade, that is to say GlobalGap, ISO 14001 and Tesco Nature Choice.

Total exports

Since the beginning of the 2000s, Côte d'Ivoire has exported 210 000 to 250 000 tonnes of bananas annually. More than 90% of this is shipped to the EU, where it accounts for 24% of ACP supply, that is to say 4.5% (2008) of total European imports. EU entry points in 2008 were Belgium (46%), France (38%) and the United Kingdom (16%). Its ACP status currently enables Côte d'Ivoire to export unlimited volumes duty free to the EU. At the initiative in particular of SPD & Cie for Mali and Burkina Faso, Côte d'Ivoire supplies the sub-region and the Mediterranean region with some 24 000 tonnes a year (2006 figures). Bananas represent about 10% of the country's exports in terms of value.

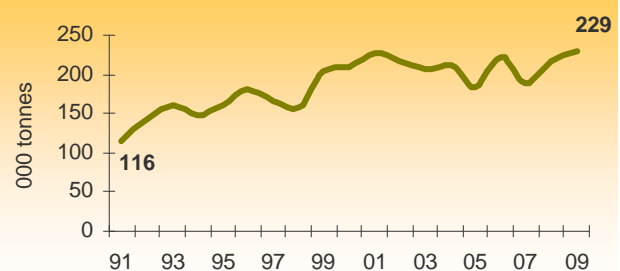
Logistics

Most of the access roads to the plantations are surfaced and in decent condition, with the exception of a few places in the extreme south-eastern part of the country where there are still laterite tracks. Transport of palettes to the port is thus handled with no major difficulty as a whole.

It is not possible to discuss bananas without mentioning the prime role played by pineapple in the synergy of export logistics in Côte d'Ivoire at a time when all producers loaded their produce on reefer ships managed first by the now defunct national company SITRAM, then by SITROCAB and, from 2003 to 2006, with the volumes shared with the AEL company. Now that the tonnages have been reduced (mainly in pineapple), producers still have two options:

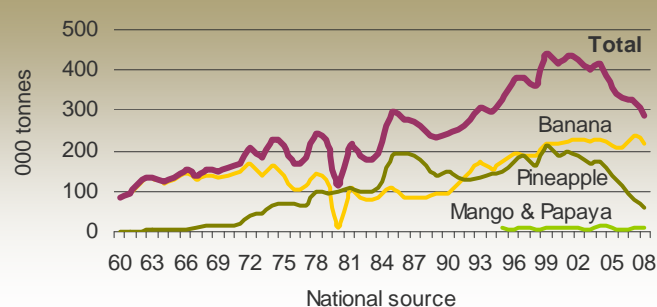
- AEL (Africa Express Line), a subsidiary of the Compagnie Fruitière group, is a shipping company founded in January 2002. It operates a fleet of reefer ships running weekly services from the port of Abidjan; depending on the year and the various rotations according to the volumes to be loaded, they can put in at the African ports of Douala, Tema, Dakar (5 days) and Agadir and the European ports of Portsmouth, Dover, Antwerp (12 days) and Port-Vendres (11 days). Palettes are loaded on the fruit quay in Abidjan, which should soon be equipped with cold storage facilities, equipped with cold rooms with capacity for 2 400 palettes.
- Other shipping companies have provided weekly container services since 2007; the main ones are CMA-DELMAS, MSC and MAERSK. Here, the palettes are packed in refrigerated containers at the production site and hauled to the Abidjan container terminal on lorries equipped with generators to supply the container refrigeration units. Power supply connection is possible in the port until loading on the container ships than serve southern and northern European ports.

Banana - Côte d'Ivoire - Imports by EU



Source: Eurostat

Fruits from Côte d'Ivoire - Exports



National source

Dessert banana...

production: 69 200 000 t

world trade: 13 850 000 t

Per
11.3
EU-27



Banana — United States imports

tonnes	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total, incl.	4 030 618	3 840 624	3 906 920	3 879 151	3 872 826	3 824 409	3 839 467	4 003 800	3 977 914	3 579 968
Guatemala	688 448	832 106	925 216	934 136	1 020 765	1 029 280	912 902	1 093 391	1 188 724	1 111 812
Ecuador	975 960	946 584	1 021 830	972 475	918 926	904 306	994 335	929 175	830 268	955 677
Costa Rica	1 361 405	1 082 088	901 485	976 078	865 298	822 731	927 361	1 036 897	874 424	544 435
Colombia	602 836	473 784	506 441	469 306	464 592	513 748	473 826	377 232	450 757	421 466
Honduras	275 603	381 540	449 171	432 145	507 914	453 011	422 905	482 732	505 578	390 456
Mexico	85 123	63 809	42 339	35 197	33 586	33 796	38 573	31 508	66 330	105 086
Nicaragua	1 906	28 198	29 702	41 620	41 502	38 067	30 465	32 788	31 142	24 911
Peru	302	5 656	23 196	13 756	12 384	22 345	25 056	17 848	22 511	19 677
Panama	28 707	16 187	259	215	612	2 019	7 516	502	8 046	5 380
Dom. Rep.	6 437	7 355	3 573	2 136	5 201	4 437	6 213	1 720	112	1 048
Venezuela	3 852	3 283	3 684	1 930	2 008	670	317	0	0	0

Source: US customs, code 0803002020 (excl. plantain)

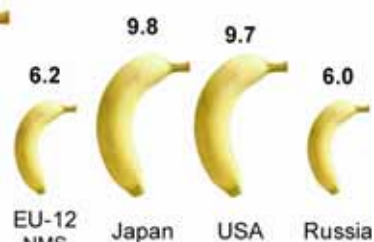
Banana — Japanese imports

tonnes	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total, incl.	1 078 655	990 554	936 272	986 643	1 026 014	1 066 873	1 043 634	970 594	1 092 738	1 252 606
Philippines	811 000	781 413	743 549	795 561	869 641	944 467	910 600	878 962	1 019 344	1 159 128
Ecuador	210 820	170 643	157 013	145 578	122 718	91 099	101 343	52 067	46 153	61 677
Peru	0	0	0	110	3 216	4 027	4 272	7 560	7 119	10 683
Taiwan	42 274	25 178	25 074	33 518	18 226	15 100	15 862	18 868	9 018	8 751
Mexico	1 394	2 044	2 562	3 057	3 303	3 739	3 948	4 611	5 411	4 810
Colombia	439	166	1 483	2 194	1 926	2 328	1 964	2 892	2 382	4 010
Thailand	1 332	1 513	1 252	1 793	2 204	1 794	2 373	2 089	2 279	2 317
China	3 428	5 740	3 814	2 736	3 609	2 844	1 580	2 249	810	699
Dominico	1 986	1 409	1 461	2 093	1 171	1 476	1 633	1 128	222	512

Source: Japanese customs, code 080300100

Banana - EU-27 Extra-UE import by entry point



Banana
capita consumption (kg/year)

NMS: EU New Member States
Sources: FAO, customs & Cirad

Banana
World production — Tonnes

	2008	Cavendish	Other dessert	Total
World	56 643 171	12 562 332	69 205 503	
India	14 581 900	4 000 500	18 582 400	
China	7 237 432	137 995	7 375 427	
Brazil	3 733 458	2 900 000	6 633 458	
Ecuador	5 200 000	120 000	5 320 000	
Philippines	3 300 000	993 000	4 293 000	
Indonesia	2 000 000	1 221 352	3 221 352	
Colombia	2 200 000	300 000	2 500 000	
Costa Rica	1 940 000	22 000	1 962 000	
Mexico	1 739 545	30 000	1 769 545	
Guatemala	1 500 000	10 000	1 510 000	
Egypt	1 056 999	2 453	1 059 452	
Thailand	736 000	224 000	960 000	
Cameroon	600 000	260 000	860 000	
Vietnam	555 000	202 400	757 400	

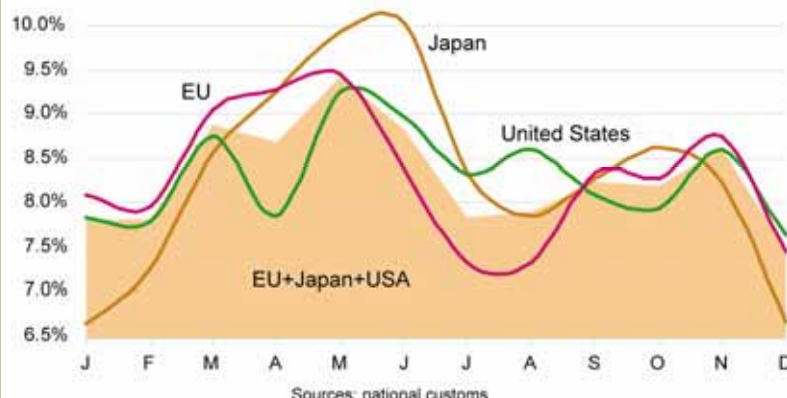
Sources : Thierry Lescot, FAO, douanes UE, US et Japan

Banana
World exports

	2008-09	tonnes
World	13 850 000	
Ecuador	5 473 094	
Costa Rica	1 714 333	
Philippines	2 024 000	
Colombia	1 737 000	
Guatemala	1 686 705	
Honduras	518 487	
Panama	188 000	
Canaries	361 500	
Cameroon	250 000	
Côte d'Ivoire	229 000	
Martinique	152 500	
Brazil	130 887	
Dom. Rep.	230 000	
Belize	73 200	

Banana
World imports

	2008-09	tonnes
World	13 850 000	
EU-27, incl.	4 513 077	
Belgium	1 278 823	
UK	903 846	
Germany	843 363	
Italy	532 201	
France	275 785	
United States	3 579 968	
Japan	1 252 606	
Russia	990 000	
Canada	471 330	
China	331 948	
Argentina	318 878	
South Korea	308 252	
Saudi Arabia	248 093	

Banana - Supply calendar
in % of annual imports

Banana — European Union imports

000 tonnes	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total	3 414	3 810	3 954	3 902	3 796	3 931	4 070	3 973	4 073	4 121	4 609	4 371	4 838	5 238	5 452	5 120
Total EU, incl.	585	657	685	811	785	730	782	768	791	755	750	648	642	554	568	608
Canaries	322	369	346	404	437	362	398	421	407	401	418	345	348	361	371	352
Martinique	152	188	250	277	240	259	271	234	264	244	246	226	221	129	125	180
Guadeloupe	82	63	61	98	74	84	88	89	95	86	59	54	48	38	47	56
Madeira	26	34	24	28	30	22	22	21	22	21	21	14	15	17	18	14
Greece	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3
Cyprus	-	-	-	-	-	-	-	-	-	-	3	6	7	6	4	3
Total dollar, incl.	2 102	2 387	2 466	2 395	2 393	2 520	2 528	2 475	2 555	2 579	3 074	2 959	3 290	3 847	3 964	3 555
Ecuador	549	632	686	738	568	695	674	705	829	800	993	1 059	1 026	1 186	1 349	1 278
Colombia	461	557	653	569	541	554	617	645	665	673	763	878	948	1 156	1 281	1 206
Costa Rica	622	564	604	603	640	663	657	634	686	725	840	623	825	971	902	753
Panama	299	416	311	358	417	422	389	348	307	303	368	281	311	354	295	183
Brazil	0	0	0	2	1	5	13	17	36	50	52	63	96	86	58	56
Peru	0	0	0	0	0	0	0	1	7	6	10	12	23	34	39	44
Mexico	0	0	2	3	7	12	1	0	0	0	7	3	1	0	2	22
Honduras	27	56	114	70	151	68	108	106	20	11	18	19	18	32	24	9
Guatemala	20	58	62	58	61	42	30	3	0	2	2	3	27	19	14	4
Total ACP, incl.	727	766	803	696	618	681	760	730	727	787	785	764	906	837	920	957
Dominican Rep.	86	75	61	49	56	42	60	86	97	109	101	145	177	206	171	254
Cameroon	158	165	167	157	116	161	206	216	230	293	262	253	259	222	280	250
Côte d'Ivoire	149	160	181	166	158	192	200	218	211	202	211	184	228	189	217	229
Belize	47	41	54	53	53	56	68	52	38	74	80	74	73	62	82	80
Surinam	33	28	26	29	21	39	34	29	7	0	19	35	45	59	66	57
Dominica	43	33	39	35	27	28	28	18	17	10	12	12	13	7	10	11
Ghana	0	2	3	3	4	3	3	3	3	1	2	4	24	34	46	36
St Lucia	92	101	107	71	70	66	73	35	49	33	43	28	36	30	39	33
St Vincent	32	48	44	30	39	38	43	31	33	21	24	15	17	14	9	8
Jamaica	76	84	89	77	62	52	41	43	41	42	29	12	32	18	0	0

Note: May to December only for Cyprus in 2004 / From 1995, EU-15 / From 2004 to 2006, EU-25 / Since 2007, EU-2007 / Source: Eurostat



The genetic diversity of banana in figures

Over a period of thousands of years, population migrations and movement of plant material have placed banana in very different ecological contexts in the various continents. Farmers have succeeded in profiting from the natural mutations resulting from vegetative multiplication. This combination of natural reproduction and selection by man since ancient times results in the present genetic diversity.

Bananas originated in South-East Asia as wild seminiferous plants. Natural crosses built up a large base of genetic diversity that still exists today. These crosses were the origin of the seedless varieties. These bananas have food qualities that soon interested man, who incorporated them in agriculture using their vegetative multiplication potential.

From the botanical point of view, the genus *Musa* is divided into seminiferous species with inedible fruits and parthenocarpic varieties with fleshy seedless fruits. The *Eumusa* section includes *Musa acuminata* (genome symbol: A) and *Musa balbisiana* (genome symbol: B). These are wild

species at the origin of the cultivated varieties.

The latter are classified according to their ploidy level and their genetic make-up. Some 1 200 varieties have been counted and classified around the world.

The inedible wild species with seed-containing fruits can be used for purposes other than human foodstuff (fibre, livestock feedingstuff, etc.). They are all diploid (AA and BB). About 180 have been counted to date, all from South-East Asia, but the census is not definitive (especially for the BBs). These fertile varieties are nonetheless important since they possess different levels of resistance to pests and diseases. They therefore form base material for the various present and future conventional genetic improvement and varietal creation programmes. Numerous cultivars have been bred by man. They are classified in groups according to their genetic make-up and then in sub-groups assembling the various cultivars derived from each other by natural mutation starting from a common genetic ancestor. Distinction is made between the following groups:

- diploid groups: AA (such as Figue sucrée or Frayssinette) and AB. These total about 290 cultivars grown mainly in South-East Asia where they originated;
- three triploid groups (650 cultivars): AAA, AAB and ABB. The subgroups of each of these distinguish between the dessert varieties richer in sugar at maturity, cooking varieties with fruits that are firm and not sweet even when ripe, and sometimes bananas for beer-making by fermentation of the pulp (East Africa).

Even if the plants within the same subgroup display only weak genetic diversity, they do have a great range of phenotypes, resulting essentially from mutations and many centuries of selection by man. This is the case of the Cavendish (more than 20 cultivars), East African highland bananas (more than 50) and central and West African plantain (more than 150) subgroups.

Although the intensive cultivation system used for approximately 25 percent of world production favours monovarietal production, it is important to remember that most production is based on less intensive family farming with stress on varietal mixing. This contributes to the continuing of selection and hence ensures the diversity of banana ■



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Photos © Régis Domergue

Banana — Estimated world production in 2008

Tonnes	Cooking bananas		Dessert bananas		Total
	Plantain AAB group	Highland bananas + ABB group + others	Cavendish	Gros Michel + others	
North America	0	4 000	7 890	100	11 990
South America	5 314 743	513 913	12 235 024	3 710 437	21 774 117
Central America	972 800	106 876	6 523 545	100 000	7 703 221
Caribbean	956 216	508 246	931 491	239 242	2 635 195
West and Central Africa	8 198 008	912 396	2 337 310	491 242	11 938 956
East Africa	1 137 036	14 670 783	2 467 884	680 703	18 956 406
North Africa and Middle East	31	9 667	1 913 543	9 316	1 932 557
Asia	1 299 184	12 058 539	29 486 825	7 260 348	50 104 896
Oceania	1 431	543 210	304 423	69 924	918 988
Europe	101	1 010	435 236	1 020	437 367
World total	17 879 550	29 328 640	56 643 171	12 562 332	116 413 693

Source: Thierry Lescot - Cirad after references, surveys, professional sources, FAO, etc.

Estimates in tonnes Production and commerce 2008 data (or 2007 data in italics)		Production				Exports		Imports		
		Cooking bananas		Dessert bananas		Total	Cavendish	Plantain	Dessert banana	Plantain
		Plantains AAB	Highland bananas + ABB + other AAB	Cavendish	Gros Michel & others					
North America										
	Canada				0	17	17	517 038	150	
	United States	4 000	7 890	100	11 990	524 526		4 252 525	262 604	
	Greenland				0			250		
	Saint Pierre & Miquelon							65		
	Total	0	4 000	7 890	100	11 990	524 543	17	4 769 878	262 754
		0.0%	33.4%	65.8%	0.8%	100.0%	11.0%	0.0%		
Central America										
	Belize	2 800	207	87 000	1 000	91 007	82 146	100	20	
	Costa Rica	80 000	5 176	1 940 000	22 000	2 047 176	1 869 218	30 000	24 122	195
	Guatemala	320 000	25 000	1 500 000	10 000	1 855 000	1 215 380	116 870	12 253	64
	Honduras	110 000	20 000	710 000	20 000	860 000	562 340	1 539	501	8 857
	Mexico	195 000	10 000	1 739 545	30 000	1 974 545	72 162	299	59	
	Nicaragua	90 000	30 000	95 000	5 000	220 000	31 142	23 553	2 553	195
	Panama	85 000	10 000	390 000	9 000	494 000	344 660	1 533		
	Salvador	90 000	6 493	62 000	3 000	161 493	5		53 807	65 501
	Total	972 800	106 876	6 523 545	100 000	7 703 221	4 177 053	173 894	93 315	74 812
		12.6%	1.4%	84.7%	1.3%	100.0%	64.0%	17.9%		
South America										
	Argentina			181 950	50	182 000	11		318 878	
	Bolivia	160 000	11 000	122 000	60 000	353 000	79 466	50		
	Brazil	453 350	30 000	3 733 458	2 900 000	7 116 808	212 210	25	8	
	Chile					0	27		178 268	
	Colombia	3 057 000	322 742	2 200 000	300 000	5 879 742	1 762 466	120 000	6 188	82 981
	Ecuador	480 000	26 168	5 200 000	120 000	5 826 168	4 726 878	190 000	1 550	
	Guiana	4 193	1 000	5 892	1 000	12 085		1 194		22
	French Guiana	2 200	1 000	3 000	1 500	7 700				
	Falkland Isl.								20	
	Paraguay		300	36 000	9 700	46 000	12 173		1 780	
	Peru	800 000	80 000	270 000	200 000	1 350 000	78 000	15 000	41	
	Surinam	8 000	1 384	82 724	6 000	98 108	65 812	10		200
	Uruguay					0	1		42 238	
	Venezuela	350 000	40 319	400 000	112 187	902 506	150	2 000		
	Total	5 314 743	513 913	12 235 024	3 710 437	21 774 117	6 937 194	328 279	548 971	83 203
		24.4%	2.4%	56.2%	17.0%	100.0%	56.7%	6.2%		
Caribbean										
	Anguilla			1					70	12
	Antigua & Barbuda	1	3	212	4	220			752	323
	Netherlands Antilles			10		10	10		1 734	1 121
	Aruba					0			1 400	580
	Bahamas	5	20	3 690	35	3 750			3 116	1 782
	Barbados	5	25	675	15	720			2 384	1 374
	Bermudas	400	30	363	50	843	160	179	869	
	Cuba	190 000	287 400	88 000	192 800	758 200	30		25	
	Dominica	3 600	600	13 500	500	18 200	11 000	1 129		
	Grenada	740	200	1 300	36	2 276	191	4		
	Guadeloupe	8 450	550	57 000	2 000	68 000	47 000			400
	Haiti	305 000	72 000	100 000	18 000	495 000	2	300		1 000
	Cayman Isl.	20	1	200	10	231			270	
	Turks & Caicos Isl.								487	100
	Virgin Isl. (USA)	250	50	1 300	100	1 700				1
	Virgin Isl. (UK)	70	10	260	20	360	73		40	27
	Jamaica	14 000	1 035	30 000	4 000	49 035	24	10		
	Martinique	15 000	3 000	135 000	3 000	156 000	125 000			3
	Montserrat	75	3	80	2	160			60	50
	Puerto Rico	109 000	2 000	100 000	2 200	213 200				600
	Dominican Republic	300 000	139 569	330 000	10 370	779 939	180 000	3 649		
	St Kitts et Nevis					0			420	500
	St Vincent & Grenadines	2 800	800	15 000	2 000	20 600	11 000	1 150	20	
	St Lucia	2 300	450	48 000	4 000	54 750	42 500	200		
	Trinidad & Tobago	4 500	500	6 900	100	12 000	25		3 053	580
	Total	956 216	508 246	931 491	239 242	2 635 195	417 015	6 621	14 630	8 453
		36.3%	19.3%	35.3%	9.1%	100.0%	44.8%	0.7%		

Estimates in tonnes Production and commerce 2008 data (or 2007 data in italics)		Production				Exports		Imports		
		Cooking bananas		Dessert bananas		Total	Cavendish	Plantain	Dessert banana	Plantain
		Plantains AAB	Highland bananas + ABB + other AAB	Cavendish	Gros Michel & others					
East Africa										
South Africa	20	120	344 982	2 500	347 622	159		22 076		
Botswana					0	15		5 589		
Burundi	70 000	1 368 679	131 321	280 000	1 850 000				10	
Comoros	3 000	11 000	40 000	2 000	56 000			19		
Djibouti			1		1			2 859		
Eritrea			10	1	11	20		15 000		
Ethiopia	100	1 000	259 000	959	261 059	2 574				
Réunion Isl.	10	500	7 200	4 790	12 500					
Kenya	305 000	200 000	290 000	80 000	875 000	53		8	10	
Lesotho					0			2 500		
Madagascar	15 000	12 000	210 000	15 000	252 000	59				
Malawi	130 000	40 000	140 000	10 000	320 000					
Mauritius	10	700	9 200	553	10 463			1		
Mayotte	640	6 400	6 000	1 000	14 040					
Mozambique	5 000	5 300	76 700	3 000	90 000	18 081				
Uganda	220 000	9 371 000	241 000	164 000	9 996 000	1 151	1 505		20	
Rwanda	80 000	2 450 000	120 000	100 000	2 750 000	31	1	30	10	
Seychelles	100	530	1 120	250	2 000			1		
Somalia	8 000	2 000	26 000	2 000	38 000	26	1			
Sudan		1 000	71 000	2 000	74 000	100				
Swaziland	5	4	10 000	1	10 010	8 075		3 110		
Tanzania	300 000	1 200 000	400 000	12 000	1 912 000	111	1	2		
Zambia	1	50	600	49	700	70		1		
Zimbabwe	150	500	83 750	600	85 000	4 030				
Total	1 137 036	14 670 783	2 467 884	680 703	18 956 406	34 555	1 508	51 196	50	
	6.0%	77.4%	13.0%	3.6%	100.0%	1.4%	0.1%			
West and Centra Africa										
Angola	120 000	10 000	156 000	14 000	300 000			20	100	
Benin	45 000	100	14 500	9 000	68 600		200	267	2 100	
Burkina Faso	100	10	15 000	10	15 120	372		1 155	5 600	
Cameroon	1 200 000	200 000	600 000	260 000	2 260 000	281 000	30 000	36		
Cape Verde	10	30	6 730	30	6 800			6		
Congo	61 000	4 000	35 000	8 000	108 000			11	2 000	
Congo (Dem. Rep.)	1 001 690	205 000	291 470	24 000	1 522 160	430	3 000			
Côte d'Ivoire	1 350 000	205 454	360 000	6 000	1 921 454	245 000	35 000	150		
Gabon	80 000	15 000	12 000	500	107 500			2	11 000	
Gambia	8	1	180	1	190			380		
Ghana	1 400 000	150 000	160 000	20 000	1 730 000	50 000	10 000		200	
Guinea	420 000	16 000	142 000	20 000	598 000	19	20			
Guinea Bissau	36 000	4 000	4 800	400	45 200	1				
Equatorial Guinea	28 000	3 000	8 000	1 000	40 000	4			9 000	
Liberia	43 000	5 000	40 000	10 000	98 000			1	14	
Mali	6 500	500	80 000	500	87 500			10 690	5 500	
Mauritania		1	70	1	72	2		1 526		
Namibia					0	2		2 563		
Niger			350		350			1 349	2 500	
Nigeria	2 296 000	83 000	263 000	85 000	2 727 000		1		1 000	
Centra African Rep.	75 000	7 000	90 000	30 000	202 000				2 000	
St Helena								50		
Sao Tomé & Principe	3 000	1 000	1 500	1 000	6 500				10	
Senegal	200	100	39 600	100	40 000	18		16 598	2 300	
Sierra Leone	23 000	2 000	9 000	1 000	35 000		1	10		
Chad			10		10			15 000	1 500	
Togo	9 500	1 200	8 100	700	19 500	15	2	2	100	
Total	8 198 008	912 396	2 337 310	491 242	11 938 956	576 863	78 224	49 816	44 924	
	68.7%	7.6%	19.6%	4.1%	100.0%	24.7%	1.0%			
North Africa & Middle East										
Algeria		1	198	1	200			10 811		
Saudi Arabia			1		1	4 379		248 093		
Bahrain			700	50	750	132		10 264		
West Bank		5	6 150	5	6 160			10 000		
Egypt	1	3 000	1 056 999	2 453	1 062 453	8 851		4 661		
United Arab Emirates			200		200	5 571		45 000		
Iraq			10		10			244		
Iran		3 000	69 000	3 000	75 000	26		20 727		
Israel		1 000	80 100	1 009	82 109	3 771		328		
Jordan		800	40 000	740	41 540	208		20 380		
Koweit					0	186		23 000		
Lebanon	10	600	88 500	590	89 700	43 965		478		
Libya		1	2	1	4			9 094		
sub-total (contd. p. 51)	11	8 407	1 341 860	7 849	1 358 127	67 089	0	403 080	0	

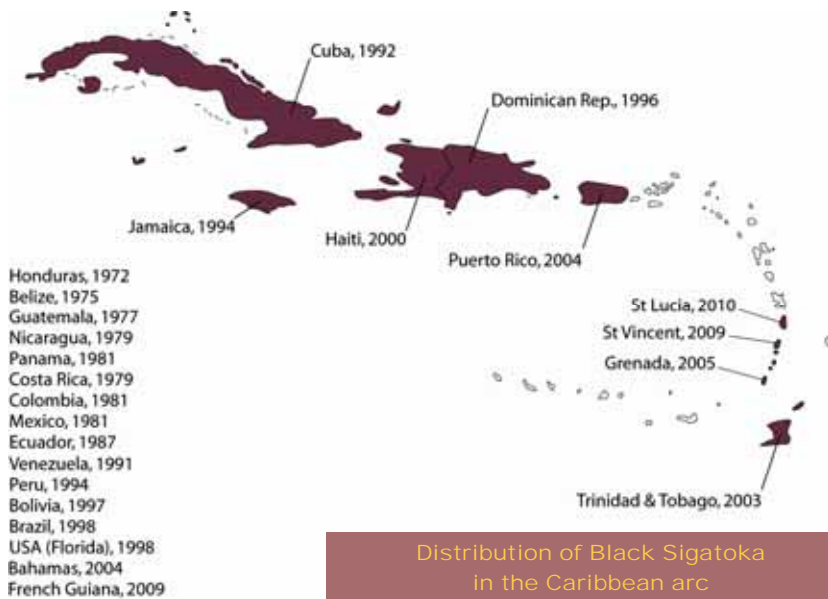
Estimates in tonnes Production and commerce 2008 data (or 2007 data in <i>italics</i>)		Production				Exports		Imports		
		Cooking bananas		Dessert bananas		Total	Cavendish	Plantain	Dessert banana	Plantain
		Plantains AAB	Highland bananas + ABB + other AAB	Cavendish	Gros Michel & others					
North Africa & Middle East		(concluding)								
	Morocco	500	213 712	500	214 712	79		17 239		
	Oman	500	27 900	492	28 892	390		8 956		
	Qatar				0	141		16 936		
	Western Sahara				0			2 500		
	Syria		790	10	800			192 704		
	Tunisia	10	55	50	115	20		60 000		
	Turkey	50	200 950	115	201 115	97		224 262		
	Yemen	20	200	128 276	300	76 200				
	Total	31	9 667	1 913 543	9 316	1 932 557	144 016	0	925 677	
		0.0%	0.5%	99.0%	0.5%	100.0%	7.5%	0.0%		
Asia										
	Afghanistan				0			7 933		
	Azerbaijan				0			13 875	18	
	Bangladesh	13 000	120 000	527 603	216 520	877 123	260	150		
	Bhutan	74	500	3 000	400	3 974		9		
	Brunei		40	690	70	800		213		
	Cambodia	10 000	45 000	50 000	25 000	130 000				
	China	60	667 215	7 237 432	137 995	8 042 702	40 044	331 948		
	South Korea				0	564		308 252		
	North Korea				0			20		
	Hong Kong				0	14 712		68 104		
	India	898 000	3 724 400	14 581 900	4 000 500	23 204 800	30 401	1		
	Indonesia	70 000	2 450 000	2 000 000	1 221 352	5 741 352	2 378	1	25	
	Japan			205		205	513	1 092 738	6 380	
	Kazakhstan				0			34 464		
	Kirghizia				0			3 090		
	Laos	1 000	7 000	22 000	18 000	48 000		669		
	Macau				0			1 175		
	Malaysia	40 000	210 000	160 000	120 000	530 000	27 121	129		
	Maldives	40	80	480	221	821		1 162	31	
	Mongolia				0			567		
	Myanmar	40 000	400 000	130 000	60 000	630 000				
	Nepal		20 000	20 617	12 640	53 257		4 867		
	Uzbekistan				0			1 165		
	Pakistan	2 000	26 000	113 378	18 000	159 378	7 933			
	Philippines	1 000	2 500 564	3 300 000	993 000	6 794 564	1 908 328	34		
	Singapore					0	142		37 087	
	Sri Lanka	162 000	312 000	45 920	10 000	529 920	230	25	3	
	Tajikistan							120		
	Taiwan		100	700	200	1 000	10 000		150 000	
	Thailand	60 000	980 000	736 000	224 000	2 000 000	22 226	100	6 882	
	East Timor	10	40	1 900	50	2 000			20	
	Turkmenistan							100		
	Vietnam	2 000	595 600	555 000	202 400	1 355 000	10 574	11		
	Total	1 299 184	12 058 539	29 486 825	7 260 348	50 104 896	2 075 426	138	2 064 801	
		2.6%	24.1%	58.9%	14.5%	100.0%	7.0%	0.0%	6 429	
Oceania										
	Australia	50	500	190 643	22 000	213 193	3		505	
	Fiji	100	2 300	4 000	100	6 500	130			
	Guam		145	205		350			1 000	
	Cook Isl.		100	60		160	22			
	Marshall Isl.								50	
	Solomon Isl.		90	330		420				
	Kiribati		3 800	1 600	400	5 800				
	Micronesia	350	840	1 250	10	2 450				
	Niue		20	140		160	120			
	New Caledonia	130	1 800	2 000	600	4 530			2	
	New Zealand					0			80 458	
	Palau								50	
	Papua-New Guinea	500	500 000	90 000	42 000	632 500	1 000			
	French Polynesia		2 300	3 100	500	5 900			3	
	Samoa	100	13 900	6 000	3 000	23 000	1			
	Samoa (USA)		230	500	60	790			1	
	Tokelau		10	5		15				
	Tonga	100	3 200	740	100	4 140				
	Tuvalu	1	165	110	4	280				
	Vanuatu	100	9 900	3 500	1 000	14 500	4			
	Wallis & Futuna		3 910	240	150	4 300				
	Total	1 431	543 210	304 423	69 924	918 988	1 280	0	82 069	
		0.2%	59.1%	33.1%	7.6%	100.0%	0.4%	0.0%	0	

Estimates in tonnes Production and commerce 2008 data (or 2007 data in italics)	Production					Exports		Imports	
	Cooking bananas		Dessert bananas		Total	Cavendish	Plantain	Dessert banana	Plantain
	Plantains AAB	Highland bananas + ABB + other AAB	Cavendish	Gros Michel & others					
Europe									
Azores			1 000		1 000				
Albania					0	100		20 112	
Germany					0	463 847	8 284	1 388 028	10 000
Andorra					0			600	
Armenia					0	2 304		17 164	
Austria					0	18 683		120 706	43
Belarus					0	463 847	8 284	1 388 028	10 000
Belgium - Luxembourg					0			600	
Bosnia Herzegovina					0	2 304		17 164	
Bulgaria					0	18 683		120 706	43
Canaries	1	5	398 000	5	398 011	371 000			
Cyprus			7 145	5	7 150	1 086		3 772	191
Croatia					0	20		54 737	280
Denmark					0	14 629	3	98 992	784
Spain			250	5	255	56 444	969	550 000	29 738
Estonia					0	161		13 297	
Finland					0	16 363		56 762	821
France					0	197 329	12 222	742 022	13 193
Georgia					0	1 239		11 402	
Gibraltar								150	
Greece		5	2 990	5	3 000	9 306	5	81 683	355
Hungary					0	7 233		105 246	957
Faroe Isl.					0			186	
Ireland					0	8 305	174	53 593	2 302
Iceland			1		1	11		5 516	
Italy			350		350	120 685	514	703 897	3 705
Latvia					0	527		15 453	2 631
Lithuania					0	6 185	724	25 429	5 831
Macedonia					0	42	6	14 756	106
Madeira	100	1 000	22 000	1 000	24 100	18 000			
Malta					0			4 941	188
Moldavia					0			11 064	154
Norway					0			73 200	
Netherlands					0		22 204	159 198	44 321
Poland					0	9 093		242 681	5 436
Portugal			3 500		3 500	29 841	79	163 318	1 041
Czech Rep.					0	56 919	47	147 396	1 450
Romania					0	361		117 714	9 362
United Kingdom					0	67 595	1 760	951 209	38 403
Russia					0	19 008		978 504	
St Marin					0			120	
Serbia & Montenegro					0			65 701	20
Slovakia					0	20 053	13	70 614	2 720
Slovenia					0	17 475		60 589	2
Sweden					0	30 904		190 344	465
Switzerland					0	8		78 219	
Ukraine					0	75		240 800	
Total	101	1 010	435 236	1 020	437 367	2 395 192	99 379	8 701 081	234 752
	0.0%	0.2%	99.5%	0.2%	100.0%	27.5%	1.1%		
World total	17 879 550	29 328 640	56 643 171	12 562 332	116 413 693	17 283 137	688 060	17 301 434	715 377
	15.4%	25.2%	48.7%	10.8%	100.0%	30.5%	3.8%		

Note 1: for EU member countries, imports excluding supplies from European production.

Note 2: differences between import and export totals result from re-exports between non-producer countries (intra-EU trade for example), the taking into account of two years (2008 and 2007) and the experimental nature of this work.

Source: Thierry Lescot of CIRAD, who used bibliographical research, surveys, professional sources, FAO, etc.



Sigatoka Leaf streak diseases a new threat for the banana production

Two main types of leaf streak disease endanger the banana industry: Black Sigatoka and Yellow Sigatoka. A new species called *Mycosphaerella eumusa* is even more aggressive than Black Sigatoka and seems to be spreading in Asia and the Indian Ocean. Black Sigatoka (also called black leaf streak disease or BLS) is caused by the fungal leaf parasite *Mycosphaerella fijiensis*.

Spread is from plant to plant in continental zones. The sea is a natural obstacle. Although the risk of natural dissemination of the spores of the fungus by wind cannot be ruled out, the spread of the disease from one zone to another is generally the result of uncontrolled movement of plant material. The disease is present in all the producer countries in Latin America, Africa and Asia. The Caribbean countries were long protected by their island geography. The new feature that strongly increases the risk for the Lesser Antilles is the spread of the disease in the Greater Antilles in Cuba, Jamaica, the Dominican Republic, Haiti, Puerto Rico, Grenada and Trinidad & Tobago. Its presence was confirmed officially in St Vincent in 2009 and in St Lucia in 2010.

The fungus destroys the foliage of banana plants. The disease appears in the form of small black streaks that soon develop into necrotic patches. The spread of lesions causes the total destruction of banana leaves before the bunch is harvested, with the fruits being at an advanced stage of ripeness making them unsaleable.

The process is exactly the same as that of Yellow Sigatoka, another fungal disease observed for about 60 years in all the continents. This is caused by the fungus *Mycosphaerella musicola* and led to rational chemical control set up by professionals in Martinique and Guadeloupe. Spraying is performed in relation to surveillance of the disease. Today, Yellow Sigatoka is controlled with a small number of sprays (five to seven per year). There are fundamental differences between the two leaf streak diseases. Unlike Yellow Sigatoka, Black Sigatoka can infect both export banana and plantain. As it spreads rapidly, it is also more difficult to control. Depending on the country and control facilities and techniques, control requires from 12 to more than 50 sprays per year.

Two control strategies

The export banana plantations in the major Latin American producer countries form vast agro-industrial complexes in alluvial plains. Given the size of plantations (several hundred or even several thousand hectares), contamination from outside is weak. There are no nearby centres of infection. The agroclimatic homogeneity makes it possible to organise and rationalise crop spraying for large complexes. The low cost of labour facilitates essential control work (regular deleafing).

In this context, the impact of spraying as a nuisance is not always taken into account by the large companies that do not hesitate to use systematic control strategies leading to more than 50 sprays per year. Application is at regular intervals and generally consists of contact fungicides (chlorothalonil, dithiocarbamate, etc.) that by definition are of low efficacy—treatment every 10 to 15 days—requiring a large number of sprays to control the disease. Systemic fungicides are sometimes used but always as a water-based emulsion.

CIRAD has developed a rational strategy using warning methods based either on disease monitoring in the plantation or on



Yellow Sigatoka

the observation of climatic descriptors (evaporation, temperature, etc.). It has been applied in particular in Guadeloupe, Martinique, Cameroon and Côte d'Ivoire. It consists of performing spraying only at the appropriate moment. The main objectives are:

- improving control efficacy while decreasing the number of sprays per year;
- limiting the risks of the selection of fungicide-resistant races;
- reducing pollution and increasing respect for human health and the environment (urban centres, rivers, water bodies, reservoirs, etc.).

The strategy is also based on the rational alternate use of systemic fungicides (benzimidazoles, triazoles, etc.) that are effective for a long time. Mixing them with a low volume (13 to 15 litres per ha) of petroleum oil (also fungistatic) extends the efficacy of each spray and therefore helps to reduce the number of sprays per year. These two types of leaf streak control strategy have similar efficacy. However, the consequences are totally different with regard to the

appearance of resistance in the fungus.

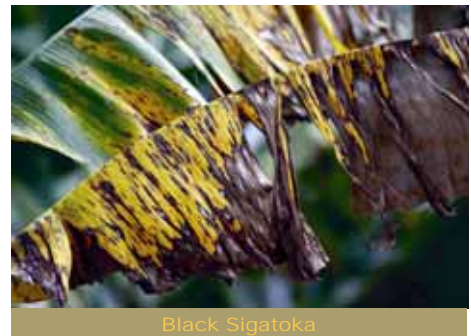
The systemic fungicides available on the market have a single-site effect on the pathogen, enhancing the inducing of resistant fungal strains when these substances are used in excess. In Central America, resistance to benzimidazoles was observed only two years after their first utilisation. This led to greater use of contact products, with 15 to 40 kg active substance per hectare per year. Warning techniques and a reduced number of sprays resulted in the appearance of resistance phenomena in Guadeloupe, Martinique, Cameroon and Côte d'Ivoire only after 10 or even 15 years of use.

New control methods are essential

Present control strategies cannot be used indefinitely. Thought should soon be focused on the adopting of an overall approach combining new hybrids resistant to the leaf streak diseases and cropping systems that make it possible to conserve this resistance.



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Black Sigatoka



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Banana quality defects in the field

Photos © Luc de Lapeyre, Marc Chillet,
Marie-José Rives, Fruidor

Pests



Flower thrips



Red rust thrips



Silver rust thrips



Snail damage



Damage by

Physiological defects and other imperfections



Double fruit
and deformed fruits



Scarring by a fruit tip



Scarring by a leaf



Scarring by guying cord



Sunscald



Chemical burns

Diseases



Speckle



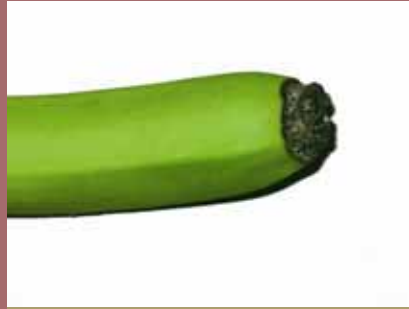
Red speckling at ripening



Deightonella speckle



Sooty mould on fruit stalk



Cigar-end rot

Banana quality defects at packing

Photos © Luc de Lapeyre, Marc Chillet, Marie-José Rives, Fruidor

Selection problems and miscellaneous defects



Fruit too thin



Fruit too short



Latex stains



Incomplete flower removal

Dehanding problems



Crown cut too short



Detached crown

Bruising



Bruising caused by impact during packing

Banana quality defects after transport

Photos © Luc de Lapeyre, Marc Chillet,
Marie-José Rives, Fruidor

Ripening problems



'Ship ripe' fruits



Unevenness after ripening

Storage problems



Chilling injury



'Green ripe' fruits

Storage diseases



Latent anthracnose infection



Wound anthracnose



Crown rot



Crown rot



Pointed crown



Knife wound



Flexed fruit stalks

Post harvest diseases

Storage diseases (wound anthracnose, ripe-fruit (quiescent) anthracnose and crown rots) strongly limit the sale of exported bananas. *Colletotrichum musae* causes both forms of anthracnose, while crown rots result from a larger parasite complex consisting of *C. musae* but also other organisms: *Fusarium*, *Verticillium*, *Botryodiplodia*, etc.

Distinction is made between two forms of anthracnose:

- **ripe-fruit (quiescent) anthracnose:** brown lesions develop on fruits after ripening and subsequently in the sales channel. This disease rarely has serious commercial consequences.
- **wound (non-quiescent) anthracnose:** broad brown lesions occur on fingers wounded during harvesting or packing. The symptoms are observed when fruits are unpacked after sea transport and have serious commercial consequences.

Crown rots are fungi that spread from cut surfaces when fruits are prepared at the packing stage. This damage is also visible after sea transport and has serious commercial consequences.

The fungi that cause post-harvest diseases are widespread in banana plantations and hence on bunches if these are not protected. In other words, control of infection begins when the inflorescence shoots at the top of the leaf cluster. Anthracnose results mainly from contamination by *Colletotrichum musae* in the field. It is not possible to detect infected fruit with the naked eye at harvesting but a test can be performed more than three weeks before cutting. Fruits are infected mainly during the first month of flowering. Spores are spread by water and develop on the organs when they start to decompose (old leaves, bracts and above all flowers). Control of the disease must begin in the field and then continue in the packing shed.

Hands can be contaminated by crown rot at various stages in the chain. This greatly complicates the implementation of control measures, but hand contamination by washing water is probably the main cause.

Chemical control of these diseases does not always give satisfactory results. Indeed, it is sometimes ineffective according to the production zone and the time of the year and resistance to fungicide has developed in the various fungal species involved. Finally, interest in developing methods other than chemical control is increasing. Indeed, these post-harvest treatments raise two crucial problems—the risks of residues in fruits and the processing of the fungicide preparations discharge near packing stations.



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Wholesale market prices in Europe

March 2010

					EUROPEAN UNION — IN EUROS				
					Germany	Belgium	France	Holland	UK
AVOCADO	Air	TROPICAL FUERTE	BRAZIL	Box			12.00		
			ISRAEL	Box	5.50			5.75	
			KENYA	Box			4.80		5.59
			PERU	Box		6.00	5.67		5.59
		HASS	ISRAEL	Box		8.75	8.40	8.25	
			MEXICO	Box			7.75		
			PERU	Box		8.75	7.81		
			CHILE	Box		8.75		6.88	
		NOT DETERMINED PINKERTON	ISRAEL	Box			6.37		
			ISRAEL	Box		5.75		6.50	
			ISRAEL	Box	6.00			6.13	
			ISRAEL	Box				7.50	
	Truck	HASS	SPAIN	Box	9.00		8.25		
BANANA	Air	RED SMALL	ECUADOR	kg				4.88	
			COLOMBIA	kg		6.15	6.00		
			ECUADOR	kg			5.30	4.17	
	Sea	SMALL	ECUADOR	kg			2.05		
CARAMBOLA	Air		MALAYSIA	kg		4.59	4.50	4.14	
	Sea		MALAYSIA	kg		2.85			
CHAYOTE	Air		COSTA RICA	kg		1.76		1.25	
COCONUT	Sea		COSTA RICA	Bag		18.00		15.50	
			COTE D'IVOIRE	Bag		12.50	10.40	7.31	
			SRI LANKA	Bag		9.00		15.00	
DATE	Sea	NOT DETERMINED MEDJOOL	TUNISIA	kg				1.77	
			ISRAEL	kg	6.60	6.60	7.75	7.35	
GINGER	Sea		THAILAND	kg	2.23	1.85	2.00	1.77	
			CHINA	kg	1.65	1.87	1.50	1.99	
GUAVA	Air		BRAZIL	kg			4.20	5.83	
			THAILAND	kg		6.25			
KUMQUAT	Air		ISRAEL	kg		4.44			
LIME	Air		MEXICO	kg			3.70		
	Sea		BRAZIL	kg	1.22	1.50	1.85	1.50	1.62
			MEXICO	kg		1.78	2.22	1.94	1.87
LONGAN	Air		THAILAND	kg				7.75	
MANGO	Air	KENT AMELIE	PERU	kg		4.55	4.65	3.83	
			MALI	kg			2.80	2.92	
			BURKINA FASO	kg			2.50		
			THAILAND	kg				6.50	
	Sea	NAM DOK MAI HEIDI	SOUTH AFRICA	kg	3.50				
			BRAZIL	kg	1.38	1.25		1.41	1.47
			BRAZIL	kg				1.50	
		ATKINS KEITT KENT	PERU	kg		1.75	2.00	1.57	2.10
			MALI	kg			1.30		
		NOT DETERMINED	COSTA RICA	kg	1.50				
			PERU	kg	1.25				
MANGOSTEEN	Air		INDONESIA	kg		5.50	8.40	6.25	
			THAILAND	kg				6.63	

					EUROPEAN UNION – IN EUROS					
					Germany	Belgium	France	Holland	UK	
MANIOC	Sea		COSTA RICA	kg		1.32	1.20	0.97		
PAPAYA	Air	NOT DETERMINED	BRAZIL	kg			3.10	2.88		
			ECUADOR	kg		3.14				
			MALAYSIA	kg					1.99	
	Sea	FORMOSA NOT DETERMINED	BRAZIL	kg		3.22		3.05		
			BRAZIL	kg				1.78		
			ECUADOR	kg		2.00		1.63		
			FORMOSA	BRAZIL	kg			2.50		
PASSION FRUIT	Air	NOT DETERMINED PURPLE	COLOMBIA	kg	5.00		5.25	4.75		
			ISRAEL	kg			5.50			
			KENYA	kg					4.25	
			SOUTH AFRICA	kg	5.50		5.50	4.44		
			ZIMBABWE	kg		4.25		4.19		
		YELLOW	COLOMBIA	kg	7.00	7.59	8.00	6.94		
PERSIMMON	Air		BRAZIL	kg				3.57		
	Sea		BRAZIL	kg		3.86	3.50			
PHYSALIS	Air	PREPACKED	COLOMBIA	kg	5.63		7.75	6.38		
	Sea		COLOMBIA	kg	4.58	5.41		5.42		
PINEAPPLE	Air	SMOOTH CAYENNE	CAMEROON	kg			2.05			
			GHANA	kg		1.50				
			GHANA	Box		9.00				
			MAURITIUS	Box		10.50		11.50		
			REUNION	kg			4.55			
	Sea	MD-2	SOUTH AFRICA	Box	10.00			10.00		
			COSTA RICA	Box	9.69	9.00		9.00	10.08	
			COSTA RICA	kg			0.95			
PITAHAYA	Air	RED	ISRAEL	kg			7.50			
			THAILAND	kg	5.67	6.67				
			VIET NAM	kg		5.50		6.17		
			COLOMBIA	kg			9.00	8.80		
		YELLOW	ECUADOR	kg		6.40		7.80		
PLANTAIN	Sea	COLOMBIA	kg			0.90	0.75			
		ECUADOR	kg			0.80				
RAMBUTAN	Air	ECUADOR	kg		6.25					
		INDONESIA	kg		6.75	8.40				
		VIET NAM	kg		6.25		6.38			
SWEET POTATO	Sea	EGYPT	kg			0.75				
		HONDURAS	kg		1.08			1.01		
		ISRAEL	kg	1.33		1.20		1.50		
		SOUTH AFRICA	kg				1.25			
TAMARILLO	Air		COLOMBIA	kg		5.95	8.40	5.40		
YAM	Air		BRAZIL	kg			2.00			
	Sea		BRAZIL	kg			1.64			
			GHANA	kg			1.20	1.00		

Charles De Wulf

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Independent consultant*

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