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Citruses

EU market on the move

European banana market:
Everything, and yet nothing, on the move

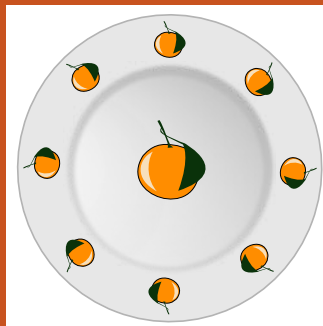
EU customs duty on the banana:
Regressivity and destruction of value

Southern Hemisphere grape:
Early slot undergoing a transformation



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Editorial



Fruit and vegetables industries basking in a current of optimism (at last!).

From 7 to 9 November 2018, Lyon hosted a coming together of science and the fruit and vegetables industries. Organised by the French inter-professional organisations Aprifel and Interfel, the discussions for a time managed to lift the veil of mysticism. For a few hours, beliefs and manipulations gave way to objective data. The three days of talks and discussions on nutrition and on fruits and vegetables above all served as a reminder of one thing: consumption of fresh fruits and vegetables is fundamentally, and unreservedly, beneficial to human health. Organic, conventional, local, from afar, round, square, green, yellow,... fruits and vegetables are superfoods across the board, whatever the cropping system used to grow them. And in addition, they lift our spirits (speech by Prof. Saverio Strangtes)!

Unfortunately, dinner time nowadays seems to be a militant action for health, and of course for the planet. By dint of rationalising food, we boil it down to the most basic functionality: providing the quality and exact number of nutrients required to replenish our strength and safeguard our lineage. And there is no point in blaming a given population because it does not eat what we think it should eat. This food nannying is doomed to failure. It does nothing to change the behaviour of those who need to do so the most. Worse, it fans food fears in the rest.

The dinner plate is not an apothecary's practice, still less the poison factory that some would have us believe. It is first and foremost a source of pleasure. Rather than avoiding "no-no" foods, or prescribing "must have" foods, let's opt to purchase for pleasure! In a word, perhaps it is quite simply time to bring back the thrill to the table.

Denis Loeillet

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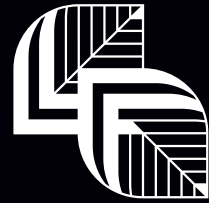
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*prepared by
Eric Imbert*



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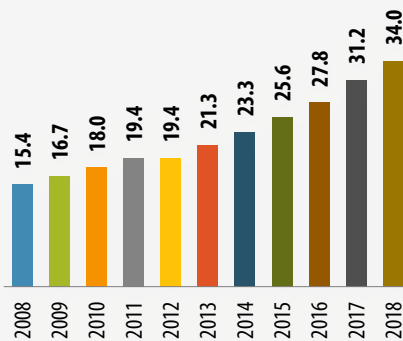
THAILAND

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INDIA



Cherry - Chile - Planted areas
(in 000 ha / source: USDA)



■ **Chilean cherry: Chinese market less lucrative.**

As a consequence of the rapid expansion in cherry surface areas in recent years, Chilean operators are slightly concerned, since prices underwent a big fall last year, especially in China, which takes in the bulk of volumes (85 % of the 185 000 t exported last year). However, the Chinese market remains highly lucrative for Chilean exporters compared to the other export markets, i.e. the USA (7 000 t), Taiwan (3 300 t), South Korea (2 600 t) or Europe (3 400 t). Nonetheless the increase in the supply could be slightly

more moderate this campaign, because of a negative alternate bearing effect after the very big yields registered last year, which were due to exceptional climate conditions. So the harvest, notwithstanding any climate problems, could reach only 209 000 t according to USDA estimates, a level close to or even slightly less than last year (+ 2 % on 2018-19 and 48 % above the 3-year average).

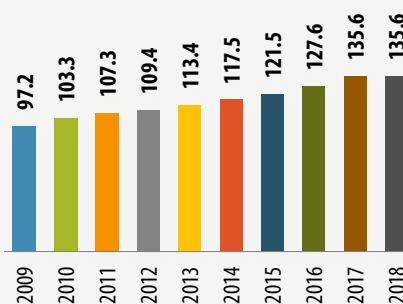
Source: Infofruit

■ **Californian walnut: a fine harvest, yet progress slowing.**

Walnut production is continuing to expand in California, though expansion of surface areas seems to be abating: 135 571 ha, i.e. another 2 % increase on 2017, as opposed to less than 100 000 ha before 2010. We are expecting a record harvest of 690 000 t (+ 10 % on 2017), with the late summer rains having boosted sizing.

Source: Infofruit

Walnuts - California - Planted areas
(in 000 ha / source: USDA)



■ **Spanish vegetables: still more pepper.**

The initial info on evolution of vegetable planted areas in Almeria reports stability for both the cucumber and courgette, while other produce appears to be on the up again this year, especially the aubergine and above all the pepper. The region's pepper cultivated area is reportedly even greater than for the tomato. The organisation "Junta Andalucía" reports expansion of tomato surface areas for the small segments, especially the cherry tomato and elongated cherry tomato, with diversification toward small pink fruits. Certain zones are also registering a rise in trussed tomato surface areas, while cultivation of round and elongated tomatoes is being scaled back. Furthermore, all these products had normal planting calendars, unlike last year when they were altered due to the heat. Only the winter cucumber was deliberately planted a little behind schedule this year.

Source: Infofruit



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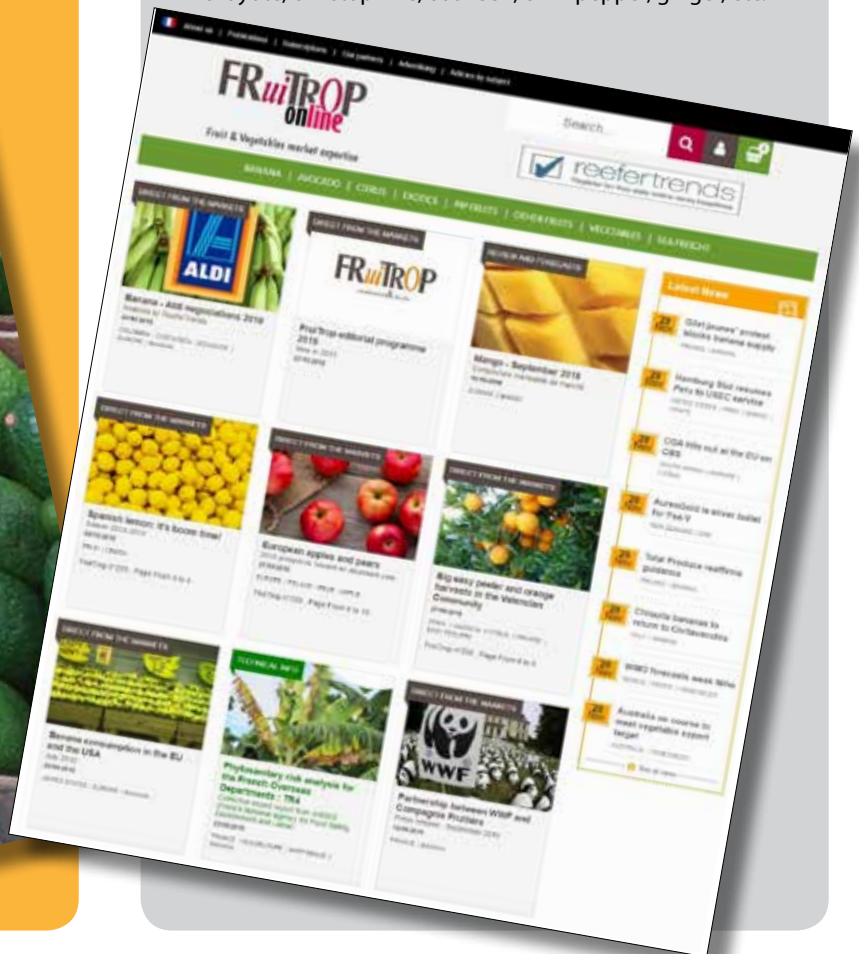
banana, avocado, mango, citruses, pineapple

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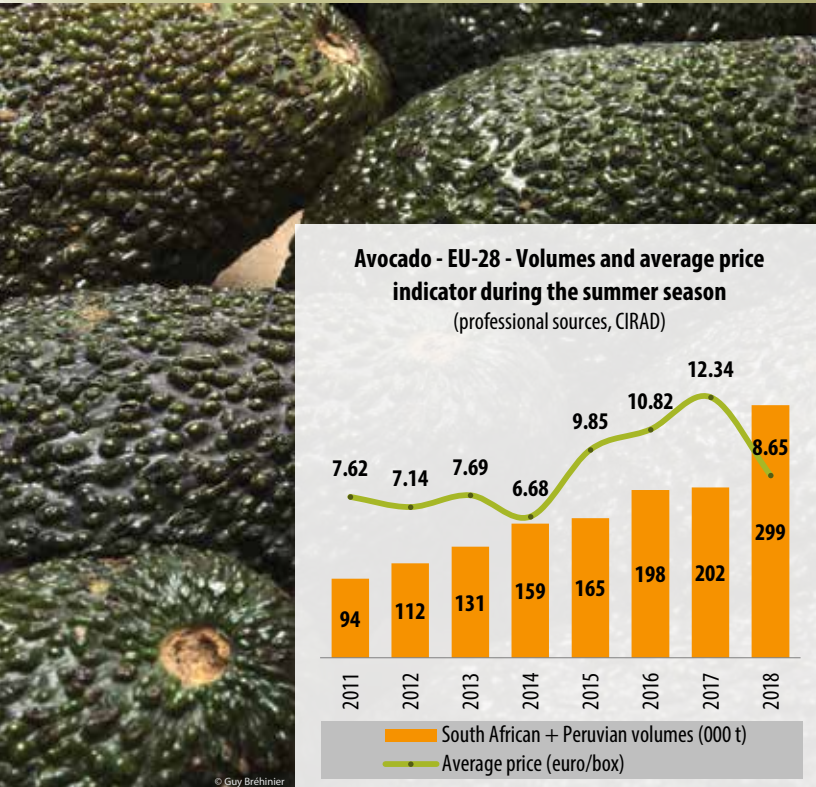
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■ **Avocado: a structural change in marketing calendar.** Analysis of the EU-28 avocado shipment figures from Peru and Africa during the 2018 summer season (still provisional data) reveals a 50 % supply rise, i.e. 100 000 tonnes! Which unsurprisingly makes this campaign in economic terms the worst in the last four years, with an average price of approximately 8.60 euros/4-kg box, down by 30 %. Rates registered a level below 7.50 euros/box during a record thirteen-week period (nine weeks from mid-June to mid-August, and then throughout October). There are two main trends to be taken away from this difficult season. On the one hand, there is the strong surge from Peru and South Africa, whose main outlet remains the EC market despite diversification efforts. On the other hand, there is the expansion trend in the marketing calendar of the summer origins. While the changes are still fairly minor at the beginning of the season, there is a major boom in volumes at the end of the campaign (one-month extension, with incoming shipments still very heavy until mid-October, for both Peru and South Africa): a structural change which is not without consequences on the winter market.

Professional sources, CIRAD

■ **EU-28 banana supply: smaller volumes in September.** The net banana supply to the EU registered a downturn in September 2018, with 474 000 tonnes (- 7.4 % from September 2017). This came after an uninterrupted five-month rise on the European market. On a twelve-month sliding scale (October to September), the market “only” rose by 2.3 % to 6 447 000 tonnes, i.e. even so a gain over one year of + 143 000 tonnes. Over the first nine months of 2018, the growth rate dropped to 1.5 %, for a total volume of 4 865 000 tonnes. The dollar origins saw another big rise: + 4.4 %. Conversely, ACP production (African or others) and European production nosedived, by 4.8 % for the ACPs and 9.7 % for Europe. Taking a closer look, only Colombia (the number two supplier) among the dollar origins was down for the year, with - 4.3 %. The ACP group suffered a rout, with only Côte d’Ivoire (+ 0.9 %) keeping its head above water, taking the place of number one ACP supplier from the Dominican Republic, and Ghana (+ 6 %). All the others fell, the Dominican Republic with - 4 %, Cameroon with - 16 %, Belize with - 8 % and Surinam with - 5.3 %.

Source: CIRAD



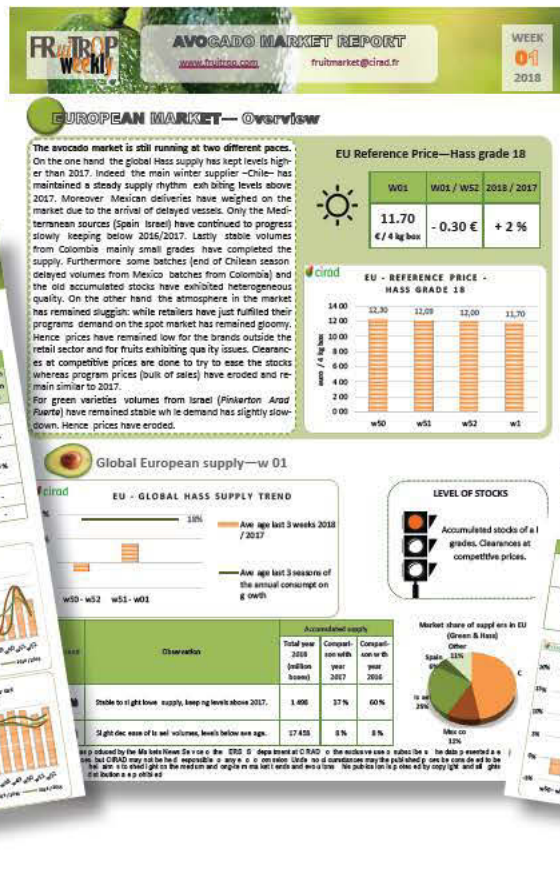
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■ **USA banana supply: organic, organic, organic.** There was a big downturn in the gross supply (excluding re-exports) to the US market in September 2018: - 11 %. We need to go back to 2012 to find as low a September. Over the first nine months of 2018, the net supply was down too, though by a mere 0.5 % (- 16 000 tonnes). Meanwhile the organic segment soared over nine months, with + 42 %! Its market share climbed to 13 % as opposed to 9 % one year previously. In terms of origins (conventional and organic bananas), Guatemala was down over nine months by 1.8 %, Costa Rica by 11.3 % and Honduras by 12.9 %. All the other origins were up: Ecuador with + 17.5 %, Mexico with + 12.7 % and Colombia with + 6.5 %, etc.

Source: CIRAD

Banana – EU & USA – Supply from January to September 2018 (provisional)				
000 tonnes	2016	2017	2018	2018/2017 difference
EU-28 - Supply	4 571	4 792	4 865	+ 2 %
Total imports, of which	4 061	4 345	4 461	+ 3 %
MFN	3 212	3 541	3 695	+ 4 %
ACP Africa	465	472	447	- 5 %
ACP others	382	333	320	- 4 %
Total EU, of which	509	447	404	- 10 %
Martinique	156	108	100	- 7 %
Guadeloupe	50	40	20	- 50 %
Canaries	289	284	268	- 5 %
USA - Imports	3 514	3 655	3 631	- 1 %
of which organic	277	327	466	+ 42 %
Re-exports	423	438	430	- 2 %
Net supply	3 091	3 217	3 200	- 1 %

EU sources: CIRAD, EUROSTAT (excl. EU production) / USA Source: US Customs



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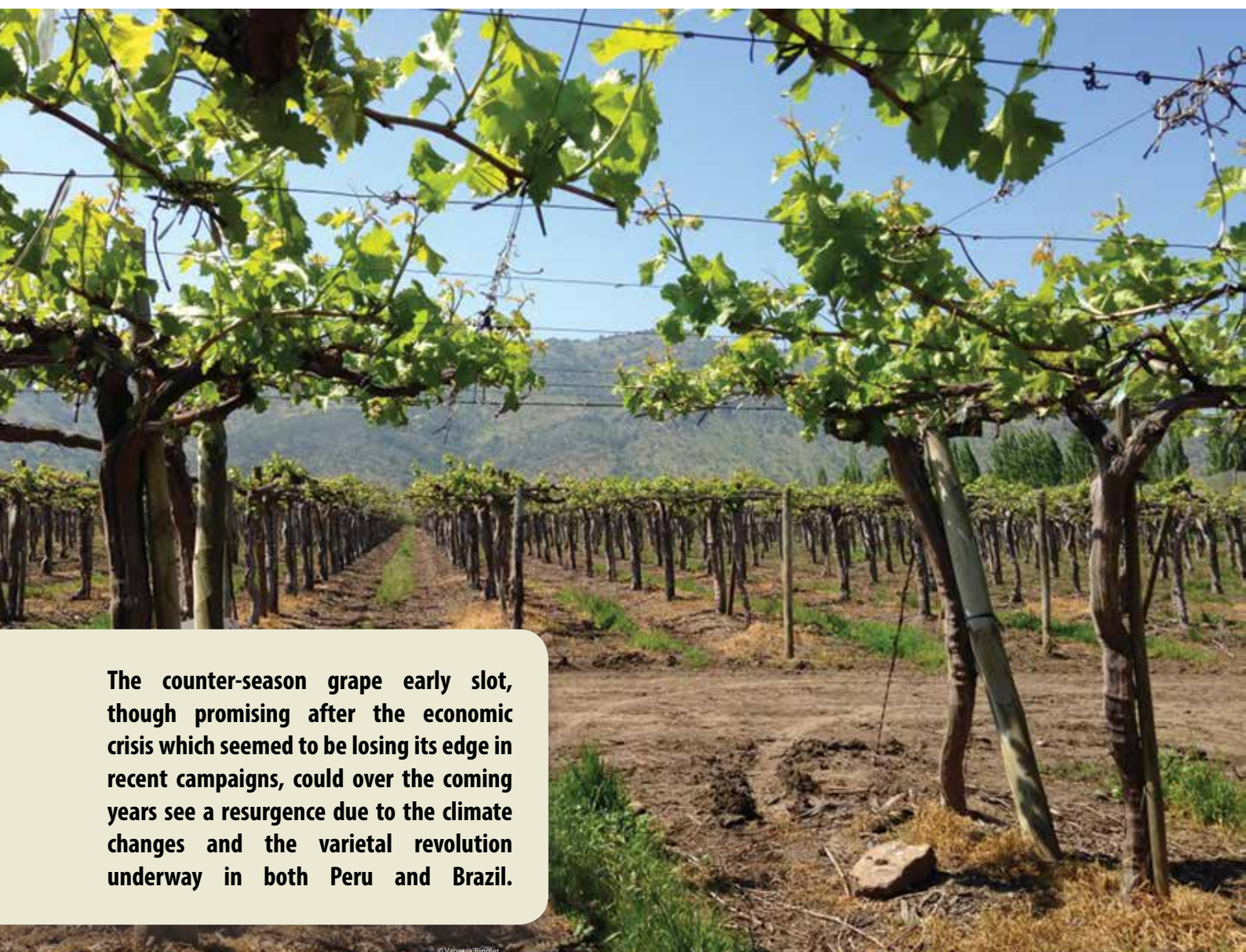


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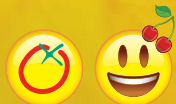
Southern Hemisphere grape

Early slot undergoing a transformation



The counter-season grape early slot, though promising after the economic crisis which seemed to be losing its edge in recent campaigns, could over the coming years see a resurgence due to the climate changes and the varietal revolution underway in both Peru and Brazil.

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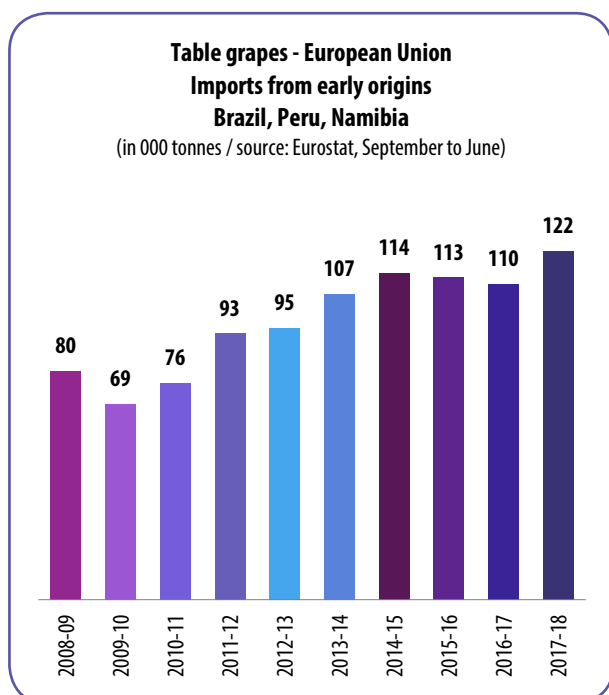


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**Table grape – EU-28 – Imports**

in tonnes	2017-18	2017-18 compared to	
		2016-17	Last 3 years average
Peru	62 885	0 %	- 5 %
Brazil	28 508	+ 21 %	+ 26 %
Namibia	18 919	+ 31 %	+ 30 %
Total	121 997	+ 11 %	+ 9 %

Source: Eurostat

A future with fewer seeds...

The early slot, still a promising period a few years ago for the counter-season origins thanks to strong demand from the North European markets (+ 50 % in 10 years if we add imports from Brazil, Peru and Namibia) is nowadays less lucrative. With competition from attractively-priced European seeded varieties, and confounded by the planting of late-season seedless varieties in Southern Europe, which are present until November in Spain and Italy, table grape imports from the Southern Hemisphere seemed to have rather stagnated in recent years. However, the panorama is not completely overcast, since this time of the year remains highly subject to climate vagaries in, including in Europe. These vagaries, against a backdrop of climate change, have hit harvests hard for the past two years in Europe, enabling the Southern Hemisphere early-season to origins register positive results again. Imports actually increased last year 11 % from 2016-17, reaching 122 000 t for these three origins. The production work conducted in parallel, to avoid licencing which is hindering producers in making a comeback, and to increase yields by means of new varieties fully adapted to the pedoclimatic conditions, should also bear fruit, whether in Peru or Brazil.

Peruvian varietal range undergoing profound changes

This good trend is essentially due to developments in Peru, where planting has increased greatly in recent years in the north of the country, in the Piura zone, to take advantages of the opportunities offered by this early slot. There has been strong growth since 2010, with surface areas doubling in Peru, going from 15 000 ha in 2010 to 30 000 ha today (albeit including stock for the processing sector). This rise has also been accompanied by a profound transformation in the varietal range, with a considerable surge in seedless varieties in recent years. Hence producers have uprooted some of the Red Globe planted area (- 700 ha in 2017 according to the professional organisation Provid) and planted seedless varieties since 2013 (+ 1 800 ha in 2017) under licences (especially from the USA and Spain). Hence while Red Globe was still largely dominant in 2012 with 80 % of exports, its share had fallen to 50 % in 2016-17 when the first seedless varieties entered production (Thompson Seedless, Sugraone, Crimson and Flame Seedless). It could quickly collapse with the arrival of new varieties (46 % of exports in 2017-18 alone), with in addition a balancing movement toward white varieties.



© Guy Bellmer

Producers now have a list of no fewer than fifty varieties to plant, the most iconic of which are Sweet Globe, Jack Salute, Autumn Royal, Sweet Sapphire, Sweet Celebration, Timpson, Cotton Candy or Arra 15, with now more marked interest in white varieties. However, adaptation of these international varieties to the particular pedoclimatic conditions of each region is sometimes difficult to achieve, especially in the north of the country. So operators are seeking land further south to develop their range. However, they are coming up against a shortage of land and the problem of water availability in the traditional production zones around Ica. That is why they are pinning their hopes on a new production zone which could emerge in the coming years to the south of Ica, toward Arequipa where an irrigation project is taking shape.

So the industry is full of optimism for the future, and hopes to be able to capitalise on the good potential expected this year. The initial production info hints at a recovery after the heavy rains last year attributable to El Niño. For the moment, the USDA is announcing a production potential of 658 000 t (+ 2 % on 2016-17), i.e. a record level for the origin. Exports could reach 380 000 t, which represents a 7 % increase in shipments. Imports into the USA and Canada, which take in the majority of volumes, could continue to grow. However, the warning lights are flashing in other destinations such as Europe, where the much higher sale price for seedless varieties compared to Red Globe is somewhat curbing demand, or Asia where local production, mainly comprising Red Globe, is very well established or even exported onto nearby markets.

A new tempo for Brazil

The seedless revolution underway in Brazil, but especially the more favourable market conditions last year (rains in Peru, smaller European supply) mean that Brazilian companies, which have already amassed good results, can look forward to brighter prospects. Hence after the inexorable fall in exports from 2008, going from 85 000 t to 30 000 t in 2016-17, between the effects of the economic crisis on the export markets and increased competition with the other South American countries, a slight bounce-back was finally observed in 2017-18 (44 000 t), which could herald a comeback by this origin. Since while this was a cyclical phenomenon for 2017-18, there are real structural changes underway in this country.

Hence the varietal range could see further changes. Although a first revolution had already been launched by producers with the introduction of seedless varieties such as Thompson Seedless, Festival and Sugraone



to diversify an export range still focused on Italia, it did not provide sufficient returns given the economic environment. Hence the new varieties, now developed locally by the “Embrapa uva e vinho” research centre, should give the industry a second wind, and better meet producers’ expectations. The programme launched in 2012 to develop mildew-resistant seedless varieties is starting to bear fruit, with results more than encouraging for the nineteen varieties tested, eight of which for the table grape. Besides a much smaller need for phytosanitary treatments, several of these varieties, in particular BRS Vitória (a black variety) and BRS Isis (a pink variety) launched in 2013, are providing two harvests a year, i.e. yields of 40 to 60 t/ha, while for conventional seedless varieties they are no more than 30 t/ha. So planting is underway, for the moment based primarily in Sao Francisco State (1 100 ha prior to 2017 and 460 in 2017), though it could also extend to other States, where it should also be well suited. For the moment, the planted areas have replaced traditional seedless varieties, though they could also replace some of the Italia stock, and even eliminate the fall in surface areas (- 4 % in 2017) ■

Cécilia Céleyrette, consultant
c.celeyrette@infofruit.fr

European banana market

Everything, and yet nothing, on the move



The psychodrama which shook the banana world in autumn 2018 tells us a lot about the relationships between the various links of the banana industry. In its desire to negotiate contract prices downward, Aldi is ultimately a mere indicator of all the malaise of an industry which is definitely not giving itself the resources to match its ambitions. The rational – yet individual – behaviour of the private operators are getting the upper hand over intelligent – i.e. collective – management of the industry. With all due respect to Schumpeter, the process of creative destruction is at a standstill.

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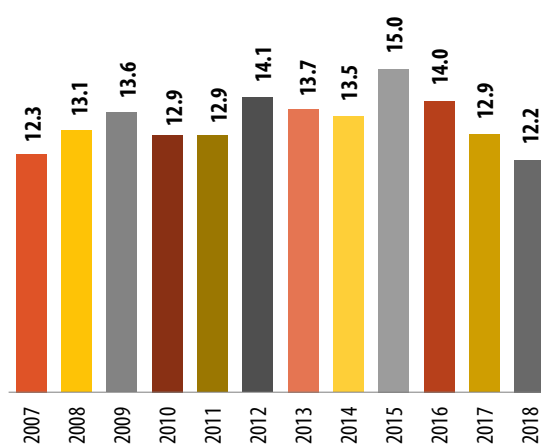


A brief recap of the situation: ahead of the 2019 annual negotiations, in October 2018 Aldi announced its aim to negotiate the 2019 contract prices downward (1), contrary to all expectations. The increasing energy prices, the fall in the euro against the dollar, increasing intermediate consumption prices, social and environmental requirements, etc., were all driving factors in favour of a rise in contract price. Yet Aldi was having none of that, on the strength of its purchasing capacity of 200 000 boxes per week, sure of its negotiating power, and finally a fine connoisseur of the world market. Hence it was looking for a purchase price reduction (2), in the knowledge that the world production potential is high and on the rise, hence it could play its “price maker” card.

Beyond the turn-up of Fyffes losing its contract with the German discounter, to be replaced by one or more “big players” at a considerably lower price than in 2018 (a precise review will be conducted in our “Banana prices” dossier in January 2019), we can draw lessons on the workings of the sector. Commercial operators, like the authorities or institutions, played their part in this sequence. They know their role by heart, and it is precisely due to their power.

First of all in the dollar production zones, States and national inter-professional associations (3), speaking out in unison, were aghast at seeing the European supermarket sector impose price reductions, while their producers are having to provide ever more proof of the high social and environmental quality of their fruit. This trick has made the headlines of the specialist magazines and local channels, indeed generating the belief or even hope, that it is through the banana that unification of the Latin American countries could be achieved. They were already imagining the rebirth of the UPEB (Unión de Países Exportadores de Banano), launched in 1974 yet practically stillborn due to the ill will of the US majors (4).

Banana - Germany - Annual import price
2nd and 3rd brands (2018 = 10 months)
 (in euro/18.14-kg box / Source: CIRAD-FruiTrop)



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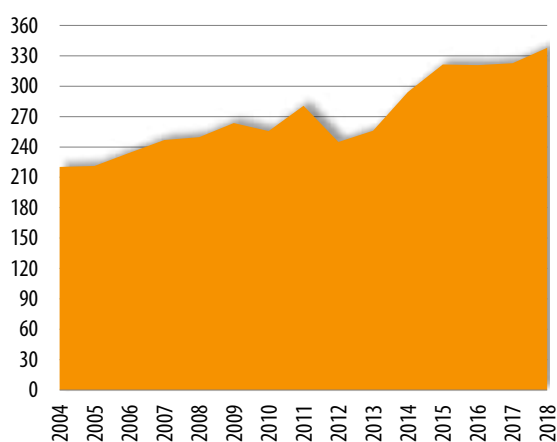
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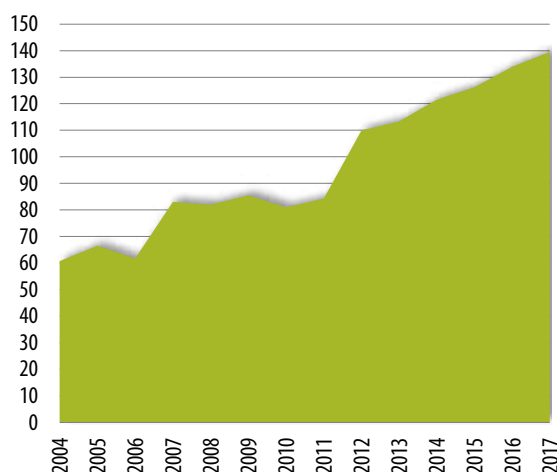
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Banana - Ecuador - Exports all destinations(2018: projection for December)
(in million boxes / source: AEBE)**Banana - Guatemala - Exports all destinations**

(in million boxes / source: Trade map)



Impossible coordination

However, a few weeks previously, on 6 September to be precise (5), Acorbanec (Asociación de Comercialización y Exportación de Banano), one of the two inter-professional associations structuring the Ecuadorian banana sector, demanded that its government ease its policy on new planting, in particular so as to be able to counteract Guatemala, which has made huge strides in banana development. What a great idea - promote a common, coordinated platform between dollar suppliers while the world market is in chronic overproduction! As we will see, joint management of the world supply for the benefit of the producers is not really on the agenda.

The right hand does not know what the left hand is doing is a very apt saying, since politics does not have much hold over private initiatives. In a liberal and deregulated world, responsibility for expanding or reducing production potential is down to the operators, not to the governments, and still less to the inter-professional associations. And in this respect, a supplier always believes it has the ability to hold on, economically speaking, longer than the neighbouring plantation or competitor concurrent based in another country. The roller-coaster ride of the pineapple in Costa Rica is a case study. Here, there is no need to go outside the country - the competition is domestic. The world market will need to take flight, with a boom in volumes, for a number of producers to shut up shop, and then, once the weakest have disappeared, the sector can move forward again. The economic world, shaped by GATT and then the WTO, is made that way. We might lament it, but no alternative is on the table. Hence the operators are adapting and many are disappearing. We are still awaiting the predicted effects for this type of situation by the theory of creative destruction, dear to Joseph Schumpeter, who claimed that the process of destruction leads to progress. In the case of the banana, we can only be dubious as regards any positive changes to which the cycles of creative destruction are supposed to lead.



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A do-nothing policy in practice

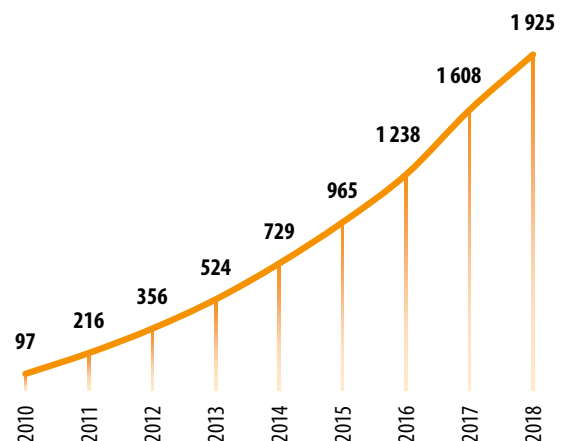
Dollar producers state that they cannot bear both a fall in prices and big investment in the social and environmental aspects. It is actually hard to contradict them in general without distinction, since efforts are being made but not by everyone and not across the board. Many of them, in the belief that they are protected by the labels and conveying the certifiers' pretence (6-7), have not taken large-scale action to really change the hand. The cropping practices are in many cases just as toxic for the environment and local residents, and the social expenditure barely manages to sustain the mirage. The real impacts of a voluntary policy, with the objective of changing the reality of the people and the environment, are hard to quantify, and the results are only visible in the medium to long term. So we are sacrificing impact for performance, especially social, for which it is easier to communicate on glossy paper. As regards ecological disorders (e.g. spread of whitefly), climate change is a convenient scapegoat, while above all the ecosystems cannot take any more.

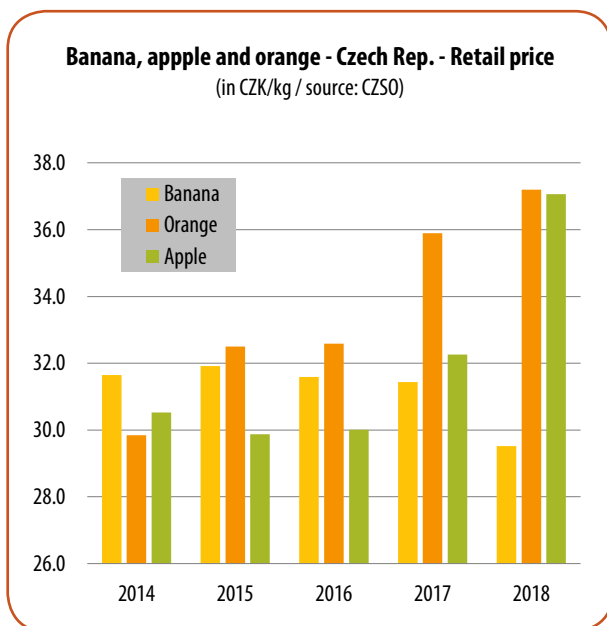
In-depth work on the theme of sustainability might have helped the origins gain some credibility with European purchasers (8). Furthermore, we might lament once more that Europe was unable to influence the fall in customs duty, negotiated within the framework of multilateral or bilateral agreements with the main dollar banana suppliers, toward investments to improve living standards of labourers and their families, or to change cropping practices thanks to the principles of agro-ecology. Especially since the mechanisms exist. The 190 million euros of aid to the ACPs have undergone a degree of conditionality within the "Banana Accompanying Measures" programme (BAM). For example, we might mention the case of house building in Ghana (9). Fourteen years ago, when discussions on Banana CMO were in full swing, **FruiTrop** (no.110, March 2004, pages 8 to 13) supported the proposal by the organisation Euroban (study conducted by Liz Parker and James Harrison) to adjust customs duty for each country according to their compliance with social and environmental criteria. I went a step further, proposing to allocate some of the reduction in customs duty to promoting virtuous practices in the producer countries. The EU would have had an active role in setting up sustainable industries (10). There would have been a considerable fund that could have been drawn on. Since 2010, when the first agreements took effect, reduction in duty has saved the main producer countries nearly 1 900 million euros!

Yet let's return to our shadow theatre. The intermediate operators, the importers and ripeners, were not involved in the dispute, not in the media at any rate. They played their own game. Pocket calculator in hand, they either followed Aldi, or deplored its mad accounting. They had a dream opportunity to single out the big bad German wolf, to reduce their own purchase prices from their own suppliers. From the role of victim, they switched to being the persecutor and vice-versa...



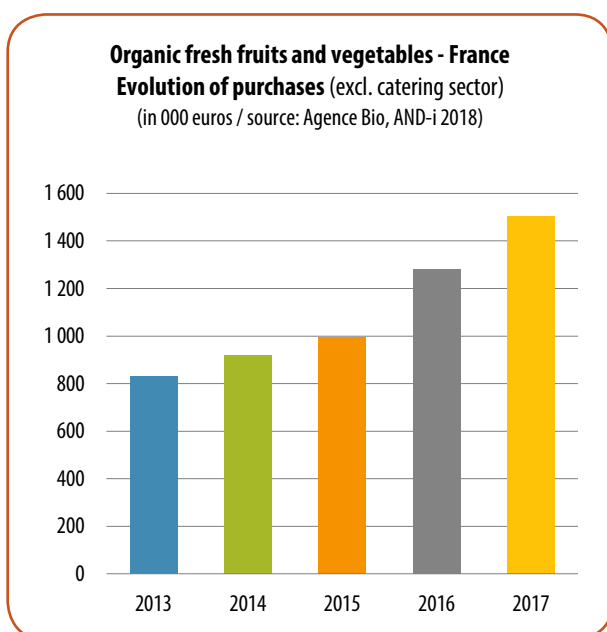
Banana - EU - Cumulative savings generated by the reduction in customs duty for 8 supplier countries: Ecuador, Colombia, Costa Rica, Panama, Peru, Guatemala, Nicaragua, Honduras
Assumption: duty maintained at 176 euros per tonne (2018 = January to August / in million euros / source: CIRAD)





Minor products funding the big sellers

For their part, superstore purchasers did not stick their heads above the parapets in the media. They are only very rarely shot at. Especially since it suits them also. They swear that they are not as perverse as Aldi, but you can guarantee that they took advantage in their negotiations with the upstream segment. Since, as Serge Papin, ex-CEO of Système U (a big French supermarket chain) identified, it is the minor products that fund the big sellers. Being tough on the weak and weak with the strong is a practice that the distribution sector understand very well. Especially since, in the fresh fruit sector, competition is lively, and there are a host of operators of relatively small size. It does not take very long to find an operator prepared to jettison prices to gain market share, clear up its quayside stocks or ripening centres, or find takers for its in-transit bananas.



Finally, let's talk consumers: the charlatans in chief, who are fond of the label "free from pesticide residues" (detectable ones at any rate), since it gives them the impression of eating healthy, but who could not give a damn about the cropping system, the natural environment or labourer exposure. The banana is first and foremost the crisis period fruit for an increasingly poor European world. So Aldi does the job by seeking to obtain a purchase price such that the consumer would seem to be the ultimate beneficiary (see next article). I might hear in response that the rapid progress of the organic sector is the proof of actual consumer compassion. Well no doubt it is, yet once again, first and foremost for themselves. Since in the organic sector, especially for imports, what is of most interest to the general public is food safety. They have grasped the sophistry of the food fear mongers very well.



A very sad comedy

So everyone is playing their part. And, as in any classic theatrical comedy, somebody is being cheated on. The character, the stupid husband, often attracts sympathy. He might even try to act as go-between, since he often forgives a lot.

Here, this role is played by the World Banana Forum (WBF), which has my full solidarity. While:

- Aldi has been a member since 2017 (11);
- one of the three work groups specifically involves distribution of value (12);
- at the last plenary session in Geneva (2017) (13), resolutions were unanimously taken against the downward trend in added value in the industry;
- it was observed by all that value would need to be boosted in the industry to reduce the impacts of pesticides and maximise social impacts...

...nothing is being done! The commitments, even moral, are definitively and exclusively aimed only at those who believe in them, and never at those who should adopt them. And to think I believed... doubtless a little too much ■

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References

- (1) <http://www.reefertrends.com/news/21138>
- (2) <https://www.welt.de/wirtschaft/article182954922/Preiskampf-Die-Banane-ist-Aldis-naechster-Suendenfall.html>
- (3) CORBANA pour le Costa Rica, AEBE pour l'Équateur, APIB pour le Guatemala, Augura pour la Colombie
- (4) <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.232.9216&rep=rep1&type=pdf>, page 90 à 94
- (5) <http://www.reefertrends.com/news/21011>
- (6) <https://www.somo.nl/looking-good-on-paper/>
- (7) http://www.peuples-solidaires.org/sites/files/actionaid/rainforestalliance_le_label_qui_cache_la_foret.pdf
- (8) http://www.europarl.europa.eu/doceo/document/E-8-2018-005148_EN.html
- (9) https://ec.europa.eu/europeaid/projects/improving-living-conditions-banana-farmers-ghana_en
- (10) For a more in-depth look, read the book by Alistair Smith "La saga de la banana" [The banana saga], and especially the chapter on price differentiation, page 236 to 239 - http://docs.eclm.fr/pdf_livre/342LaSagaDeLaBanane.pdf
- (11) <http://www.fruitrop.com/en/Articles-by-subject/Direct-from-the-markets/2017/Aldi-nord-and-Aldi-sued-to-join-the-world-banana-forum>
- (12) <http://www.fao.org/world-banana-forum/working-groups/economic/en/>
- (13) <http://www.fruitrop.com/en/Articles-by-subject/Economic-analyses/2017/3rd-World-Banana-Forum-Conference>

EU customs duty on the banana

When regressivity leads to destruction of value



Liberalisation of the European banana market has done nothing but destroy value. The producers, both from the dollar zones and other supplier countries, are the laughing stock. We eagerly await a genuine impact study of reduction and regressivity of customs duty on price evolution, distribution of value and market share. We need to put a stop to this rout!

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Côte d'Ivoire

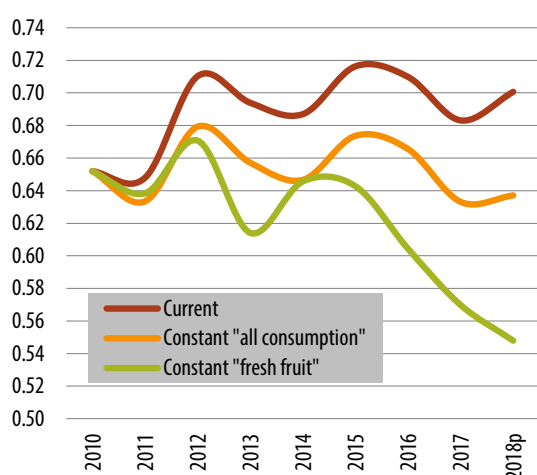




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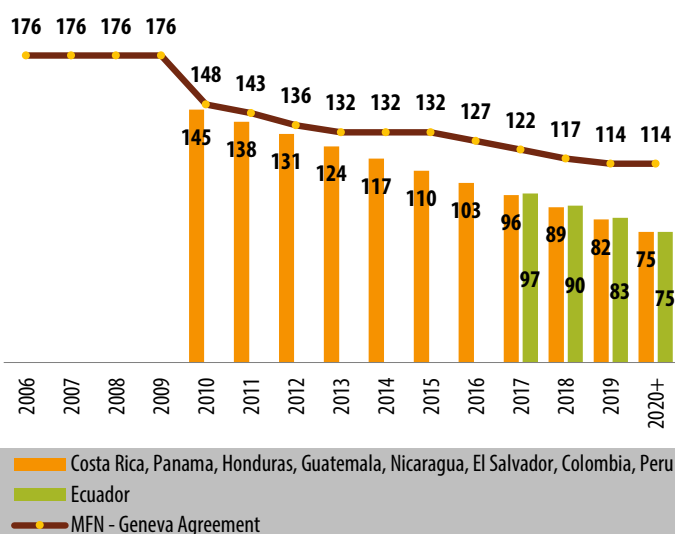
Banana - France - Import price on a current and constant basis

Note: "all consumption" and "fresh fruit" deflators
(in euro/kg / sources: CIRAD, INSEE)



Banana - EU - Third countries Customs duties excluding ACP

(in euro/tonne / source: CIRAD-FruiTrop)



It is little mentioned, if at all, but the deadline is approaching. For nearly all dollar banana imports, European customs duty will be brought down to 75 euros per tonne from 2020. In terms of lobbying, European production is getting organised, demanding ring-fencing of the POSEI aid budget, while warning that, if the customs duty were lowered further, the EU would need to assume its responsibilities in terms of stepping up support to its producers. ACP production, primarily African, is also mobilising, demanding that the reductions go no further than the current floor level of 75 euros, and claiming support on the principle of the BAMs (Banana Accompanying Measures). In every case, the EU is committed to reviewing its banana policy by 2020.

On the other side of the Atlantic, the signatory partners of the agreements will not remain silent. One of the hypotheses is that the dial will not remain frozen at this level of 75 euros. The fiercest supplier states want to engage another reduction cycle, and why not all the way to zero duty. The Aldi affair is for them proof that the tax pressure must be lowered to offset the fall in remuneration offered by the market (see previous article). Therein, they draw a direct link between fall in duty and better financial return for producers; which is evidently a whopper. The reduction in duty has not translated into increased revenue for the producers, and never will. A host of factors come into play, which can cancel, reverse or boost the effect of duty reduction. It is for that reason that it is extremely difficult to assess the impact of tariff reductions on the evolution of the market, in terms of either volume or value.

Over the period 2006 to 2015, a simplistic analysis could lead us to believe that the European green banana price held up, or even improved. A correlation, in fact accidental, could therefore be established between fall in duty and increase in price. Except that the climate vagaries reduced the supply at key periods, and that demand is strong given the crises in Northern societies. Conversely, the good performance of the euro over the period made the European highly attractive for dollar zone suppliers. Colombian exporters widely took advantage of this. All these factors completely distort the analysis. The fall in green banana prices over the following period (2016 to 2018) could just as accidentally be due to duty regressivity. Yet no, since while there is something in that, most of all we have the increase in world supply, boosted by the good prices and good production returns from the preceding period. The analysis complex because of the multiple factors. Finally, analysis on a current euro basis and constant euro basis leads to opposing results: green banana prices holding up or even increasing on a current euro basis, but falling on a constant euro basis. So sweeping conclusions do not lead anywhere. We hope that the Commission will help shed some light, by conducting a serious impact study.

1 900 million euros fall in customs duty

Yet let's return to the direct impact in terms of tax revenue. Firstly, we should recall that regressivity of customs duty was agreed in Geneva on 15 December 2009 (1) on a multilateral basis, and then confirmed and accelerated from 2013 for eight origins (Colombia, Costa Rica, Panama, Peru, Guatemala, Nicaragua, Honduras, El Salvador) with differing effective dates of the agreement. For example, the reduction took effect on 1st August 2013 for Colombia, and two months later (1st October) for Costa Rica. Ecuador joined the EU/Colombia-Peru agreement on 1st January 2017, but was part of the initial agreement in Geneva. In view of that, we have evaluated what we might call the gains or savings made by the eight active suppliers, with El Salvador long since having stopped exporting to the EU. It is a simple calculation. Starting from 176 euros per tonne, the customs duty on 1st January 2006 (2), we add (accumulate) the customs duty gain made month on month due to the reduction in duty. For example: 176 (rate in 2006) minus 97 (rate in 2017) equals 79 euros/tonne, multiplied by the volumes imported from Ecuador in 2017. The provisional calculation was made in August 2018.



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CMOB - Customs duty for third countries excl. ACP

		Domestic governance Common management - Single market																													
		1 July 1993																		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
																					Tariff-only system (euros/t)										
MFN																				148	143	136	132	132	132	127	122	117	114	114	
Brazil																				148	143	136	132	132	132	127	122	117	114	114	
Mexico *																				148	143	136	132	132	132	127	122	117	114	114	
Venezuela																				148	143	136	132	132	132	127	122	117	114	114	
Ecuador	Pre-CMOB																				148	143	136	132	132	132	127	97	90	83	75
Colombia																							on 1-8-2013	124	117	110	103	96	89	82	75
Costa Rica																							on 1-10-2013	124	117	110	103	96	89	82	75
Guatemala																							on 1-12-2013	124	117	110	103	96	89	82	75
Honduras																							on 1-8-2013	124	117	110	103	96	89	82	75
Nicaragua																							on 1-8-2013	124	117	110	103	96	89	82	75
Panama																							on 1-8-2013	124	117	110	103	96	89	82	75
Peru																							on 1-3-2013	124	117	110	103	96	89	82	75
El Salvador																							on 1-10-2013	124	117	110	103	96	89	82	75

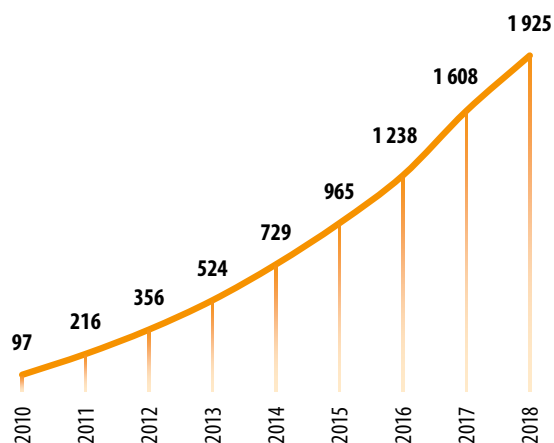
Notes: Excl. preferential treatment related to various GSP statutes / * Mexico: annual quota of 2 000 tonnes at €70/t
Graphics: CIRAD-FruiTrop



The cumulative saving since 2010 for the suppliers amounts to the modest sum of 1 900 million euros, i.e. an annual average of more than 200 million. Three countries (Colombia, Ecuador and Costa Rica) hold the bulk of the savings: 1 700 million. Colombia leads the way with a cumulative saving of 607 million, just ahead of Ecuador. For the latter country, whose currency is the US dollar, conversion into US currency is even more profitable, going from 599 million euros to 731 million USD. While the sheer scale of the sums speaks for itself, let's compare it to the support budget to other third country suppliers, e.g. the ACP states. For ten ACP countries eligible for aid, one year's reduction in customs duty for the dollar zone equates to the entire BAM programme for the ACPs; a programme which officially ran from 2009 to 2013, though still with payments in 2018, with a 190 million euros budget (3). So over the period 2010-2018, we have a ratio of 1 to 10 in terms of direct and indirect aid between dollar and ACP zones.

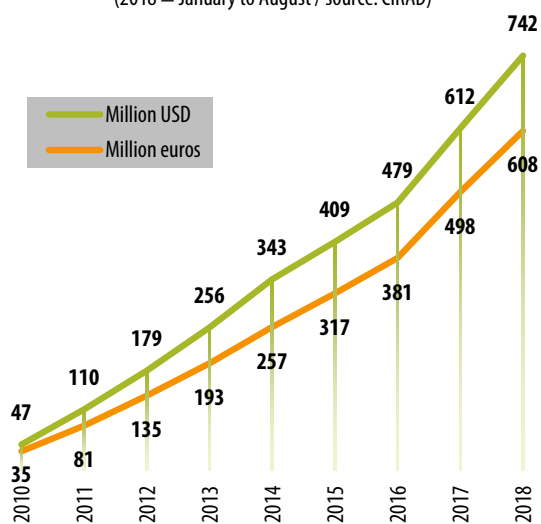
Especially since – and this is another difference – the sum of 190 million euros was not paid to the companies unconditionally. This aid should be incorporated in a strategic national plan decided on by the States, discussed or not with the companies in the sector, and focused on projects favouring productive investments (cable-ways, electrification, packing stations, tracks, roads, irrigation, etc.), but also aimed at improving the living conditions of the labourers and their families (housing, especially in Ghana), or the inhabitants of the production regions (Belize). Some of the aid has even been allocated to project completely outside of the banana sector (Organization of Eastern Caribbean States - OECS). In another example, some of the funds in Côte d'Ivoire paid for establishing village plantations, and ultimately just an estimated 50 % of the total (approx. 45 million euros) were allocated to the production sector. Finally, it is not direct aid to the industry, since the aid recipient operators were forced to co-fund the projects.

Banana - EU - Cumulative savings generated by the reduction in customs duty for 8 supplier countries: Ecuador, Colombia, Costa Rica, Panama, Peru, Guatemala, Nicaragua, Honduras
Assumption: duty maintained at 176 euros per tonne
(2018 = January to August / in million euros / source: CIRAD)



Banana - EU - Cumulative savings generated by the reduction in customs duty for Ecuador

Assumption: duty maintained at 176 euros per tonne
(2018 = January to August / source: CIRAD)



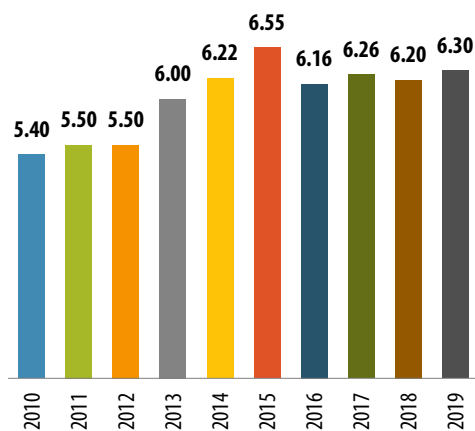
Who benefits from regressivity?

What of the 1 900 million euros budget allocated to the dollar origins? Just as it is difficult to grasp the effect of the tariff reduction on the market, it is also complicated to know how these competitiveness gains were distributed in the market. Bluntly, the question is: who benefits from regressivity? We can make a summary judgement in the case of the importer States and the European authority. They have seen a cut to their tax revenues, very useful in these time of chronic and dizzying public deficit. Which leaves us with the producers, the intermediate links, the distributors and the consumers.

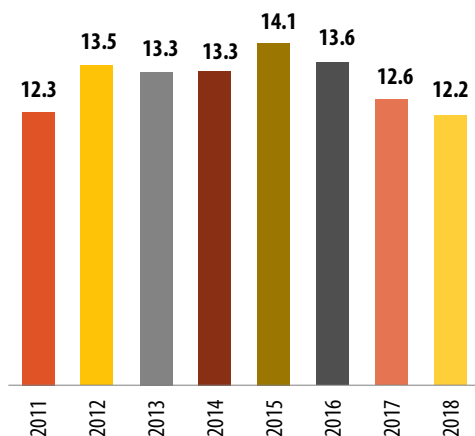
First let's look at the producers. Ideally, the reduction would have led to an increase in their revenue. The reduction in duty would have virtually given the industry a 1.8 euro/box gain (from 176 to 75 euros/t) over the entire period 2010 to 2020, and 1.7 euro/box between 2010 and 2019, i.e. approximately 2 USD/box at the 2018 exchange rate. Let's compare this gain to the Ecuadorian indicator of minimum price to the producers. It increased by 0.9 USD/box between 2010 and 2019. Except that the production cost also went up over the period. Taking into account this increase in the production cost (4), the producers saw their income collapse by 0.77 USD net per box. Although there are many hypotheses in our calculations, and a much finer analysis would be needed of each cost item, the fact remains that the difference between a potential 2 USD gain (due to the reduction in duty) and 0.77 USD net loss due to a far too partial revaluation of minimum price is sufficiently great to conclude that this is not the link that has benefitted from the trade agreement.

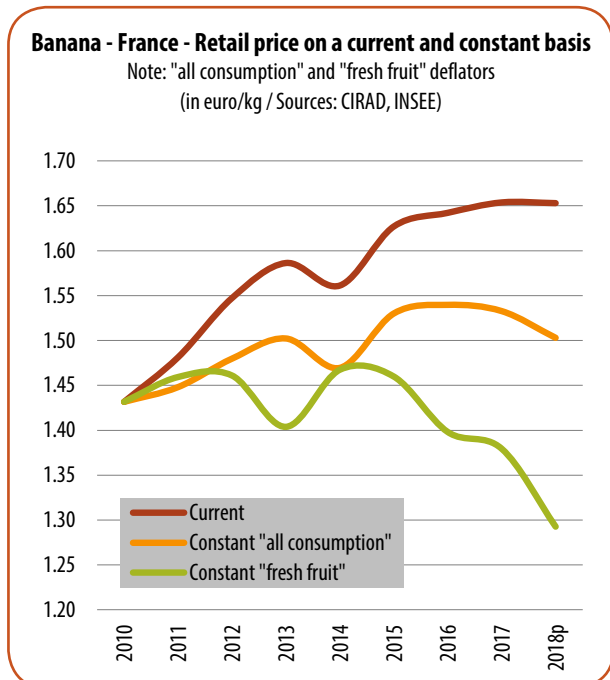
Hypothesis two: the intermediate links have seized the bulk of the savings from the reduction. As for the other subjects, this is complex to answer, as the situation changes over time. Dynamically, we find that between 2010 and 2015 the import price (Cirad European barometer) went up by nearly 2 euros per box, a gain that was practically wiped out between 2016 and 2018. Furthermore, if we evaluate the impact of inflation on the import price (e.g. France), we find that the product, at best, maintained its value (- 2 %) in 2018 compared to 2010. In other words, the price of the banana at the import stage has barely move with the rate of inflation. Yet it has not managed to follow the revaluation of the fresh fruits sector. The banana is blatantly lagging behind its direct competitors, with - 16 %. So it is difficult, over the long term, to believe that the importers have taken advantage. The hypothesis is valid up to the year 2015 inclusive, but it does not hold up to the decrease in green banana price in the second half of the period studied. Furthermore, the Aldi episode confirms this persistent sluggishness on the green banana market. For a good many operators, the limit of the threshold of profitability has been reached. The refusal by Fyffes to take part in Aldi's tender is the proof of this.

Banana - Ecuador - Reference minimum price
(in USD/41.5 to 43-pound box / professional sources)



Banana - EU Barometer - Import price (2018 = 10 months)
(euro/18.14-kg box / source: CIRAD)





So ultimately could it be the consumers and/or distributors who have been the beneficiaries of the reduction in duty? If it were the consumer, it would be good news for the European executive, which since 1993 has always promoted this objective of attractive prices for European households. So what can we conclude? In view of the data available, it is difficult to know whether the European distribution sector has been greedy, or actually frugal. Every country, or even each chain, has developed individual strategies. For a few years, in January, **FruiTrop** (5) has attempted to decrypt behaviour in this respect. For 2012 and 2013 for example, we demonstrated that the retail trade had once gotten a free ride, taking advantage of the revaluation of the world banana rate, and other time increased its margin while the world price was stagnant. In 2014, in a collective wave, the European distribution sector cut its retail prices, sometimes drastically. In 2015, prices evolved in disarray. France, Italy and Germany were in the group of countries which increased their prices. In 2016, France continued to do so, as did the traditional German distribution sector, unlike the discounters.

Finally, in the example of France, if we apply to the retail price (e.g. France, source RNM) the same principle as the import price, we can conclude that the constant retail price (i.e. deflated by the general consumption price index) rose by 5 % over the period 2010 to 2018, going from 1.43 euro/kg on average, non-weighted by volumes, to 1.50 euro/kg in 2018 (provisional). Things are very different if the adopted deflator relates to the fruits section only. In this case, we can observe, as for the import price, a very big deterioration in the retail price, which fell to barely 1.30 euro/kg.

Producers piling loss on loss

The conclusion of this brief analysis, which would require an in-depth work to clear up some uncertainties and hypotheses, is relatively simple: there is not a single link in the chain which has captured the full saving from the reduction in customs duty. The intermediate links have overall limited their losses. At certain periods, importers and ripeners have taken advantage of regressivity. For the production sector, the results are clearer, and much less dependent on the uncertainties due to the calculations and quality of data. It is the fall in its revenue which is fuelling the process of destruction of value in the European banana industry. The producer is the big loser in this case.

It is an interesting evaluation work, which the national authorities or operators in the dollar supplier countries should pursue and consolidate. They have the means to do so, since they have access to a wide range of data: cost structures, input prices, productivity, exposure to the euro-USD-national currency exchange rate, wages, etc. They would rapidly acknowledge the obvious: the switch to a purely tariff system, associated with duty regressivity, is a catastrophe for the rev-



enue of the weakest players in the industry, a never-ending race to the bottom. Aldi has found one or more lowest-bidding suppliers, since there is always somebody willing to take things further. That is what the Ecuadorian professional organisations are rebuking Guatemala for, indeed.

Except that the Aldi psychodrama has not helped open up in-depth discussion, quite the opposite. It has restricted debate to the area in the dumbly neo-liberal spotlight: producing more and for less than your competitor, and ignoring the social and environmental characteristics of your product; in short, very much keeping to "business as usual". It has also of course advocated the complete liberalisation of the market, fantasising about the revenue released in this way (customs duty) which would automatically be captured by the upstream segment of the industry. As we have concluded, while the downstream segment is limiting its losses, it is the upstream segment that is the only one paying the bill.

What a fine example of a turnaround in value in the space of a decade. The US market, which seemed the worst place on Earth to export your bananas, the best being regulated Europe, is making a comeback. And Ecuador, losing market share there and making gains in the EU, also complains about it fairly often. The USA and Canada are becoming the Promised Land, where bananas can earn proper value, while Europe is plunging into deregulation, with one of the consequences for the banana industry being impoverishment. On one side of the Atlantic, Uncle Sam and his highly organised and structured market, some would even say highly oligopolistic; and on the other a market sinking into the shadows of destruction of value. Soon, there will remain just 75 euros per tonne of customs duty, i.e. 1.6 USD/box at the current exchange rate. Should we not seize the opportunity to rediscover the benefits of market structuring, including via regulation? ■

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Notes

- (1) FruiTrop banana focus – January 2017 – page 47.
- (2) 1st January 2006: date of the last major reform of the Banana CMO, which brought a switch from a quota system to a solely tariff system.
- (3) The BAM programme, in a way, took over from the SAS (Special Assistance System 1994-1998, with a budget of 78 million euros) and the SAF (Special Assistance Framework 1999-2008, with a budget of 376 million euros). The number and list of beneficiary ACP States has changed over the years.
- (4) CIRAD experimental "Banana cost" index. Index 100 in 2010, 129 in 2018 (hypothesis), and 134 in 2019 (conservative hypothesis).
- (5) FruiTrop no.229 – January-February 2015 – page 66.

A report by
Eric Imbert

Citruses

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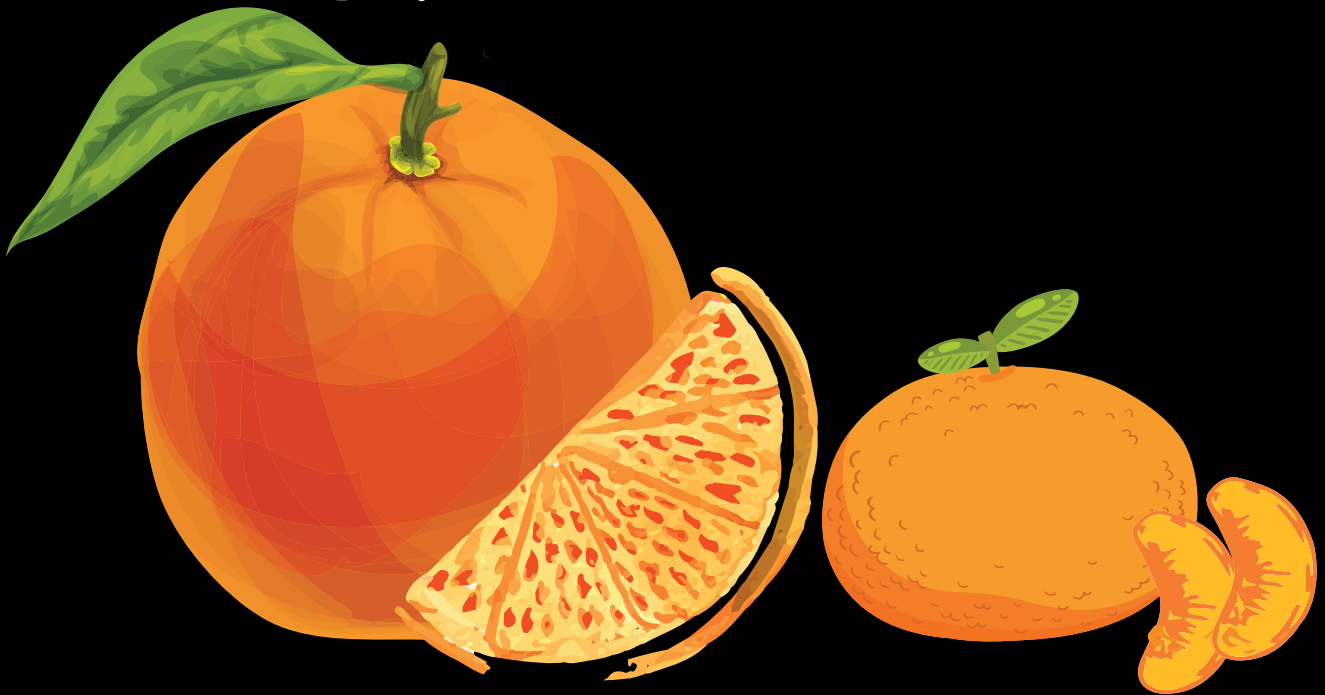




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Citruses

European winter market

Community market on the move

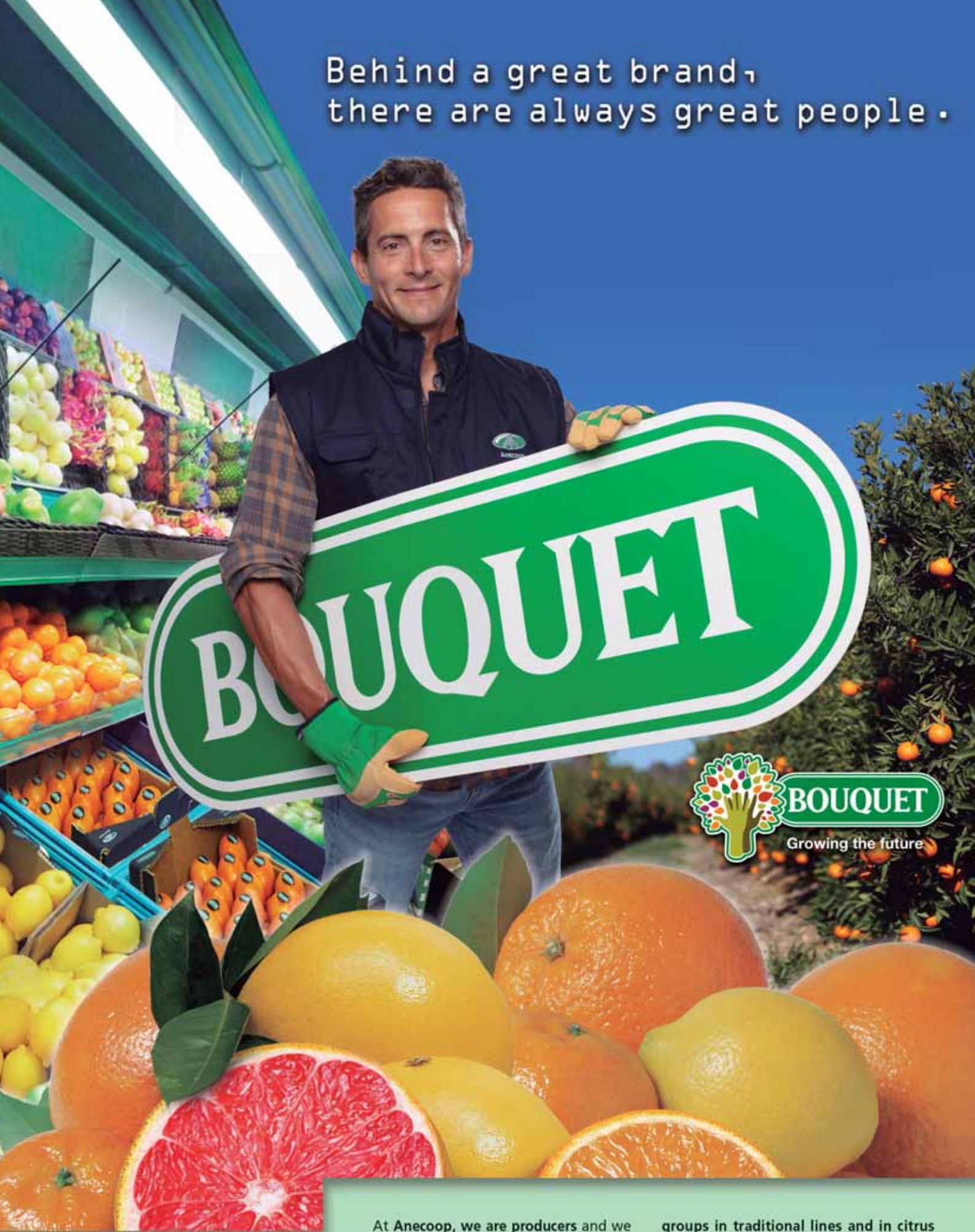
by **Eric Imbert**, CIRAD
eric.imbert@cirad.fr

Is the EC citrus market static? This view, widely held even among professionals, is actually far removed from the reality of a sector on the move. Taking volumes marketed in the EC as the sole indicator, they have risen by approximately 250 000 t over the past five years, and by 500 000 t in ten years (excluding locally sold local produce).



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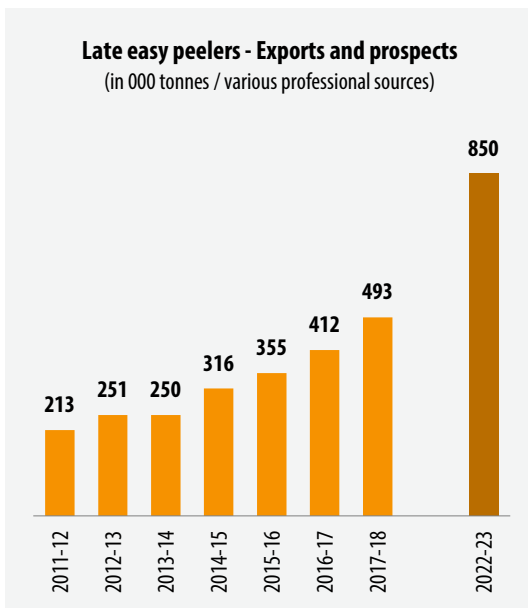
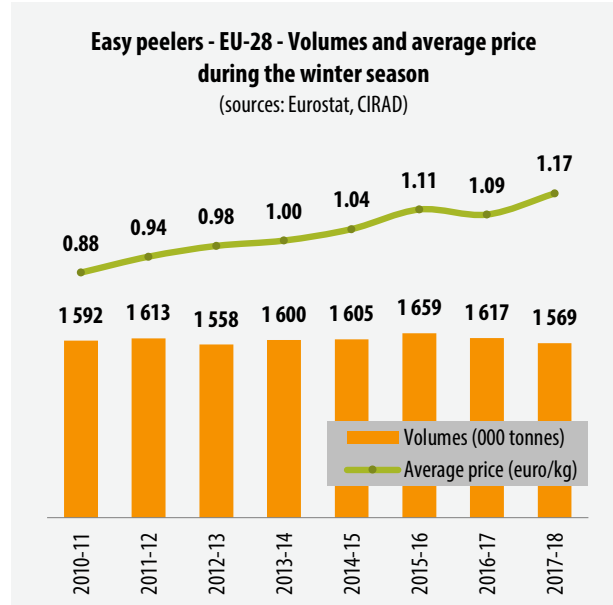


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Easy peelers

On the move, especially at the end of the season

From the perspective of marketed volumes alone, the EC easy peelers market seems to have changed little: gaining only 100 000 t in ten years with a total supply approaching 1.6 million tonnes during the winter season. And yet, what a change (or even a revolution) in terms of varietal range and trade calendar! The qualitative substitution strategy has made it possible to replace standard varieties with more coloured and tastier cultivars. Furthermore, the season has extended over time. The trading weeks gained at the start and especially the end of the season are particularly important for the economic balance of production, up against a mid-campaign which remains very busy and often unprofitable. Our average market price barometer, indicating a big increase, shows how much these changes have been a breath of fresh air for the upstream segment. These changes are still in progress.



Toward a distinct increase in the supply during the latter part of the season

It is in the late-season slot that volumes will continue to see the most considerable growth in the coming years, with production of top-end varieties such as Nadorcott, Orri or Tango coming to the fore. The market has hitherto been highly receptive to these high-quality varieties, marketing of which can extend until May, as our average price barometer indicates. However, while the rights holders for Nadorcott and Orri have adopted a cautious attitude of freezing the cultivation area after a fine period of growth, there is no surface area quota for Tango. The absence of such a firewall is a danger for the upstream segment, which has made big investments in these licenced varieties. If we take the surface areas of Orri, Nadorcott and Tango alone currently in place in Spain, Israel and Morocco, production should rise by at least 350 000 t when these areas have reached maturity. True, there are margins for consumption growth in the late slot, and alternative markets to Europe are starting to open up (Asia, North America), yet these volumes already seem large. Fruitrop will offer a comprehensive review of the perspectives of this market segment in its January edition.



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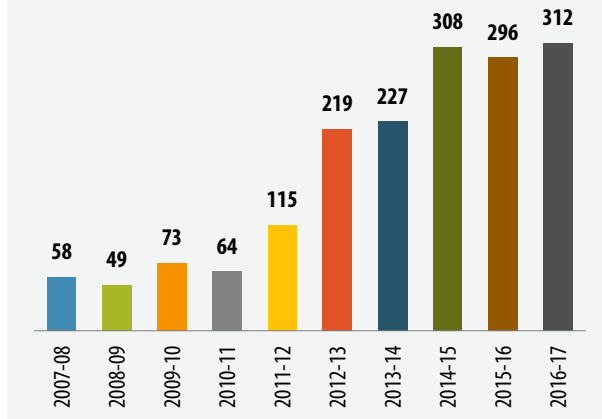


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Early clementines - Spain - Planting of Oronules, Orogro, Arrufatina, Clemenubi, Marisol, Capola, Nero, Cultifort
(in thousand certified plants / source: GVA)

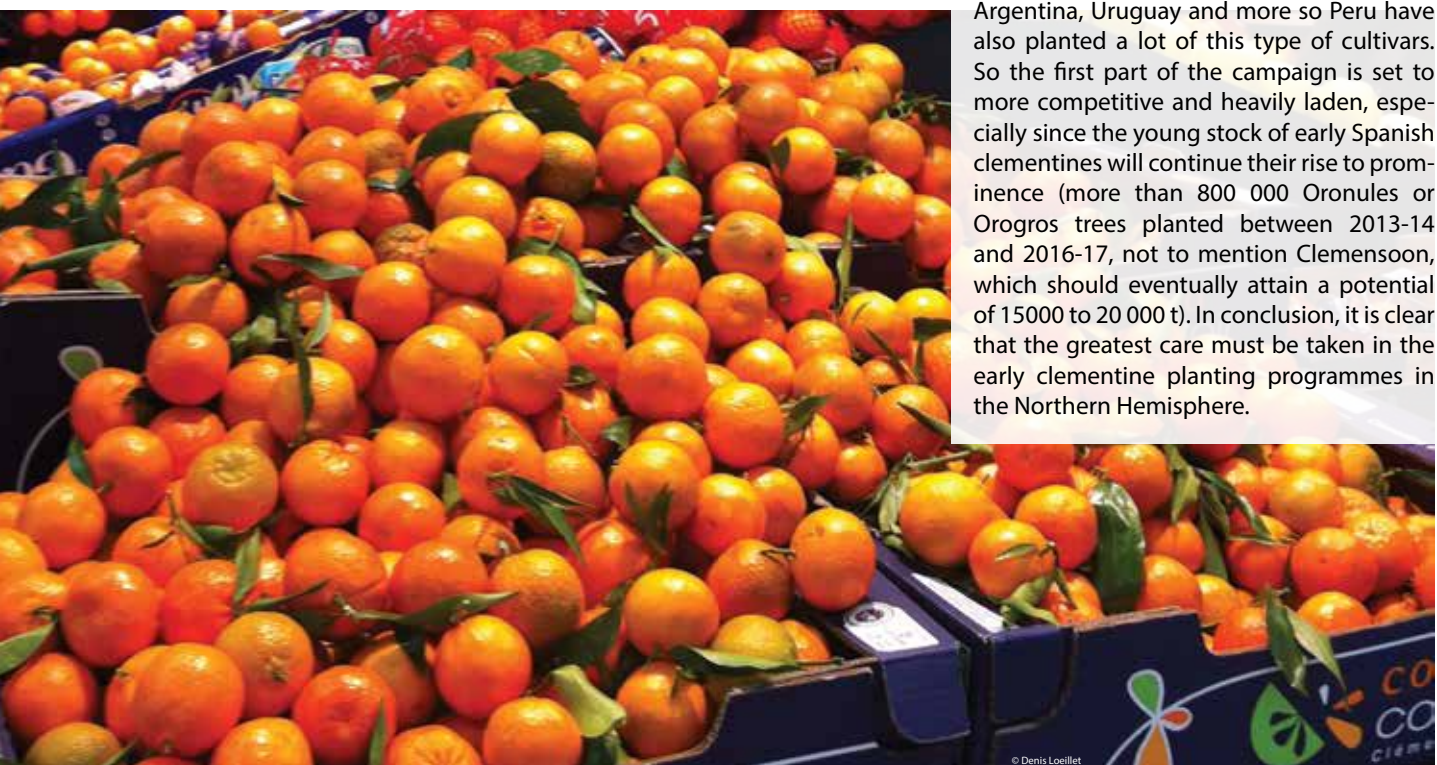


Clementines – Spain – Marketing calendar

S	O	N	D	J	Production trend
	Clemensoon				= ↗
	Clemenubi				↗
	Orogro				↗
	Marisol				↘ ↘
	Oronules				↗
	Arrufatina				= ↗
	Nules				= ↗

Questions over the market prospects at the start of the season

While the dual strategy of extending the calendar and qualitative substitution has been successful at the end of the campaign, the beginning of the season has a much more mixed record. The medium-term prospects seem fairly grim for the Mediterranean players, primarily Spanish at this time of year. On the one hand, climate change is having a two-fold adverse effect. The Indian summer, which seems to be becoming the rule with increasingly summery Septembers and Octobers, is weighing down on citrus consumption in general, and is adversely affecting the quality of early produce (pale coloration, small sizing, etc.), already challenging in terms of agronomic management in a normal climate context. On the other hand, the Southern Hemisphere supply is coming to prominence in this slot, and the late hybrids available (Nadorcott, Orri) from most of the origins are superior in terms of quality to the ultra-early clementines from the Northern Hemisphere. This shift is only getting started: more than 5 000 ha of easy peelers, almost solely late-season, were planted in South African alone between 2015 and 2017 (i.e. approximately 200 000 to 250 000 t additional production). Argentina, Uruguay and more so Peru have also planted a lot of this type of cultivars. So the first part of the campaign is set to more competitive and heavily laden, especially since the young stock of early Spanish clementines will continue their rise to prominence (more than 800 000 Oronules or Orogro trees planted between 2013-14 and 2016-17, not to mention Clemensoon, which should eventually attain a potential of 15000 to 20 000 t). In conclusion, it is clear that the greatest care must be taken in the early clementine planting programmes in the Northern Hemisphere.



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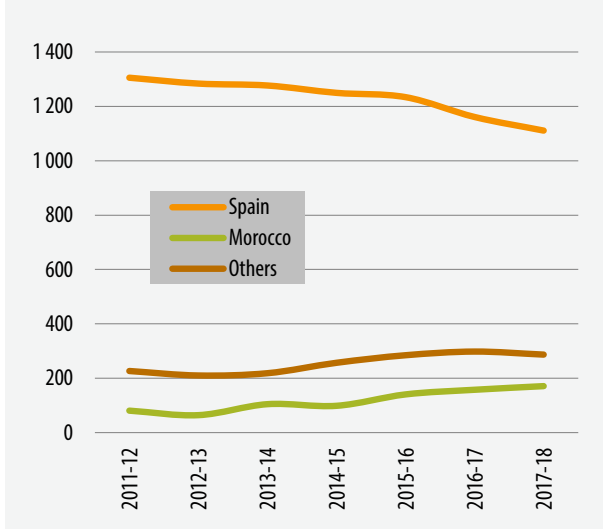
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**Orri Running
Committee**

Easy peelers - EU-28 - Supplier countries during the winter season
(in 000 tonnes / source: Eurostat)



Morocco needing to find its feet again on the Community market

The return of Morocco to the EC market is another move to follow. More than a strategy for the kingdom, it is a must! With the “Maroc Vert” plan, production has already doubled and the EU-28 is a nearby outlet and safe option in terms of payment. Winning it back will be difficult against the Spanish competition, yet Morocco, on the strength of a renewed varietal range, has already scored some points, not only on its favoured late-season slot, but also on the clementine market (see graph). Shipments to EC market have risen by approximately 100 000 t since 2012-13. To maintain this trend, Moroccan exporters are planning to invest in logistics platforms based in Europe (one in the north, and one in the south), so as to be able to provide a service similar to that of the Spanish competition. There remains the handicap of breadth of range, Moroccan orange production falling well short of making the same progress as easy peelers, in both quantity and quality ■



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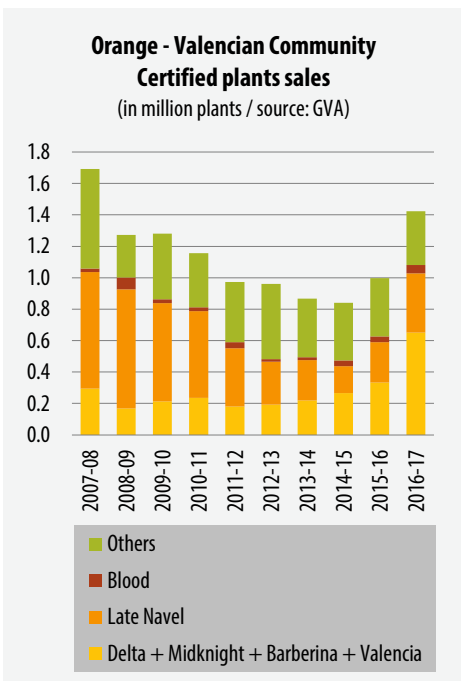
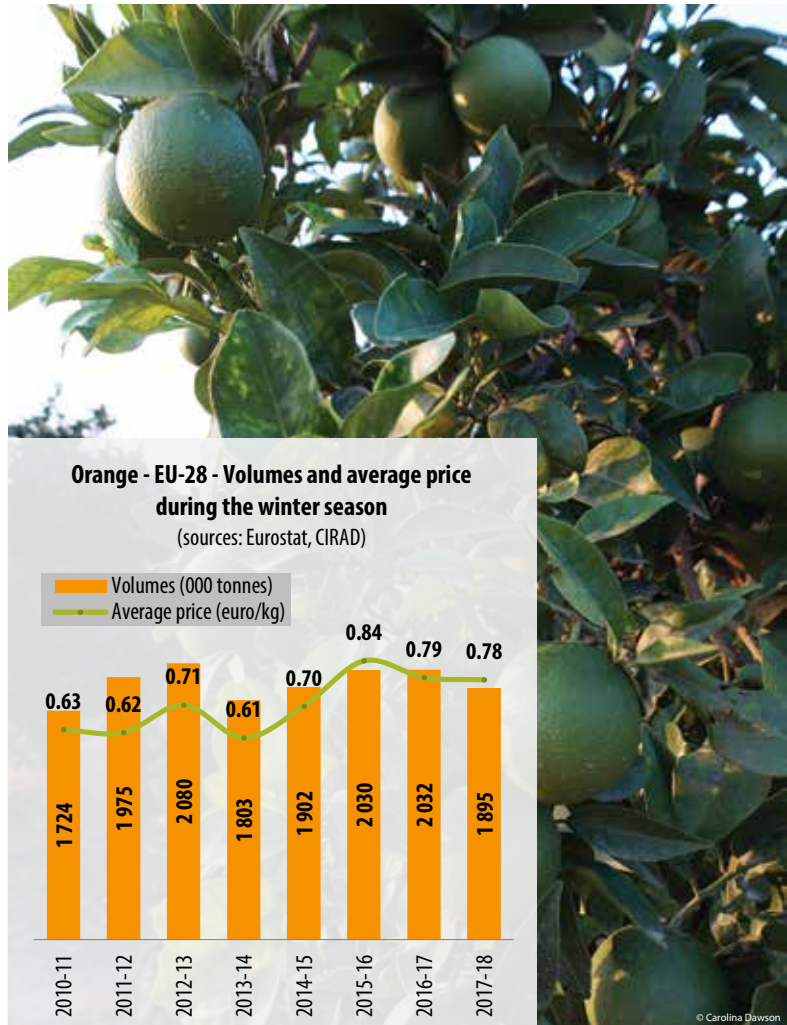


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Orange

Large-scale foundation work that has helped stabilise the market

Holding up is sometimes as good as a win. The EC orange market can be proud of this “small” success. With consumption modes moving toward products requiring as little preparation as possible, the handicaps in terms of practicality of use compared to east peelers, on the fresh market segment, and to juice, on the beverages segment, are weighing increasingly heavily. Yet orange volumes placed on the EC market have held up at approximately 2.6 million tonnes in recent years (across the winter and summer seasons). Varietal innovation has been one of the keys to this success. Spain, which controls nearly two-thirds of the EC market, has completely renewed its range, introducing very high-quality late table orange cultivars. This stock, widely planted at the end of the last decade, has now practically reached maturity.



Varietal range still developing, yet still aimed at the local markets of the producer countries

The future innovations in terms of variety are especially interesting for the local Spanish market, which consumes a large part of the Valencia juice oranges produced by the country. Stock of this variety, which has a high average age, are being replaced by higher-quality cultivars such as Delta and Midnight (more than 1.2 million trees sold in the Valencian Community alone between 2013-14 and 2016-17). Similarly, the planting trend underway in Italy seems mainly aimed at the local market. The replacement of resistant varieties by enormous surface areas of Sicilian orchards contaminated by tristeza is also an opportunity to introduce new blood orange cultivars, highly attractive due to their quality and extended marketing calendar (Tarocco ippolito, Tarocco melia, etc.). However, for lack of sufficient State support, the surface areas replaced and the production growth prospects are too limited for this fruit, despite its real potential, to be able to carve itself a real international outlet. In addition, the local market is drying up, with Italy in recent years going from being an exporter to importer for this citrus.

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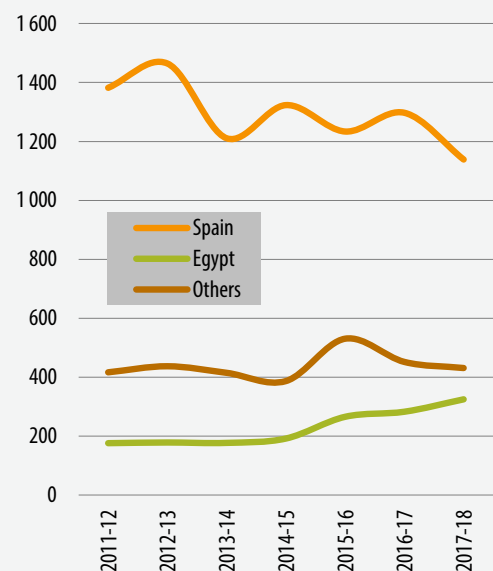
 **pulp**
fruits

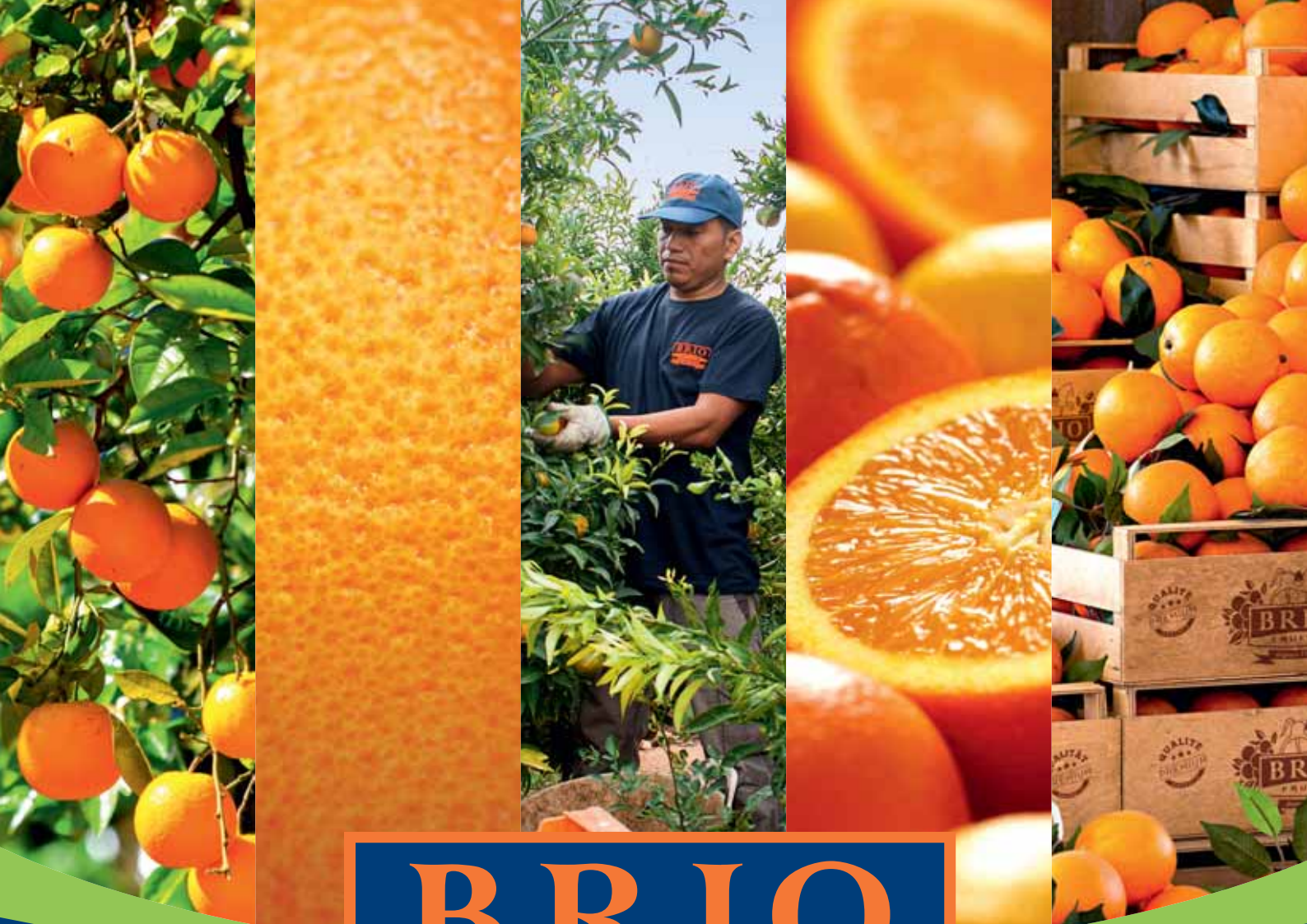


Ongoing growth of the juice machines market segment

The main movement to expect over the coming years is the ongoing development of the market segment due to supplying the juice machines fleet. This trend should continue to benefit Egypt, the only origin able to offer the very low prices required by the chains, which seek a cost per pressed litre which remains competitive against the benchmarks offered by the ultra-fresh segment. EC imports of Egyptian oranges rose by 150 000 t in four years, to reach 325 000 t in 2017-18. Egypt is becoming the world number one exporter country, ahead of Spain. The success of the export sector is based mainly on its extreme price competitiveness, due in particular to the low labour cost and the big devaluation of the Egyptian pound in late 2016. According to the USDA, the producer's sale price to the packing station set by the Egyptian Agricultural Export Council was 300 piastres, i.e. 0.16 USD/kg, in 2016-17! Exports should continue to grow in the coming years, with planting progressing rapidly, especially in the pioneering zones within the framework of the big State programme aimed at reclaiming 210 000 ha from the desert for agricultural purposes ■

Orange - EU-28 - Supplier countries during the winter season
(in 000 tonnes / source: Eurostat)





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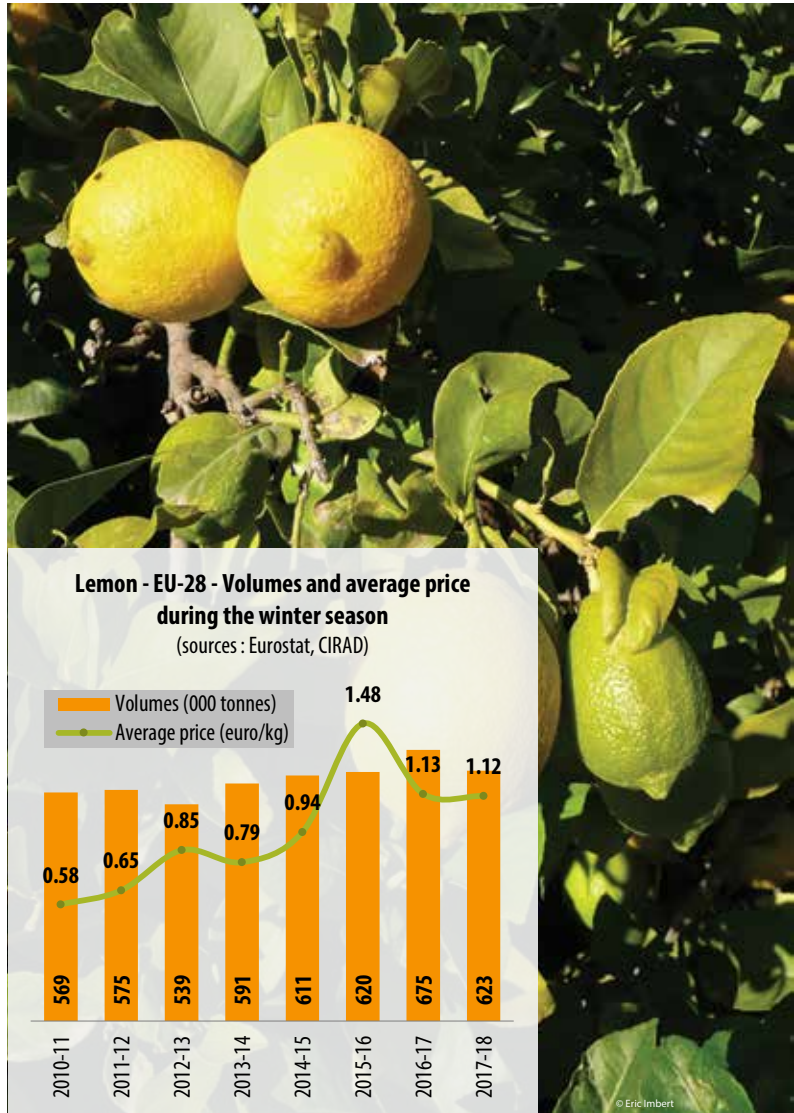
Lemon

All going well...for the moment

Against all expectation, the lemon has become a fashionable product! Who would have believed, just a few years ago, that this fruit, considered to be ageing and eventually doomed by competition from ready-to-consume juices, would become the most dynamic citrus? And yet, world trade has risen by on average 100 000 tonnes per year in recent years, 50 000 tonnes of which per year for the European Community alone. This fever – a paradoxical term for a product so rich in vitamin C – seems primarily due to the detox and health uses of this product, popularised in particular by the singer Beyoncé in 2013, and widely covered by media worldwide since then. According to a survey that we conducted on 450 people, 18 % consumed lemon every day as part of their “wellbeing” regime. Furthermore, consuming a mere half-lemon per day represents a mere 25 kg or so of fresh fruit per year. Will this trend continue? This is a difficult question to answer, yet the extent of communication on the product, now placed by certain among the ranks of the “super fruits” might lead us to think so.

A production boom in the Northern Hemisphere

What is for sure on the other hand is that production will increase considerably in the coming years. The boom in demand has caused a wave of large-scale planting. In the Northern Hemisphere, Spain has reportedly planted approximately 4 million lemon trees over the past four years. Production, which had previously flattened out at approximately 1 million tonnes, will break new ground in 2018-19 with an expected 1.3 million tonnes (the late Verna seeing quicker progress than Primofiore). It should reach 1.5 million tonnes eventually. Similarly, according to professional sources, nearly one million lemon trees have been planted in the past three years in Italy. These surface areas represent an additional production which can be estimated at approximately 150 000 tonnes. Finally, Turkish professionals have also confirmed a considerable upwards trend in surface areas. There are no statistics available to evaluate its magnitude. However, the evolution of export volumes is a good indicator, increasing by approximately 3 % per year over the last five years (i.e. + 100 000 tonnes approximately over the period).



Boom in the Southern Hemisphere too

The Southern Hemisphere is not to be outdone. Approximately 6 000 ha were planted between 2013 and 2017 in South Africa, i.e. an additional production potential of around 350 000 t (with an average yield of approximately 60 t/ha). Argentina has seen a similar trend, with an additional 4 500 ha between 2013 and 2017. These surface areas represent an additional production of approximately 200 000 t (with an average yield of around 40 to 45 t/ha). Overall, if we consider the main above-mentioned players from both hemispheres, there should be an additional production of at least 1.3 million tonnes within five years, where the continuation of the current dynamic in demand equates to world market growth of approximately 100 000 t/year (i.e. 500 000 t after 5 years). True, the industrial segment should absorb increasing volumes. Nonetheless, it is clear that the industry is heading for a situation of imbalance which will inevitably result in pressure on the fresh and derivatives markets ■

Prospects for 2022-23: 1.3 million tonnes more

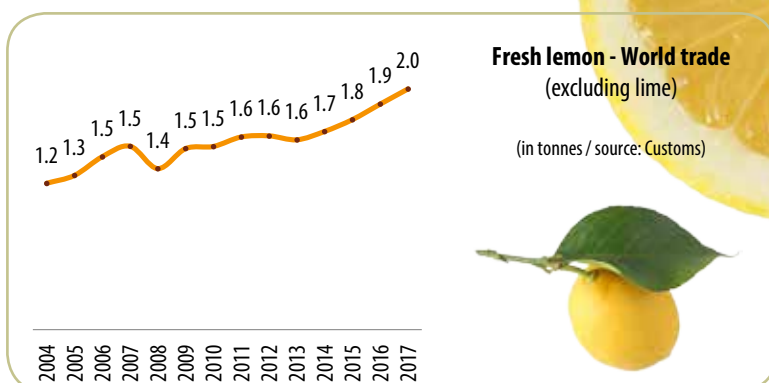
Lemon – Production and prospect

in 000 tonnes	2014-15 to 2017-18 average	2023-24 projection	Additional production at 5 years	Observations
Spain	1 000	1 500	500	<ul style="list-style-type: none"> + 4 million trees from 2011 to 2018 Replanting = 20 % / New planting = 80 % / Yield = 40 t/ha
Italy	430	570	140	<ul style="list-style-type: none"> + 1 million tries from 2015 to 2018 Replanting = 20 % / New planting = 80 % / Yield = 40 t/ha
Turkey	700	800	100	<ul style="list-style-type: none"> Hypothesis: production growing at the rate of exports (+ 3 % per year)
California	810	790	- 20	<ul style="list-style-type: none"> - 100 ha per year / Yield = 37 t/ha
Total N. Hemis.	2 940	3 660	720	
South Africa	350	710	360	<ul style="list-style-type: none"> 6 000 ha from 2014 to 2017 / Yield = 60 t/ha
Argentina	1 600	1 800	200	<ul style="list-style-type: none"> 4 500 ha from 2014 to 2017 / Yield = 45 t/ha
Total H. Hemis.	1 950	2 510	560	
Total	4 890	6 170	1 280	

Sources: CGA, Ailimpo, Federicitrus, USDA, professionals

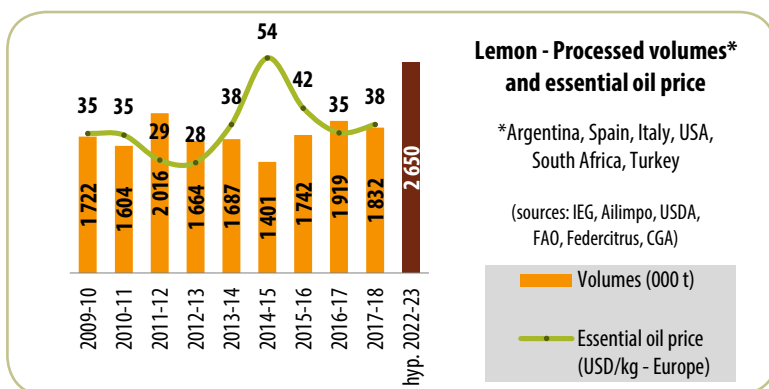
World fresh lemon market : + 500 000 tonnes

Hypothesis: continuation of the trend
(+ 100 000 t per year)



Remaining volumes: + 800 000 tonnes

Consequences on the by-products market?
about 40 % more volumes



Lemon – Processed volumes

in 000 tonnes	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Sources
United States	381	290	178	269	174	265	189	163	189	USDA
Spain	142	304	277	142	237	304	108	283	211	Ailimpo
Turkey	15	23	21	42	20	50	57	48	45	FAO
Italy	80	110	100	66	85	77	150	150	150	USDA and professionals
Total N. Hemisphere	618	727	576	519	516	696	504	644	595	
Argentina	1 050	813	1 361	1 086	1 099	603	1 140	1 209	1 110	Federicitrus
South Africa	54	64	79	59	72	102	98	66	127	CGA
Total S. Hemisphere	1 104	877	1 440	1 145	1 171	705	1 238	1 275	1 237	
Total	1 722	1 604	2 016	1 664	1 687	1 401	1 742	1 919	1 832	

Grapefruit

An increasingly tight market

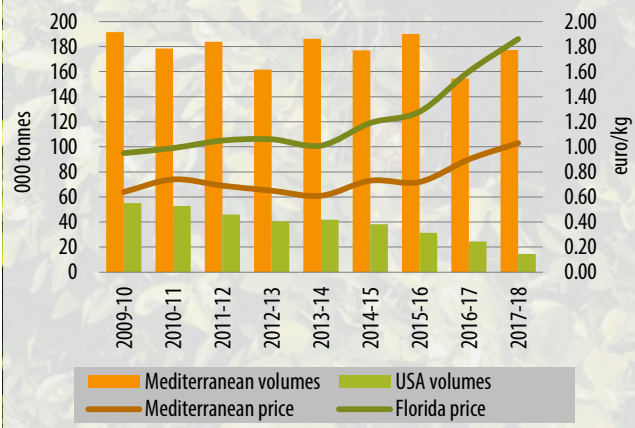
The trend for the grapefruit is – unfortunately – all too clear. The shrinkage of the European market is as steady as it is marked, losing one fifth of its volumes since the beginning of the decade, i.e. approximately 50 000 t. The fall in Floridian imports on its own explains this movement in full. This downturn has not benefitted the Mediterranean suppliers in any way, with the combined contributions from Israel, Spain and Turkey remaining stable during the same period. The only positive point on this market where doom and gloom reigns supreme: the rise in rates, estimated based on customs values at approximately 30 % for the Mediterranean origins since the beginning of the decade (as opposed to nearly 60 % for Florida).

Florida retaining a waning trend

There should barely be any change of trend in the upstream segment. In Florida, the small increase expected in 2018-19 should not raise expectations. It is due solely to the return of a normal climate context after the big production losses in 2017-18 due to the transit of Hurricane Irma. The cultivation area is continuing to shrink, losing on average just over 200 000 trees per year (i.e. 5 % of total stock). Meanwhile, yields are also waning. So the fall in shipments to the EU-28 should continue, with the market shares for fresh and the EU-28 maintaining a highly stable level in normal production years. This change of scale will lead to the Floridian supply refocusing on customers of top-end supermarket chains and of fruit trade specialists (specialist supermarkets or smaller-scale shops). The Texan supply (200 000 to 230 000 t of produce), which is on a growth trend in Europe, will help strengthen a high-quality "USA grapefruit" supply.



Grapefruit - EU-28 - Volumes and average import price in France during the winter season
(sources: Eurostat, CIRAD)



Mediterranean practically stable

Few changes in trend should be expected in the Mediterranean. The grapefruit cultivation area is reportedly stable in Turkey, while it is expanding for all the other citrus families. The crop remains unprofitable and the local market is practically non-existent. Similarly, surface areas have also stabilised in Spain. Finally, after a long sequence of years of uprooting, planting of coloured grapefruits has reportedly picked up on a small scale in Israel (approximately 100 ha/year). However, these developments are motivated by growth in exports to the highly lucrative Asian markets (China, Japan and South Korea). There is a clear parallel disengagement from the EC market (exports to the EU-28 having slumped by one quarter in recent years, i.e. approximately 10 000 t.

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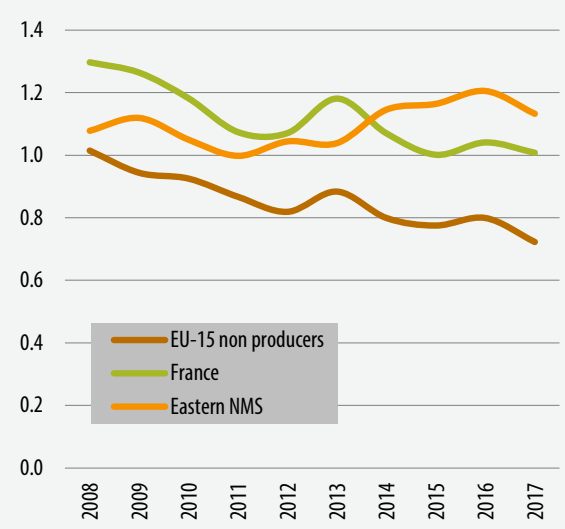
"Susie"



Product becoming marginalised, barring a surge by Mediterranean producers

So while the supply should mainly continue to wane over the coming years, the evolution in demand is raising questions. The fall in shipments from the highest quality origins (especially Florida) is also synonymous with a fall in the overall taste level of the supply. Analysis of consumption per capita shows an increasingly distinct shift of the market's centre of gravity toward the Eastern part of the EC, where the price of the product remains the main selection criterion. Should this movement be regarded as inevitable? Analysis of the French market is particularly interesting. Consumption is holding up better than elsewhere in the EU-28, probably thanks to a range of supplier countries raising the taste level of the supply: Florida still has a strong presence, as well as Mexico during the inter-season period, a degree of selectivity in the Mediterranean supply, with in particular a very small Turkish presence. This example shows that a lucrative market exists for high-quality grapefruit. Corsica has already started to break onto the market by offering a premium Mediterranean grapefruit. This is an avenue for other producers in the zone to consider, selecting the best land and offering a sufficiently late market calendar to ensure a superior taste quality ■

Grapefruit - EU - Consumption dynamics
(in kg per capita / source: CIRAD)



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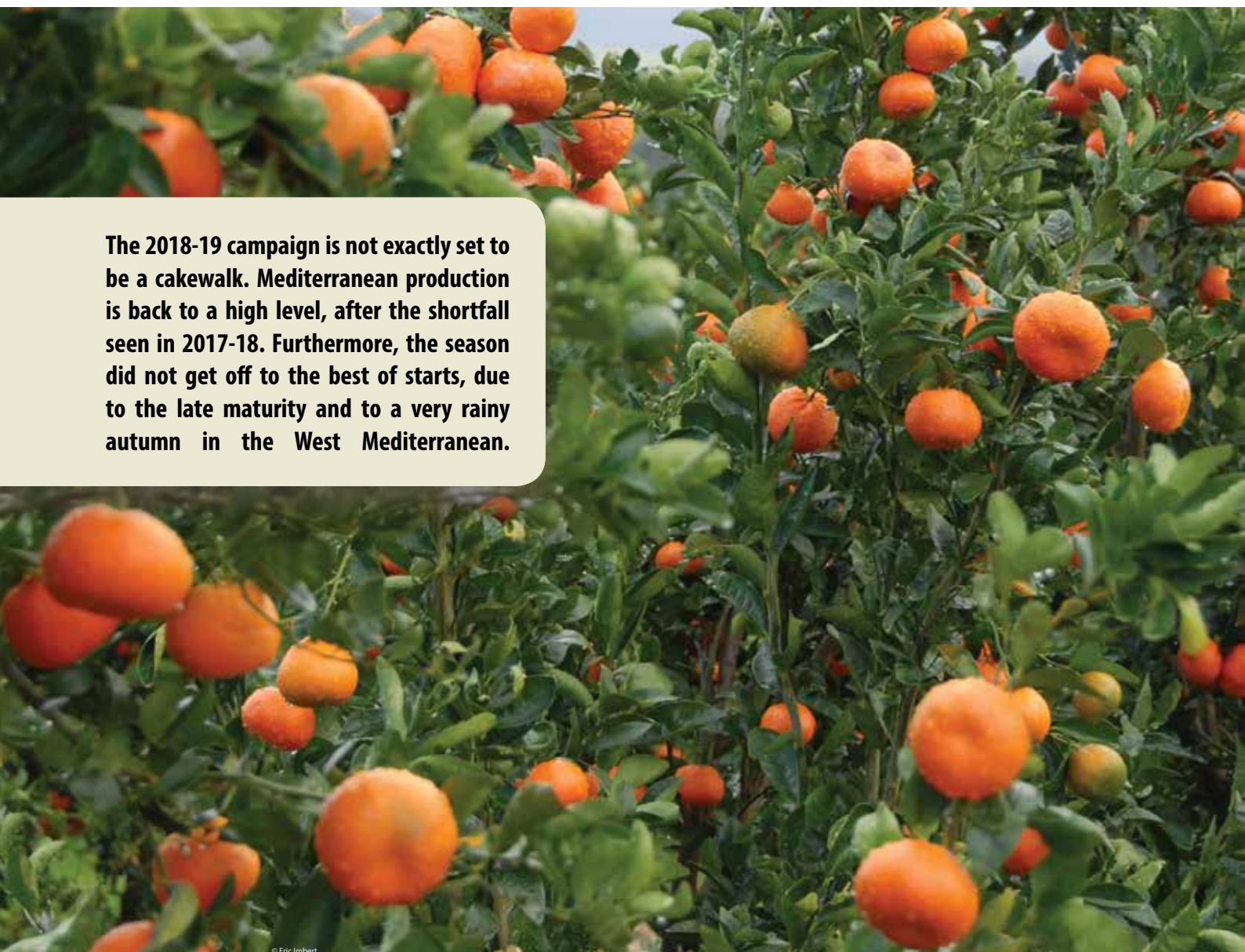
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Citruses

Forecasts for 2018-19

Back to decent volumes

by **Eric Imbert**, CIRAD
eric.imbert@cirad.fr



The 2018-19 campaign is not exactly set to be a cakewalk. Mediterranean production is back to a high level, after the shortfall seen in 2017-18. Furthermore, the season did not get off to the best of starts, due to the late maturity and to a very rainy autumn in the West Mediterranean.

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Lemon

Record harvest for the two leaders

The 2018-19 season marks a change of gear for Mediterranean production. After several years' uninterrupted growth in the cultivation area, the combined harvest of the main regional players will reach a historic level, exceeding 2.5 million tonnes for the first time. This is approximately 16 % above average for recent campaigns, i.e. nearly 300 000 t.

It is Spain that is chiefly responsible for this increase, with a record harvest of approximately 1.3 million tonnes (28 % above the four-year average). This is a major rise, both for the late Verna variety (+ 46 %) and Primofiori (+ 22 %). There should be a very big harvest during the period from November to January, when the stock graded onto the high-producing *Macrophylla* are at peak production. The industrial sector should take in more substantial volumes than in previous campaigns. Prices are maintaining stable and attractive levels, both for concentrate (approximately 3 200 USD/t for 400 gpl concentrate FOB Argentina), and for essential oils (between 30 000 and 33 000 USD/t into Europe, depending on the origin). Nonetheless, despite this buffering effect, large volumes will remain available for the fresh market.

Turkey too should enjoy a record harvest, estimated at 800 000 t according to the information collected from the press and professionals (15 to 20 % above average). Devaluation of the Turkish lira should encourage producers to up their focus on exports more than in previous seasons. The local market will probably have lower demand, with the increase in cost prices due to the higher cost of dollarized inputs weighing down on retail sales. Conversely, Turkish exporters may be even more aggressive than usual on the international market, thanks to the exchange rate gain. Furthermore, the shipments statistics as at the end of October registered a rise of more than 80 % by volume at prices approximately 25 to 30 % lower than in 2017-18.

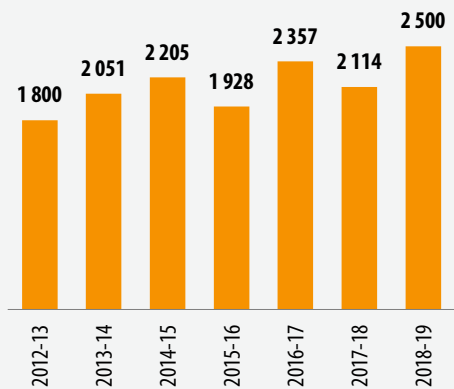
Italy is to be the only origin that will see its production go down (- 8 % according to official sources).

Demand has exhibited an excellent dynamic in recent seasons. So with average growth in consumption per capita of approximately 100 g/year, the EC market should be able to take in an additional 50 000 t. Meanwhile, the industrial sector will probably be a good customer, with derivatives prices remaining high. Nonetheless, despite a good start to the season, the average campaign price should drop considerably from its excellent level in previous seasons ■

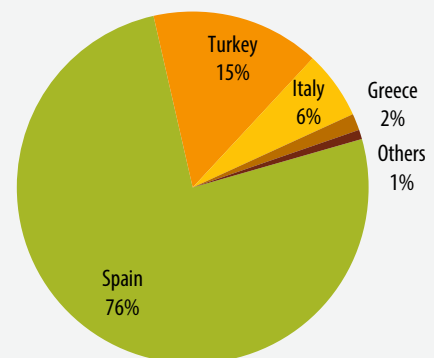
EU MARKET
Approx. 650 000 tonnes
during the winter season

On the up:
 + 30 000 tonnes in 4 years
 (+ 60 000 t with Southern Hemisphere volumes)

Lemon - EU-28 - Production from main supplier countries
 (in 000 tonnes / various sources)



Lemon - EU-28 - Supply 2016-17 / 2017-18 average
 (in 000 tonnes / source: Eurostat)



Lemon – EU-28 – Evolution of supply

in 000 tonnes	2017-18	Evolution over 4 years
Spain	461 236	+ 9 185
Turkey	104 490	+ 9 185
Italy	38 730	+ 3 775
Greece	12 635	+ 4 384
Others	5 629	+ 2 329

Source: Eurostat

Mediterranean lemon – 2018-19 production forecasts

in 000 tonnes	2018-19	Comparison	
		2017-18	Last 4 years average
Spain	1 300	+ 19 %	+ 13 %
Italy	400	- 8 %	- 6 %
Turkey	800	+ 29 %	+ 28 %
Total	2 500	+ 18 %	+ 16 %

Sources: Ailimpo, Maroc Citrus, ISTAT, USDA

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Easy peelers

A heavily laden campaign and a hesitant start only making matters worse!

2018-19 is set to bring a heavily laden campaign. Spain, which controls approximately 70 % of the EC supply, should see its harvest regain a level slightly above the four-year average, after the considerable shortfall in 2017-18, with a particularly marked rise at the beginning and end of the season. The export potential is on the increase for early clementines (14 % above average in the Valencian Community), since the young Clemenruby and especially Oronules orchards are coming into their prime. Similarly, there will be a generous late hybrids harvest, again due to the development of large surface areas of Orri, Nadorcott and Tango planted in recent years (big increase in the combined production of these three varieties, more than 60 % above average, though to keep things in perspective this represents a volumes rise of approximately 60 000 t). Conversely, the harvest of the Nules mid-season clementine, which on its own represents more than one-third of Spanish easy peeler production, will do no better than regain an average level (approximately 770 000 t in the Valencian Community). The sizing appears limited at the beginning of the season, though the October rains should help the mid-season and late varieties compensate for this.

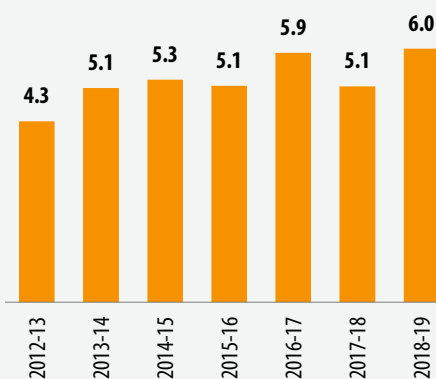
Unsurprisingly given its expanding cultivation area under the "Maroc Vert" plan, Morocco is set for a record 2018-19 harvest. Production should be approximately 25 % above average, with expected volumes estimated at nearly 1.4 million tonnes. There is a considerable increase for mid-season or late clementines (Nour). Conversely, the late hybrids harvest should do no better than approach the 2017-18 level (alternate bearing effect counterbalancing the Nadorcott stock coming into its prime). Just as in Spain, the sizing is to be limited at the beginning of the season. Development of sales to the EU-28 and North America remains a strategic avenue, with the approximately 30 000 ha of easy peeler orchards planted since 2006 entering their prime. These markets have responded positively in recent campaigns (Moroccan shipments up by approximately 100 000 t since 2012-13 to the EU-28, and by 80 000 t to North America). This season more than ever they will be important targets, since competition from Turkey is set to be fierce in Russia, which remains Morocco's main market, taking in nearly one third of total volumes. According to professional sources, the Turkish easy peelers harvest will maintain a rapid growth rate in 2018-19, while devaluation of the national currency is a major asset in terms of competitiveness on the international market.

EU MARKET

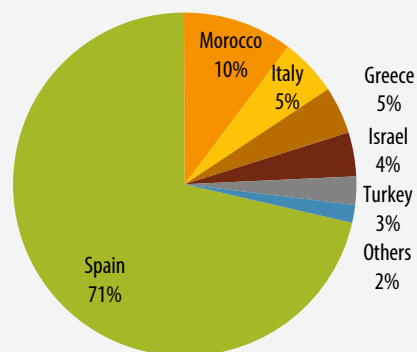
Approx. 1.6 million t during the winter season

Very slight growth:
+ 100 000 t in 10 years

Easy peelers - EU-28 - Production from main supplier countries
(in million tonnes / various sources)



Easy peelers - EU-28 - Supply 2016-17 / 2017-18 average
(in 000 tonnes / source: Eurostat)



© Régis Domergue

After the big dip in 2017-18, Israel will regain a high easy peelers production level, albeit not a record (223 000 t, i.e. 13 % above average). Orri will continue to represent the bulk of exports. Europe will remain the main market for Israeli exporters. Nonetheless, the diversification trend toward the US market, and above all to the Asian markets, should continue.

After a modest 2017-18 campaign, the small Corsican production should return to a higher level in 2018-19. Volumes shipped should be around 30 000 t (+ 10 to + 15 % on 2017-18). Just as in Spain, the season got off to a very gradual start due to disruption by significant spells of rain. The sizing is currently focused on 3, but it should rise as the season progresses.

The campaign got off to a difficult start, contrary to what a fairly high price level would lead us to think. The delayed maturity and then the at times biblical rains which hit the whole of the western Mediterranean limited the volumes available in October. The season for certain varieties such as Clemenruby had to be cut short, with the fruit's keeping life dissatisfactory. The supply returned to a high level in early November, with the Nules variety gradually embarking on its campaign. The mid-season is set to be heavily laden, with a return to an average production level spelling large volumes for this variety. The supply pressure should remain high during the latter part of the season, with a late hybrids harvest approximately 100 000 t up on last year (+ 20 %) ■

Easy peelers – EU-28 – Evolution of supply

in 000 tonnes	2017-18	Evolution over 4 years
Spain	1 111	- 166
Morocco	171	+ 66
Italy	75	+ 9
Greece	72	+ 23
Israel	56	+ 15
Turkey	51	+ 5
Others	32	+ 17

Source: Eurostat

**Mediterranean easy peelers
2018-19 production forecasts**

in 000 tonnes	2018-19	Comparison	
		2017-18	Last 4 years average
Spain	2 229	+ 15 %	+ 2 %
Turkey	1 400	+ 7 %	+ 20 %
Morocco	1 374	+ 35 %	+ 26 %
Italy	800	+ 37 %	+ 13 %
Israel	223	+ 37 %	+ 13 %
Total	6 026	+ 18 %	+ 12 %

Sources: GVA, Junta Andalucía, Maroc Citrus, CMBI, ISTAT, USDA



© Eric Imbert

Grapefruit

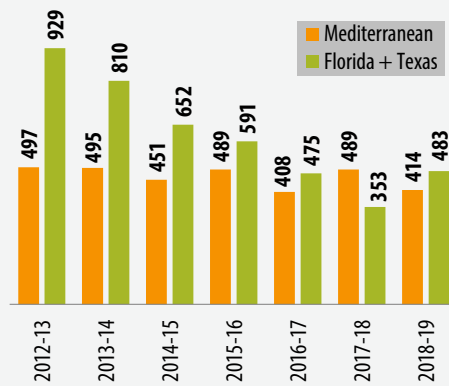
**A bit more tropical,
but less Mediterranean**

Production potentials present a very mixed picture. The supply of tropical grapefruit should be slightly up. After a 2017-18 season marked by a cyclical trough due to the losses caused by Hurricane Irma, Floridian production should see a significant climb of approximately 80 000 t (+ 44 %). Nonetheless, it will remain more than 25 % below the four-year average, with the cultivation area's underlying shrinking trend remaining in place (trees lost at a rate of 200 000 to 300 000 per year in recent campaigns). Exports should increase, in considerably more modest proportions than production. Sizing, at its lowest level since the beginning of the decade according to the survey published by the FDOC in October, appears at present to be highly restrictive on exports. The Texan grapefruit will make a good reinforcement this season. This origin, also very high quality, will enjoy volumes registering a considerable rise (expected harvest 6.2 million 36.2-kg boxes, as opposed to 4.8 on average for recent seasons). The season seems to be somewhat running late for both suppliers.

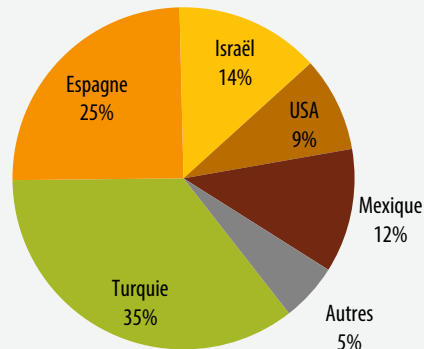
Conversely, the Mediterranean has a downward production trend. This movement is mainly due to a big alternate bearing effect in Turkey. After a very heavily laden 2017-18 campaign, as the record exports level attests, the harvest seems much more limited this season according to the information collected from the professionals. Little change is expected in Spain, whose harvest appears set to be similar for 2018-19 (76 000 t) and near-average. This stability illustrates an apparently static cultivation area over recent seasons. No change either in Israel, with production expected to be approximately 150 000 t. It is still too soon to see the first effects of this country's small-scale replanting trend, which is also of modest intensity (approximately 100 ha planted per year for a coloured grapefruit cultivation area which has shrunk to 1 350 ha). The more lucrative Asian markets have gained a lot of ground to the detriment of the EU-28 in recent campaigns (Israeli exports to the Community down by approximately 10 000 t in recent years, i.e. - 25 %). They will remain highly attractive in 2018-19, with probably no more than a slight rise in Floridian exports to these destinations ■

EU MARKET
Approx. 200 000 t
during the winter season
 In decline:
 - 40 000 t in 4 years

Grapefruit - EU-28 - Production from main supplier countries
 (in 000 tonnes / various sources)



Grapefruit - EU-28 - Supply 2016-17 / 2017-18 average
 (in 000 tonnes / source: Eurostat)



Grapefruit – EU-28 – Evolution of supply

in 000 tonnes	2017-18	Evolution over 4 years
Turkey	92 492	+ 4 790
Spain	49 420	+ 957
Israel	28 829	- 12 835
United States	14 391	- 53 935
Mexico	13 411	- 13 155
Others	6 551	- 8 066

Source: Eurostat

**Mediterranean grapefruit
2018-19 production forecasts**

in 000 tonnes	2018-19	Comparison	
		2017-18	Last 4 years average
Turkey	190	- 29 %	- 14 %
Israel	148	+ 2 %	- 7 %
Spain	76	0 %	- 3 %
Total	414	- 15 %	+ 10 %

Sources: Ailimpo, Maroc Citrus, ISTAT, USDA

Tropical grapefruit – 2018-19 production forecasts

in 000 tonnes	2018-19	Comparison	
		2017-18	Last 4 years average
Florida	258	+ 44 %	- 26 %
Texas	225	+ 29 %	+ 33 %
Total	483	+ 37 %	- 7 %

Source: USDA



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 Contact : Guy Lesvenan - g.lesvenan@milesimport.com

Orange

Big harvests in Spain and Egypt

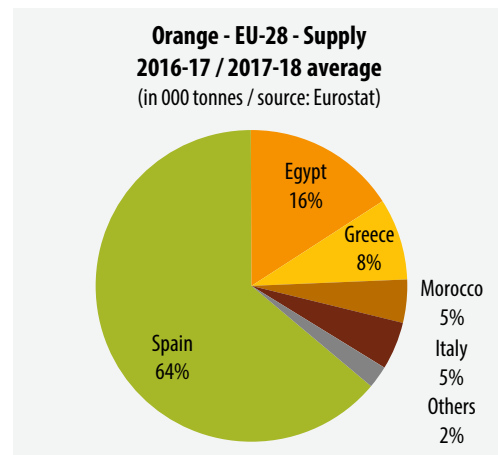
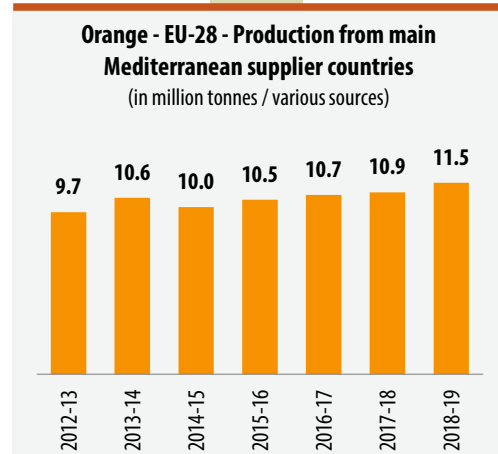
The campaign is set to be very heavily laden. Spain, which on its own controls more than 60 % of the EC market, is enjoying a harvest which, without setting a record, nonetheless has registered a level more than 10 % above the four-year average. Table orange availability is high. In the Valencian Community, the Naveline harvest is approximately 6 % above average (i.e. approximately 200 000 t). There is a rise of more than 20 % for Lane late table oranges (i.e. approximately 150 000 t), the cultivation area of which has expanded greatly in recent years. Juice oranges are apparently the only varietal group to see their production do no more than return to an average level. The sizing is limited at the beginning of the season, yet it could rise following the early autumn rains. The derivatives market should remain promising and slightly relieve the supply pressure on the fresh market. The prospect of a fall in the Brazilian harvest, in a context of limited stocks, has raised concentrate rates to approximately 2 400 USD/t into Rotterdam (see orange juice article). So Spanish producers should send bigger volumes than last season to the industrial sector (1.1 million tonnes scheduled in 2018-19, i.e. 200 000 t more than last season).

Egypt is set for an even bigger production than in 2017-18 for Navel, though somewhat smaller for juice oranges (Valencia and Baladi). Within the space of a few years, this country has become the number two supplier to the EU-28 during the winter season, and is now shadowing Spain, with 17 % growth in market share in 2017-18. This season once more will bring sufficient volumes to feed the development of all its markets, including China, shipments to which have boomed in recent seasons (more than 100 000 t in 2017-18, whereas this market was practically non-existent a few years earlier).

The trend is mixed for the top-up suppliers to the EC market. The harvest should be considerably below average in Italy. A significant share of the flowering was lost, due to the spring 2018 rains in Sicily. The impact of the heavy spell of rains which battered this island in the autumn is still hard to estimate. It seems that some of the young orchards have been lost, but the consequences on the production of this season appear rather limited. Conversely, Morocco has large volumes. Production is registering a level approximately 25 % above average, with the young orchards planted under the "Maroc Vert" plan coming into their prime (approximately 16 000 ha of new planting between 2006 and 2017, including nearly 7 000 ha of late Navel).

The Spanish campaign started fairly late (delayed maturity especially in terms of coloration, rains in production), in a context still heavily laden with Southern Hemisphere oranges (big late shipments from South Africa). Supply pressure increased considerably from mid-October, with growth in Spanish shipments. The pressure should remain very significant during the mid-season and remain high during the first part of the campaign, when large volumes of late Navel and similar varieties will be placed on the market. However the industrial sector should play something of a buffering role ■

EU MARKET
Approx. 1.9 to 2.0 million t
during the winter season
 Stable since 2011-12



Orange – EU-28 – Evolution of supply

in 000 tonnes	2017-18	Evolution over 4 years
Spain	1 138 728	- 72 081
Egypt	325 055	+ 147 751
Greece	154 438	- 51 794
Italy	108 528	+ 25 234
Morocco	78 388	+ 23 444
Others	89 906	+ 19 395

Source: Eurostat

Mediterranean orange – 2018-19 production forecasts

in 000 tonnes	2018-19	Comparison	
		2017-18	Last 4 years average
Spain	3 639	+ 13 %	+ 8 %
Egypt	3 200	0 %	+ 9 %
Turkey	1 950	+ 2 %	+ 13 %
Italy	1 500	- 7 %	- 4 %
Morocco	1 180	+ 26 %	+ 25 %
Total	11 469	+ 5 %	+ 9 %

Sources: GVA, Junta Andalucía, Maroc Citrus, ISTAT, USDA



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Orange juice World market

Strong prices

The consumption figures for 2017 show that orange juice demand remains very poorly. However, concentrate rates should remain strong in 2018-19, since Brazilian orange production is set to be well below normal, in a context of relatively light concentrated juice stocks.



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World consumption still lacklustre

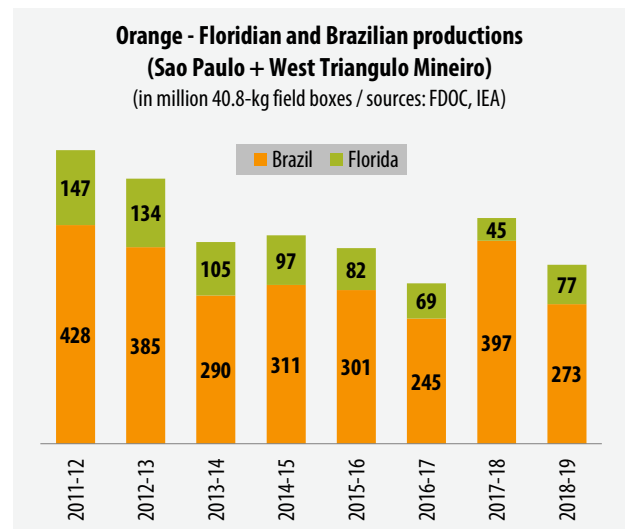
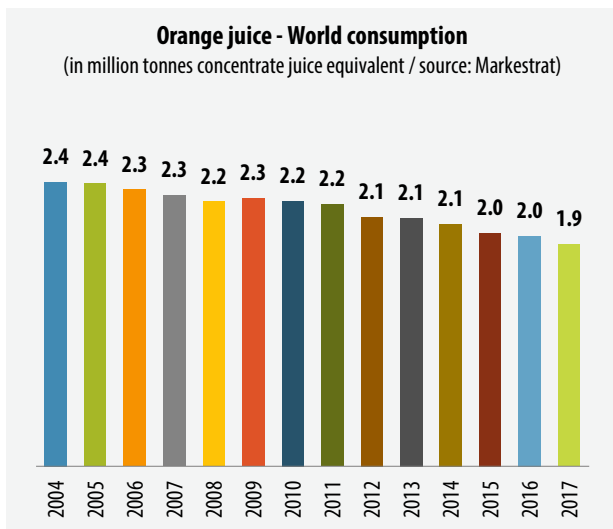
Unsurprisingly, the downward trend in orange juice consumption continued in 2017, according to the latest Markestrat figures. With the increase in concentrate rates being passed on to the retail sector (+ 2 % in the USA between 2016-17 and 2017-18, after + 3 % between 2015-16 and 2016-17), the downward dynamic actually seems to be gathering pace. There was apparently a drop of 4 % between 2016 and 2017, as opposed to an annual rate of 2.5 % on average over the past five years. The recurrent fall in consumption on the world's two big markets, namely the USA and the EU-28, is not always offset by the rise in sales on the emerging markets (Asia and above all Latin America). The US market reportedly shrank by approximately 9 % between 2016 and 2017, with the big European markets seeing more limited falls (- 1.4 % in France and - 4.4 % in Germany).

Small harvest and resurgent greening in Brazil

However, the combined production of the world's big specialists supplying the processing market seems to be somewhat in shortfall. This is clearly the case in Brazil, which is dominating the industrial orange sector just as much as ever, with a market share of more than 50 %. According to the latest available estimate, the harvest for the Sao Paulo region and the west of Minas Gerais province is more than 30 % below the four-year average, with approximately 273 million field crates (i.e. just over 11 million tonnes). There was a marked drought in Q1 2018, when a large part of the first flowering was lost. Furthermore, fruit droppage could be even greater than the previous season, since greening is continuing to gain ground, as is shown by the cultivation area infestation rate, up from 16.7 % in 2017 to 18.1 % in 2018.



© Régis Domergue



Orange - Floridian and Brazilian productions

in million 90-lb (40.8 kg) field boxes	2018-19	2017-18	4-year average	2018-19 compared to	
				2017-18	4-year average
Florida	77	45	73	+ 76 %	+ 8 %
Brazil	273	397	314	- 31 %	- 13 %
Total	350	442	387	- 20 %	- 9 %

Sources: FDOC, IEA

Finally some good news in Florida, albeit one swallow does not a summer make

For the first time since 2011-12, orange production has registered an increase with approximately 77 million field crates expected (3.1 million tonnes, i.e. 1.3 million tonnes more than in 2017-18). However, this bounce-back should be put into perspective. It is due to the abnormally low level of the 2017-18 harvest, due to production losses generated by the transit of Hurricane Irma. The underlying trend remains poor. The cultivation area, practically entirely contaminated by greening, is continuing to shrivel up like shagreen. The cultivation area has continued to lose on average 5 000 ha per year in recent years, while yields have been falling and fruit droppage has been proliferating. While Florida remains at present the world number two juice producer, its market share has gone from 22 % at the beginning of the decade to approximately 15 % in 2016-17.

Slightly bigger production among the other big processors

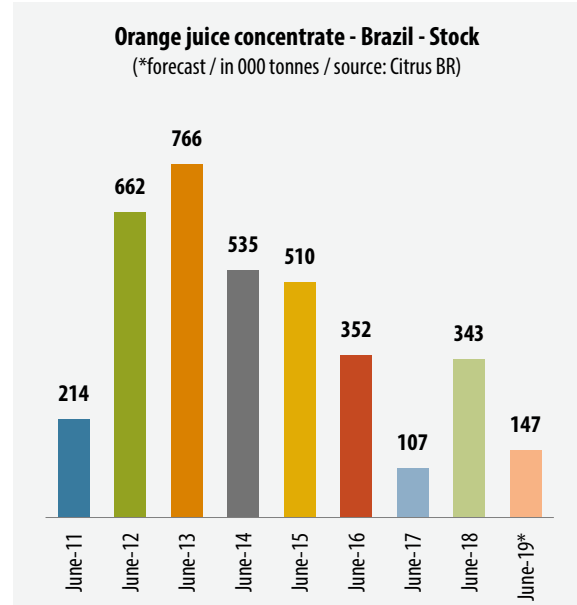
The other players in the sector are behind approximately one third of world orange juice production. Only some of them issue production forecasts. Mexico, the world number 3 power with a market share of approximately 9 %, is among those that do not. Nonetheless, we might assume that the volumes directed to the industrial sector will remain in the relatively narrow range where they have fluctuated in recent seasons (between 1.5 and 1.7 million tonnes). The cultivation area is not seeing significant growth in this country. Conversely, volumes directed to the industrial sector should be bigger in Spain, which comes next in the ranking with a market share of approximately 5 %. In 2018-19 the country is set for a big fruit harvest, currently of rather limited size. The initial forecast is reckoning on approximately 1.1 million tonnes for processing, i.e. 200 000 t more than the previous season. The orange sector is seeing major upheaval in China, the world no.5 processor, with a market share of approximately 3 %. The centre of gravity of the cultivation area is tending to shift westward, with the expansion of plantations in provinces such as Sichuan, Guangxi and Chongqing, less affected by greening than Jiangxi, though this remains the leading province. Nonetheless, volumes directed to the industrial sector have shown great stability in recent years, with NFC gaining ground over concentrate. The local fresh orange market is booming thanks to the development of preservation or transport infrastructures in the country. The trend should remain the same in 2018-19.



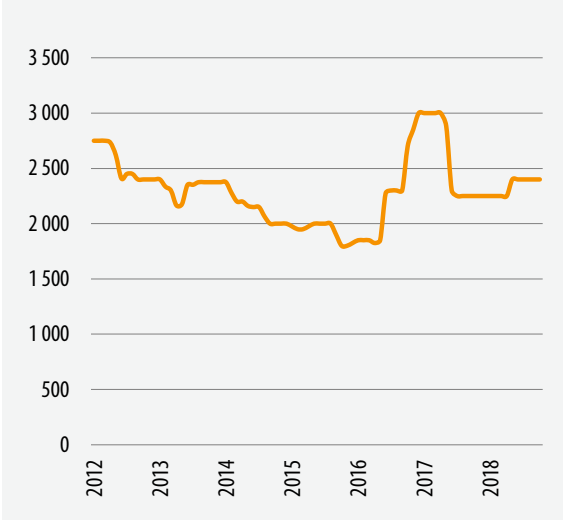
Low stocks and strong prices

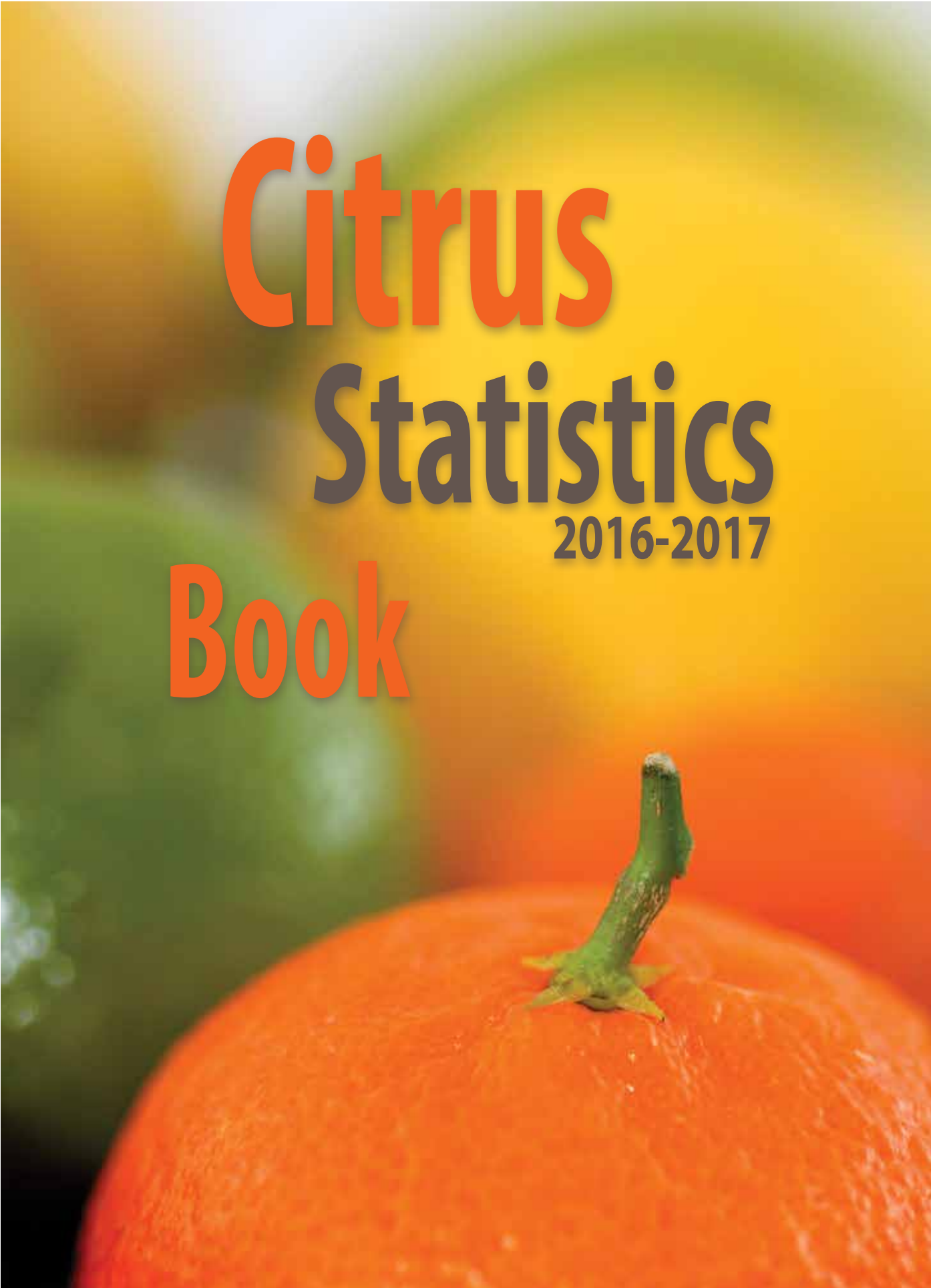
The good 2017-18 Brazilian harvest helped reinflate stocks somewhat, which had fallen to their lowest level for more than a decade in June 2017 (107 000 t equivalent of concentrate, i.e. approximately 5 weeks' consumption). However, their level remains low. The 343 000 t recorded in June 2018 was more than 200 000 t below the average level seen from 2012 to 2016. In this context the prediction in spring of a restrained Brazilian harvest enabled the rates climb to 2 400 USD/t into Rotterdam, after a 150 USD increase. They should remain very strong over the coming months. The prospect of very limited stocks in June 2019 (less than 150 000 t) points to rates holding up well over spring 2019, while the Brazilian harvest should rally due to the alternate bearing phenomenon ■

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Orange juice concentrate 65°B - Average price CIF Rotterdam
(in USD per tonne / source: Foodnews)

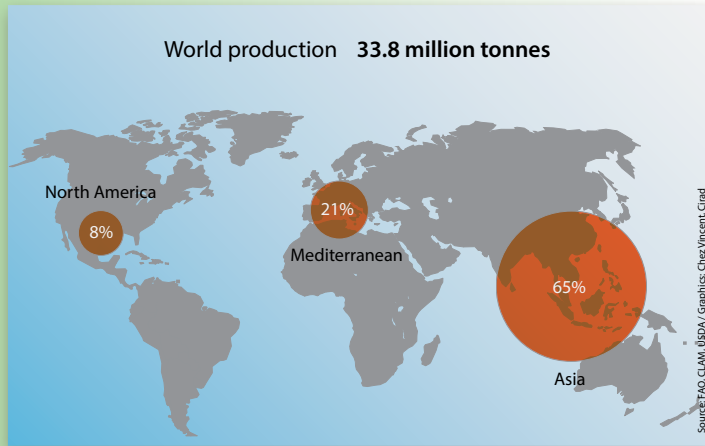




Citrus Statistics 2016-2017 Book

EASY PEELERS

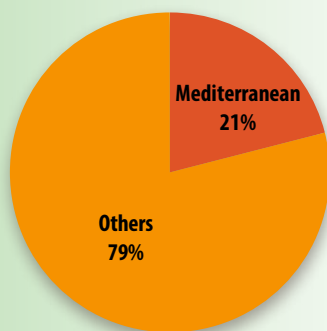
Production (2016-2017)*



Easy peelers - Top 10 producer countries	
000 tonnes	2016-2017
China	19 300
Spain	2 367
Morocco	1 278
Turkey	1 060
United States	1 033
Japan	994
Brazil	965*
South Korea	635
Italy	630
Egypt	625*

* Estimate / Sources: FAO, professionals

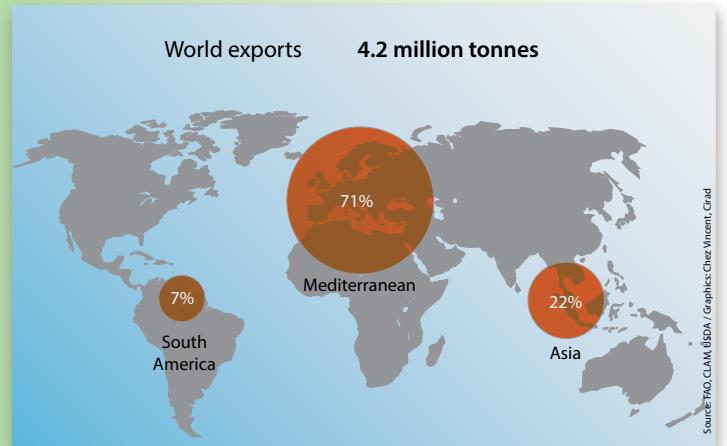
Easy peelers - World
Mediterranean production share



Easy peelers - Mediterranean - Production	
000 tonnes	2016-2017
Spain	2 367
Morocco	1 278
Turkey	1 060
Italy	630
Egypt	625*
Israel	241
Greece	175
Tunisia	106
Cyprus	75*

* Estimate / Source: professionals

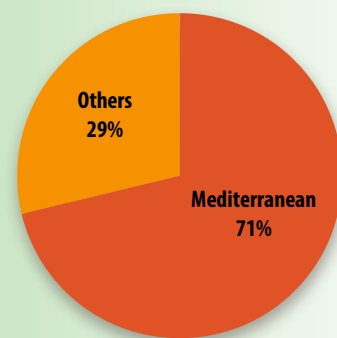
Exports (2016-2017)*



Easy peelers - Top 10 exporter countries	
000 tonnes	2016-2017
Spain	1 376
Turkey	711
China	587
Morocco	493
Pakistan	350
South Africa	202
Peru	143
Israel	120
Chile	117
Greece	92

Sources: national Customs, professionals

Easy peelers - World
Mediterranean exports share



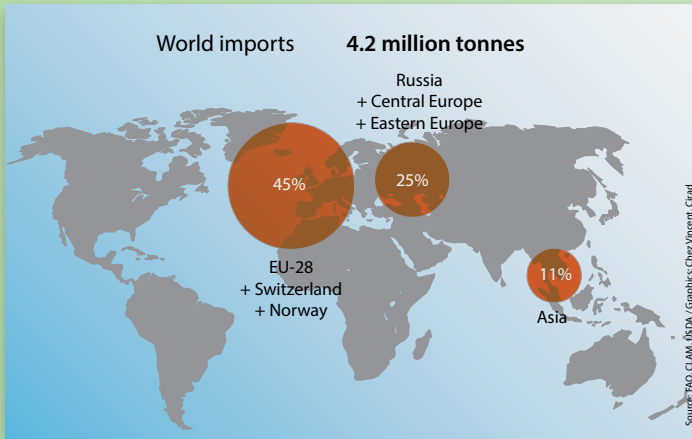
Easy peelers - Mediterranean - Exports	
000 tonnes	2016-2017
Spain	1 373
Turkey	711
Morocco	587
Israel	120
Greece	92
Egypt	48*
Italy	24
Cyprus	10

* Estimate / Source: professionals

* 2016 for S. Hemisphere, 2016-2017 for N. Hemisphere
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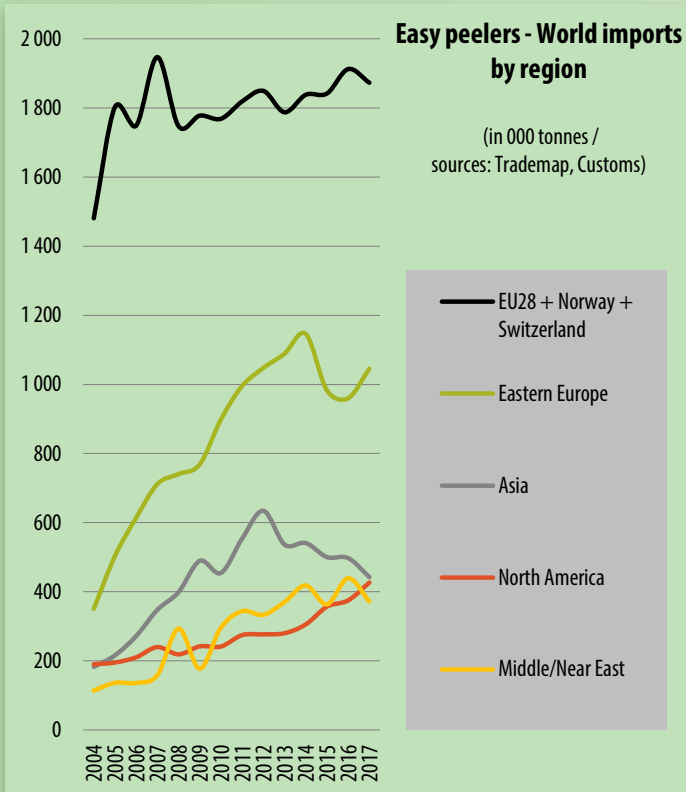
EASY PEELERS

Imports (2016-2017)*



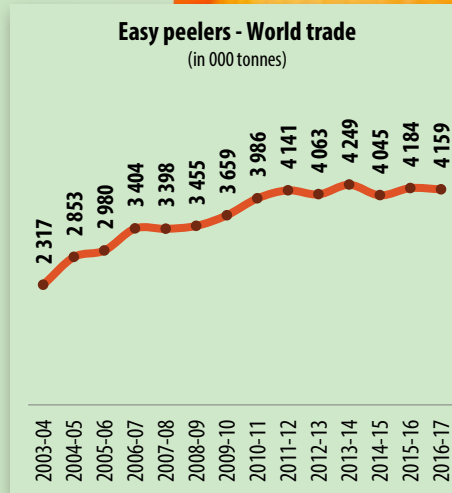
Easy peelers - Top 8 importer countries	
000 tonnes	2017
Russia	638
Germany	375
France	354
United Kingdom	282
USA	274
Netherlands	183
Iraq	177
Ukraine	133

Source: national Customs



* 2016-2017 or calendar year 2017

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Easy peelers - United States - Main supplier countries						
000 tonnes	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total	150.1	181.9	210.7	228.9	273.6	84.9
Total N. Hemis., incl.	65.3	85.8	83.2	70.1	74.4	84.9
Morocco	11.5	37.7	44.4	32.2	43.0	56.6
Spain	47.6	40.5	32.2	23.3	17.0	15.4
Israel	2.3	2.5	4.4	8.3	9.4	7.5
Mexico	3.9	5.1	2.2	6.3	5.0	5.4
Total S. Hemis., incl.	84.8	96.1	127.5	158.8	199.2	-
Chile	60.2	52.8	71.2	90.6	111.5	-
Peru	19.6	30.1	34.4	41.7	54.4	-
Uruguay	-	4.5	12.1	13.3	17.0	-
South Africa	3.4	7.7	8.1	9.8	10.9	-
Australia	1.6	1.0	1.7	3.4	5.3	-
Local production (tangerine, tangelo)	660	700	811	864	937	-
California	472	533	679	787	867	-
Florida	182	161	126	77	70	-
Arizona	6	5	6	-	-	-

Source: US Customs, code 080520

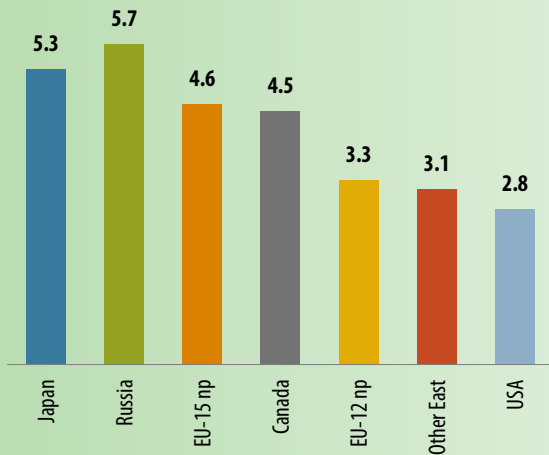
Easy peelers - Canada - Main supplier countries						
000 tonnes	2012	2013	2014	2015	2016	2017
Total	129.9	129.7	123.4	146.0	145.8	152.8
Total N. Hemis., incl.	104.5	104.9	94.7	119.6	116.3	121.0
Morocco	37.3	33.8	28.1	53.4	58.6	68.5
China	28.7	33.4	21.5	19.8	21.4	17.2
United States	17.0	20.2	16.7	18.9	15.8	13.6
Spain	11.7	7.5	18.4	16.6	14.2	12.0
Japan	2.0	2.3	2.6	1.8	1.2	0.9
Total S. Hemis., incl.	25.4	24.8	28.7	26.4	29.5	31.8
Peru	11.1	10.5	13.1	11.3	12.4	14.4
South Africa	6.0	6.2	6.9	5.9	6.1	7.0
Argentina	3.5	3.0	3.9	4.1	3.9	4.8
Chile	2.5	2.3	2.1	3.6	3.3	2.5
Uruguay	1.4	1.9	2.4	1.4	1.9	2.1
Brazil	0.9	0.3	-	0.1	1.9	1.0

Source: COMTRADE, code HS 085020

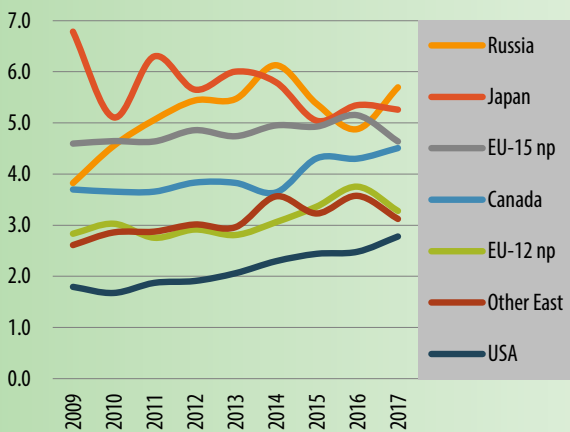
EASY PEELERS

Consumption (2017)*

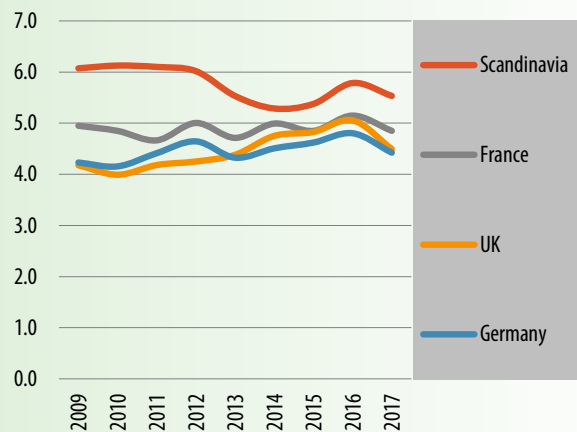
Easy peelers - Consumption in 2017
(np: non producer country / in kg/capita
sources: Customs, Trade map, professionals)



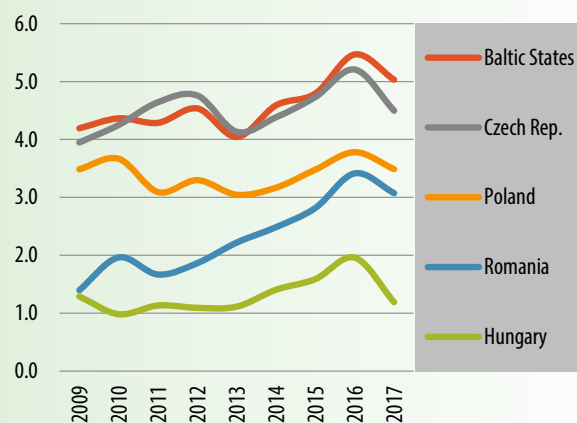
Easy peelers - Evolution of consumption on the leading markets
(in kg/capita / sources: Customs, Trade map, professionals)



Easy peelers - Evolution of consumption on leading West European markets
(in kg/capita / sources: Customs, Trade map, professionals)

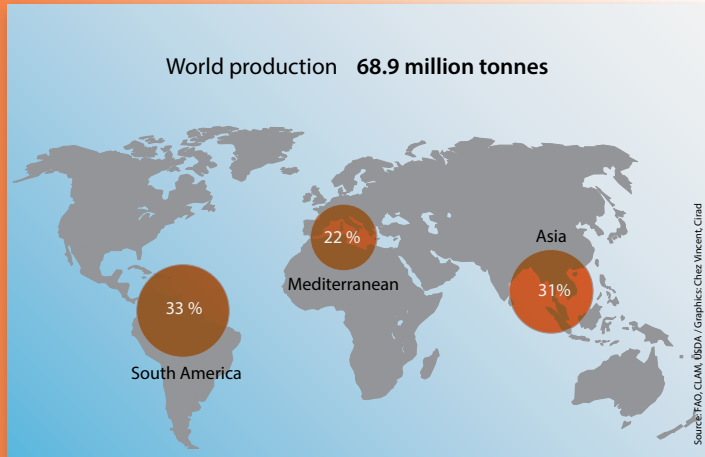


Easy peelers - Evolution of consumption on leading East European markets
(in kg/capita / sources: Customs, Trade map, professionals)



ORANGE

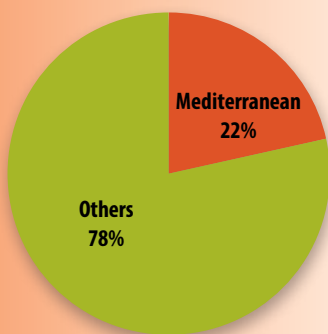
Production (2016-2017)*



Orange - Top 10 producer countries	
000 tonnes	2016-2017
Brazil	14 400
India	7 503
China	7 000
Mexico	4 640
United States	4 615
Spain	3 654
Egypt	3 000
Italie	1 915
Turkey	1 850
Pakistan	1 592

Sources: FAO 2014, professionals

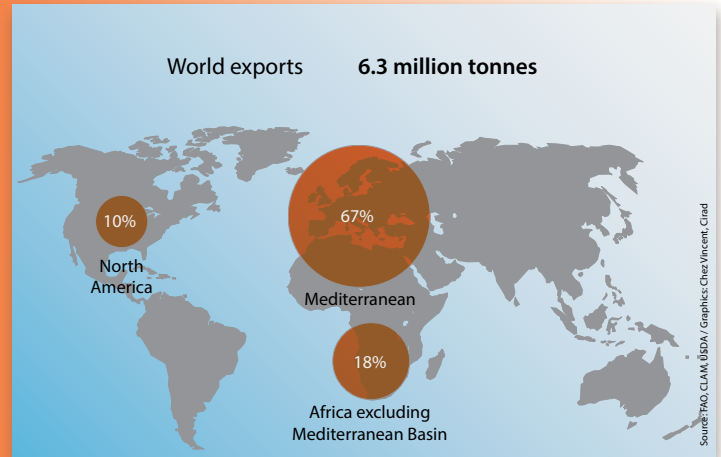
Orange - World Mediterranean production share



Orange - Mediterranean - Production	
000 tonnes	2016-2017
Spain	3 654
Egypt	3 000
Italy	1 915
Turkey	1 850
Morocco	1 037
Greece	866
Tunisia	363
Cyprus	100*
Israel	81

* Estimate / Source: professionals

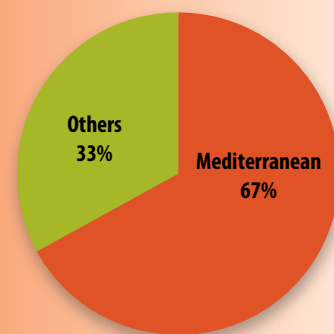
Exports (2017)*



Orange - Top 8 exporter countries	
000 tonnes	2017
Spain	1 560
Egypt	1 520*
South Africa	1 085
United States	618
Turkey	399
Greece	288
Morocco	148
Italy	102

* Estimate / Sources: national Customs, professionals

Orange - World Mediterranean exports share



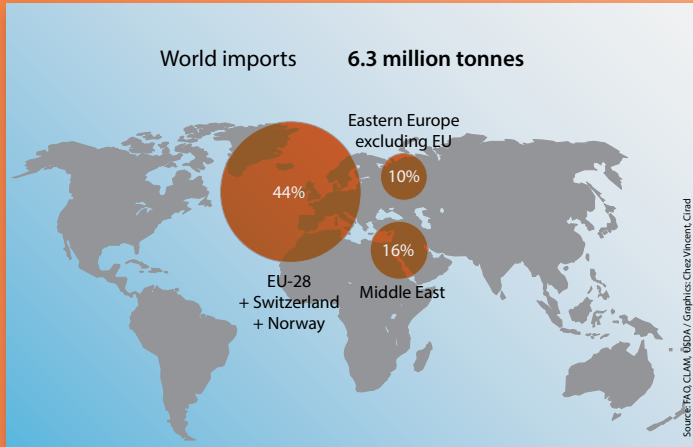
Orange - Mediterranean - Exports	
000 tonnes	2017
Spain	1 560
Egypt	1 520*
Turkey	399
Greece	288
Morocco	148
Italy	102
Tunisia	20
Cyprus	5
Israel	5

* Estimate / Source: professionals

* 2016 for S. Hemisphere, 2016-2017 for N. Hemisphere
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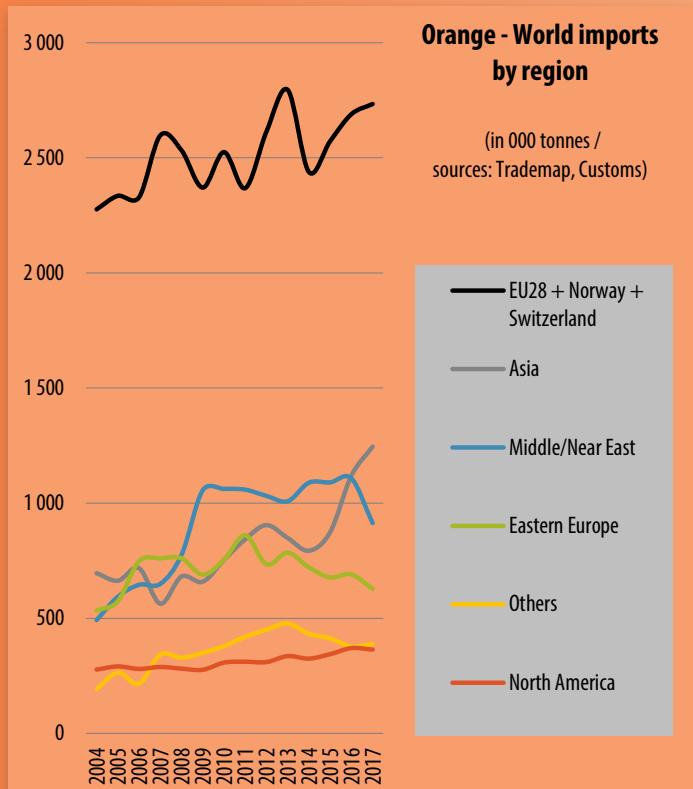
ORANGE

Imports (2016-2017)*



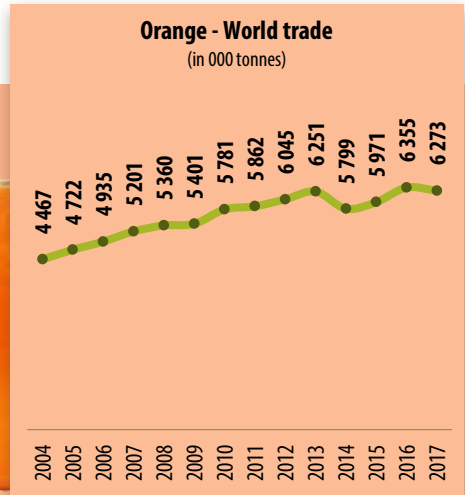
Orange - Top 8 importer countries	
tonnes	2017
China	699 764
Netherlands	594 597
France	514 954
Germany	458 220
Russia	428 481
Saudi Arabia	386 420
United Kingdom	276 048
Iraq	178 413

Source: national Customs



* 2016-2017 or calendar year 2017

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Orange - United States - Main supplier countries						
tonnes	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Total	115 370	137 958	142 580	155 540	163 968	181 261
Total N. Hemis., incl.	16 429	32 530	49 529	44 162	51 970	70 414
Mexico	15 092	27 612	43 650	41 070	50 374	65 600
Morocco	0	3 189	2 634	1 842	54	3 254
Dominican Rep.	1 178	1 547	2 571	972	1 340	1 385
Total S. Hemis., incl.	98 941	105 428	93 051	111 378	111 998	110 847
Chile	51 510	58 856	48 537	59 878	66 142	66 864
South Africa	35 961	36 013	36 293	41 838	37 926	36 400
Australia	11 100	10 433	6 801	7 968	5 663	4 608
Uruguay	0	0	1 420	1 694	2 267	2 823

Source: US Customs

Orange - Canada - Main supplier countries						
tonnes	2012	2013	2014	2015	2016	2017
Total	194 473	197 951	182 262	188 734	206 582	182 742
Total N. Hemis., incl.	149 348	149 663	139 448	143 032	160 905	136 628
United States	145 021	145 415	112 472	124 344	153 301	114 116
Spain	3 001	2 957	23 612	13 644	6 450	16 075
Morocco	453	677	2 447	4 413	601	6 329
Total S. Hemis., incl.	44 472	47 377	41 121	43 987	43 283	42 727
South Africa	36 302	38 504	35 571	38 250	32 285	32 050
Australia	3 107	3 563	2 130	2 780	4 823	4 905
Chile	3 562	4 013	2 107	2 098	2 334	2 362
Argentina	935	289	355	416	1 565	1 949
Uruguay	457	940	890	397	2 122	1 364

Source: COMTRADE

Orange - South America - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	257 264	236 754	194 714	187 784	218 161	224 629
Costa Rica	84 001	66 637	55 399	34 851	57 533	67 992
Guatemala	53 066	48 791	27 523	23 522	36 451	35 162
Paraguay	31 471	29 353	27 184	30 215	12 324	29 644
El Salvador	21 694	27 898	19 349	34 767	28 773	26 703
Brazil	11 873	14 598	16 056	15 450	18 886	18 234
Mexico	35 501	27 912	26 173	25 418	32 564	16 563
Ecuador	3 321	9 449	12 648	12 059	11 728	14 671
Nicaragua	1 330	3 030	2 692	5 131	6 551	4 064
Chile	1 456	2 571	2 546	1 180	3 141	3 355
Argentina	2	-	68	21	4 306	3 266
Peru	829	3 914	2 447	2 818	3 381	3 048
Barbados	1 517	1 531	1 473	1 519	1 523	1 387

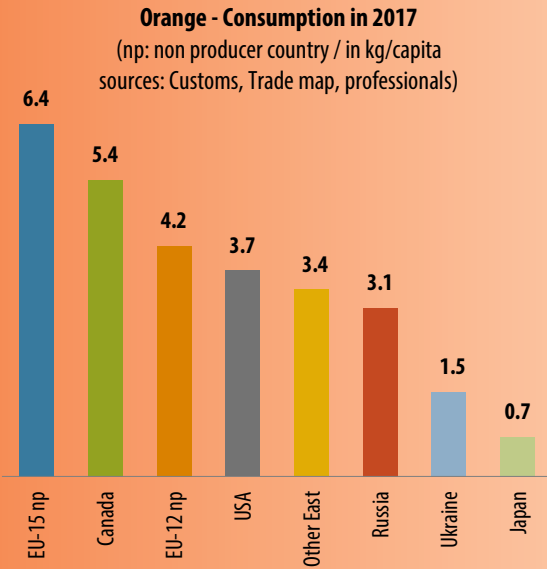
Source: COMTRADE

Orange - Oceania - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	32 722	35 058	28 335	28 711	26 088	31 255
Australia	19 223	20 794	16 611	17 701	14 750	20 435
New Zealand	13 499	14 264	11 724	11 010	11 338	10 820

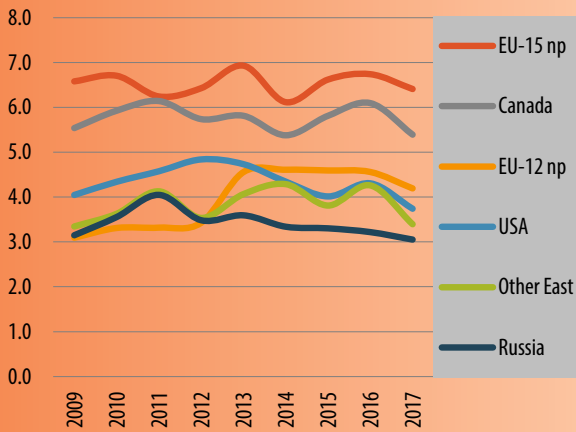
Source: COMTRADE

ORANGE

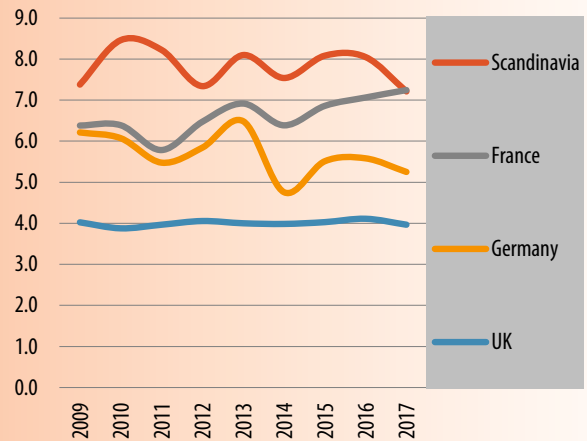
Consumption (2017)



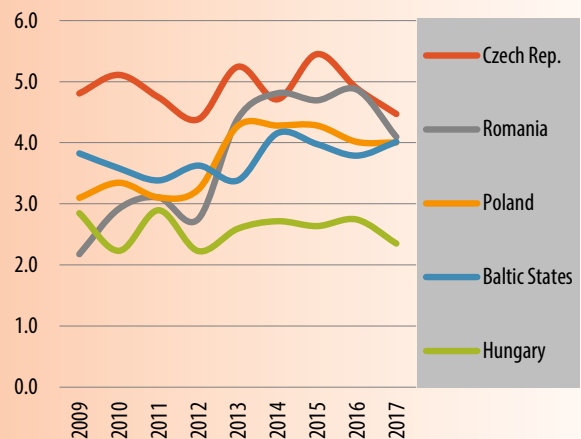
Orange - Evolution of consumption on the leading markets
(in kg/capita / sources: Customs, Comtrade, professionals)



Orange - Evolution of consumption on leading West European markets
(in kg/capita / sources: Customs, Comtrade, professionals)



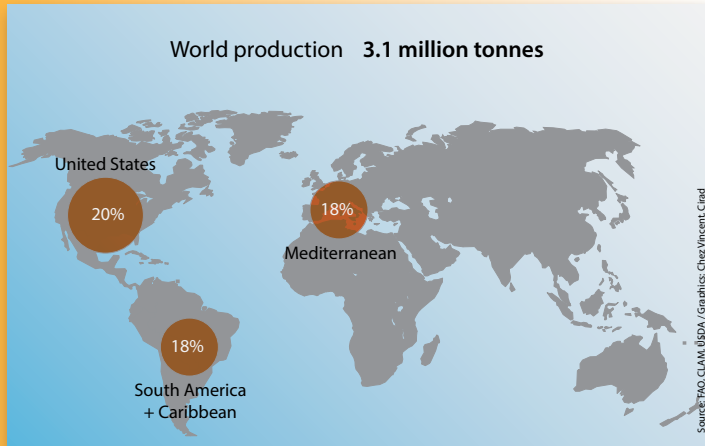
Orange - Evolution of consumption on leading East European markets
(in kg/capita / sources: Customs, Comtrade, professionals)



GRAPEFRUIT

excluding shaddock

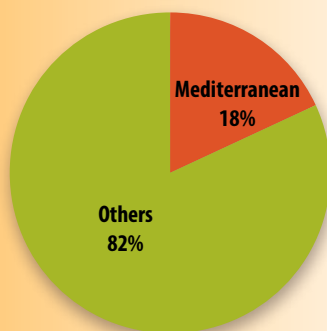
Production (2016-2017)*



Grapefruit - Top 8 producer countries	
tonnes	2016-2017
United States	633 000
Mexico	444 000
South Africa	289 000
Turkey	253 000
Sudan	198 000
Israel	148 000
Argentina	112 340
Spain	80 400

Sources: FAO 2014, USDA, professionals

Grapefruit - World Mediterranean production share

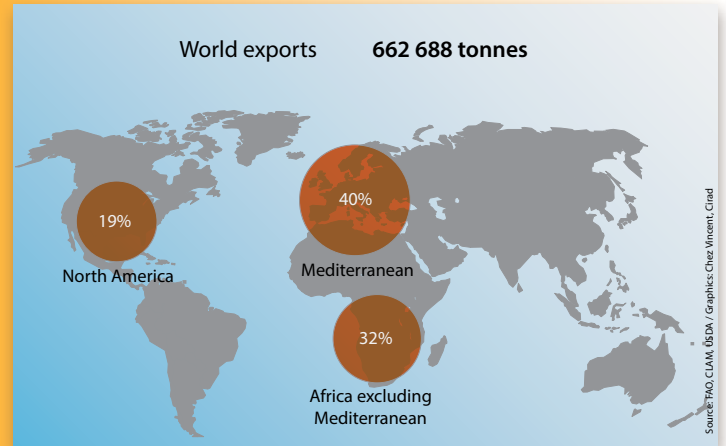


Grapefruit - Mediterranean - Production	
tonnes	2016-2017
Turkey	253 000
Israel	148 000
Spain	80 400
Egypt	42 000*
Cyprus	25 000*
Italy	8 000
Greece	3 000
Morocco	1 000

* Estimate / Source: professionals

* 2016 for S. Hemisphere, 2016-2017 for N. Hemisphere
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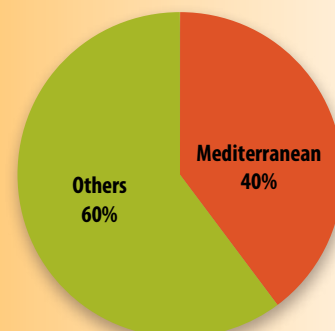
Exports (2016-2017)*



Grapefruit - Top 8 exporter countries	
tonnes	2016-2017
South Africa	202 502
Turkey	125 675
United States	108 508
Spain	59 313
Israel	48 634
Egypt	20 000*
Mexico	19 000
Cyprus	8 502

* Estimate / Sources: national Customs, professionals

Grapefruit - World Mediterranean exports share

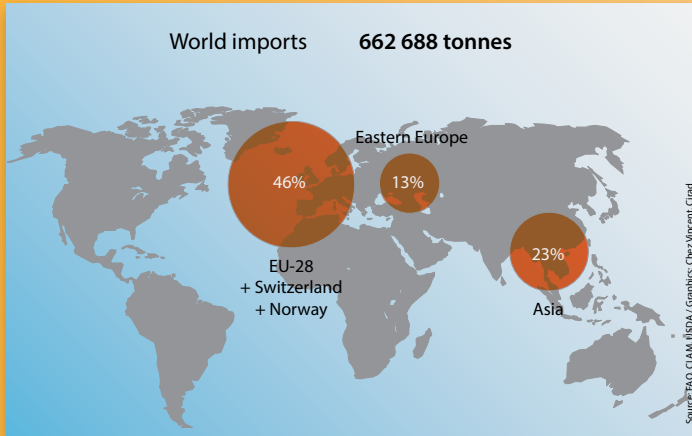


Grapefruit - Mediterranean - Exports	
tonnes	2016-2017
Turkey	125 675
Spain	59 313
Israel	48 634
Egypt	20 000*
Cyprus	8 502
Italy	2 878
Greece	1 074

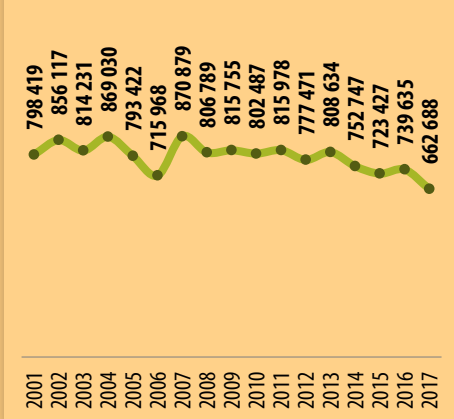
* Estimate / Source: professionals

GRAPEFRUIT

Imports (2016-2017)*



Grapefruit - World trade (excl. shaddock and sweetie) (in tonnes)

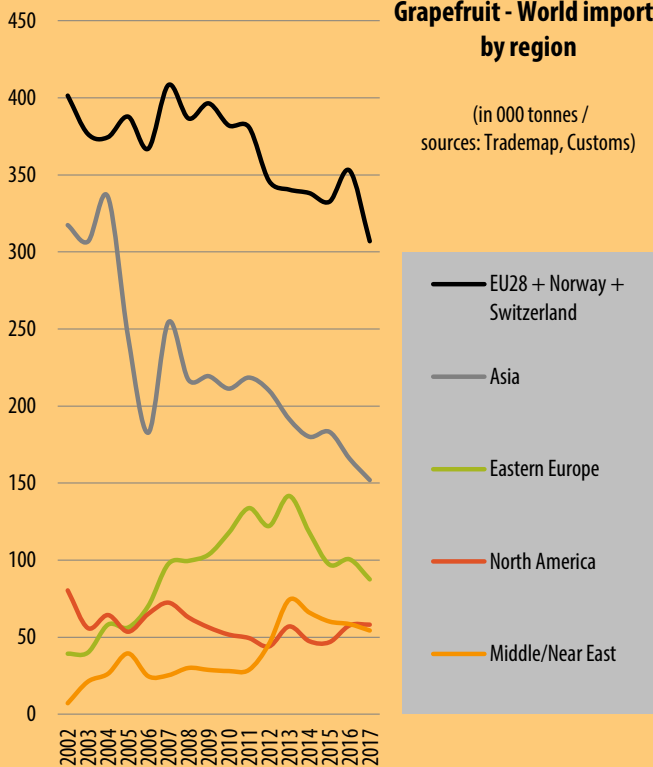


Grapefruit - Top 8 importer countries

tonnes	2017
Netherlands	177 440
France	72 984
China	68 414
Russia	54 667
Germany	53 951
Japan	53 520
Poland	48 812
Canada	32 872

Source: FAO, USDA, professionals

Grapefruit - World imports by region



Grapefruit - United States - Main supplier countries

tonnes	2012	2013	2014	2015	2016	2017
Total	2 851	16 970	9 549	9 500	23 798	25 268
South Africa	75	362	5 085	4 977	12 795	12 702
Peru	41	676	224	559	4 885	6 335
Mexico	2 263	14 838	3 678	2 721	4 016	3 900
Israel	473	1 094	566	442	2 099	2 331

Source: US Customs

Grapefruit - Canada - Main supplier countries

tonnes	2012	2013	2014	2015	2016	2017
Total	41 146	40 012	37 851	37 276	33 875	32 872
Total winter, incl.	34 772	31 786	29 295	29 287	27 850	24 470
United States	33 054	29 533	27 731	27 494	23 077	19 648
Israel	800	1 612	869	1 089	3 291	3 319
Mexico	735	423	369	617	1 370	1 394
Thailand	183	218	326	87	112	109
Total summer, incl.	5 396	8 226	8 556	7 453	5 103	6 708
South Africa	5 267	8 136	8 551	7 451	5 036	6 580
Argentina	127	72	-	1	66	127
Chile	2	18	5	1	1	1

Source: COMTRADE

Grapefruit - South America - Main markets

tonnes	2012	2013	2014	2015	2016	2017
Total	9 612	3 792	3 163	3 612	4 339	3 777
Argentina	1 340	1 564	1 438	1 045	2 442	2 446
Mexico	8 272	2 228	1 725	2 567	1 897	1 331

Source: COMTRADE

* 2016-2017 or calendar year 2017

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Grapefruit - European Union - Main supplier countries						
tonnes	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total	331 758	329 606	324 059	344 403	298 898	205 094
Total N. Hemis., incl.	220 297	246 155	228 565	243 851	198 471	205 094
Turkey	52 786	87 702	70 729	95 573	60 821	92 492
Spain	52 324	48 463	62 870	53 780	57 940	49 420
Israel	45 401	41 664	37 887	33 820	30 290	28 829
United States	40 676	41 760	38 243	31 421	24 425	14 391
Mexico	13 428	11 949	9 725	14 612	13 683	13 411
Cyprus	11 031	8 364	5 557	6 811	5 410	6 547
Honduras	73	20	54	37	53	3
Cuba	-	-	-	-	15	1
Total S. Hemis., incl.	111 461	83 451	95 494	100 552	100 426	-
South Africa	104 725	76 707	90 017	90 464	96 446	-
Swaziland	2 328	3 933	647	4 604	1 902	-
Zimbabwe	2 414	2 133	2 139	1 939	1 692	-
Argentina	1 080	59	-	375	196	-
Chile	105	64	1 660	2 883	174	-
Uruguay	-	-	115	-	16	-

* Extra-EU imports and shipments from main EU producer countries (Spain, Cyprus)
Source: EUROSTAT

Grapefruit - Other West European countries - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	8 786	8 661	8 580	8 524	8 398	8 055
Switzerland	7 445	7 321	7 236	7 158	7 095	6 776
Norway	1 341	1 340	1 344	1 366	1 303	1 279

Source: COMTRADE

Grapefruit - Russia - Main supplier countries						
tonnes	2012	2013	2014	2015	2016	2017
Total	79 075	90 900	73 899	65 012	63 220	54 667
Total N. Hemis., incl.	56 215	58 537	50 880	44 391	45 086	34 746
Turkey	41 595	43 689	40 032	39 354	42 184	32 298
Israel	13 655	13 839	10 324	4 668	2 855	2 218
Morocco	660	612	300	369	47	230
Spain	303	365	219	-	-	-
United States	2	32	5	-	-	-
Total S. Hemis., incl.	20 580	30 129	21 277	19 563	16 965	19 059
South Africa	15 589	25 700	18 092	18 027	15 372	18 243
Mexico	4 020	3 303	2 037	1 075	606	515
Swaziland	622	888	1 076	418	668	132
Argentina	268	55	-	-	262	112
Zimbabwe	81	183	72	43	57	57
Others	2 280	2 234	1 742	1 058	1 169	862

Source: COMTRADE

Grapefruit - Other East European countries - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total, incl.	43 065	50 753	44 043	32 062	37 314	32 851
Ukraine	26 786	31 734	22 432	13 441	18 751	16 938
Belarus	4 753	8 316	8 474	7 021	5 936	6 000
Serbia	4 322	3 745	5 050	4 380	4 875	3 535
Moldova	1 597	1 755	1 698	1 659	1 651	1 480
Bosnia Herz.	1 581	1 285	1 878	1 539	1 565	1 285
Armenia	1 171	1 153	1 306	1 028	1 306	1 191
Macedonia	1 197	1 083	1 481	1 323	1 345	913
Georgia	929	954	834	935	963	797
Montenegro	507	536	643	553	729	593
Albania	222	192	247	183	193	119

Source: COMTRADE

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Grapefruit - Japan - Main supplier countries						
tonnes	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total	134 091	109 116	99 597	82 167	84 581	33 708
Total N. Hemis., incl.	83 238	63 018	55 794	50 442	45 097	33 708
United States	78 598	60 022	51 899	44 032	36 029	18 494
Israel	3 120	2 646	1 501	2 937	5 964	9 555
Mexico	-	-	-	1 783	3 008	5 479
Turkey	1 520	333	2 185	1 684	95	180
Total S. Hemis., incl.	50 853	46 098	43 803	31 725	39 484	-
South Africa	50 853	46 098	43 688	30 625	38 669	-
Australia	-	-	-	982	755	-
Swaziland	-	-	-	116	53	-

Source: Japanese Customs

Grapefruit - Other Asian countries - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	60 447	57 421	70 950	83 623	83 638	98 441
China	43 473	40 065	44 719	51 372	53 518	68 414
South Korea	10 452	11 580	19 491	25 010	23 169	22 998
Singapore	5 252	5 120	5 469	5 568	5 343	5 324
Malaysia	1 270	656	1 271	1 673	1 608	1 705

Source: COMTRADE

Grapefruit - Persian Gulf - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	45 704	74 276	65 990	60 162	58 483	54 339
Saudi Arabia	20 689	50 880	35 554	32 506	31 449	32 965
United Arab Em.	9 073	11 407	11 561	10 925	10 792	11 000
Iraq	9 566	5 757	9 939	7 826	9 856	4 970
Qatar	3 922	3 850	6 044	6 257	3 749	3 000
Kuwait	2 454	2 382	2 892	2 648	2 637	2 404

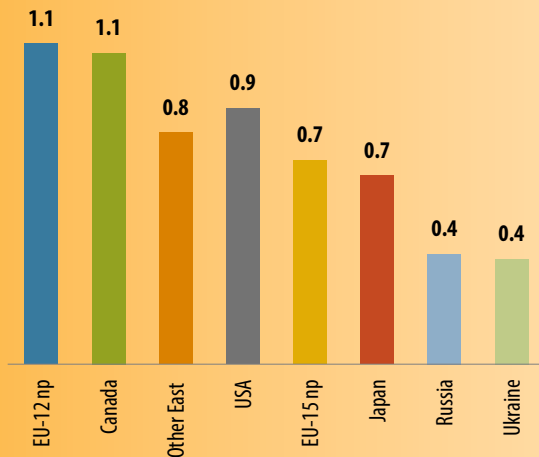
Source: COMTRADE



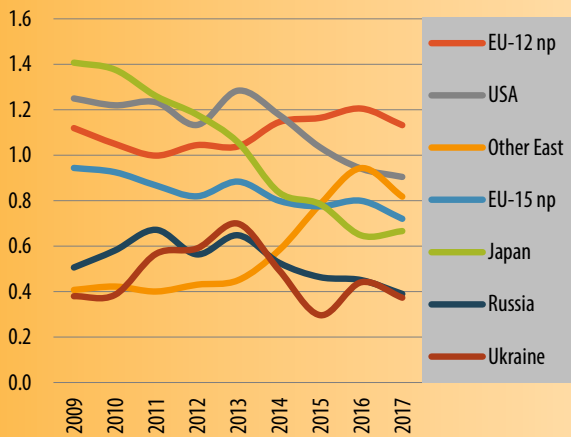
GRAPEFRUIT

Consumption (2017)

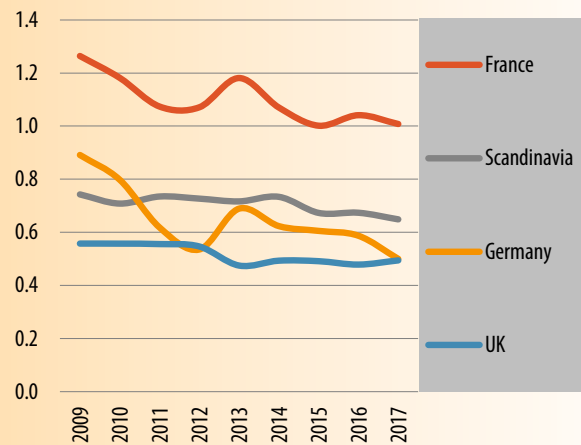
Grapefruit - Consumption in 2017
(np: non producer country / in kg/capita
sources: Customs, Trade map, professionals)



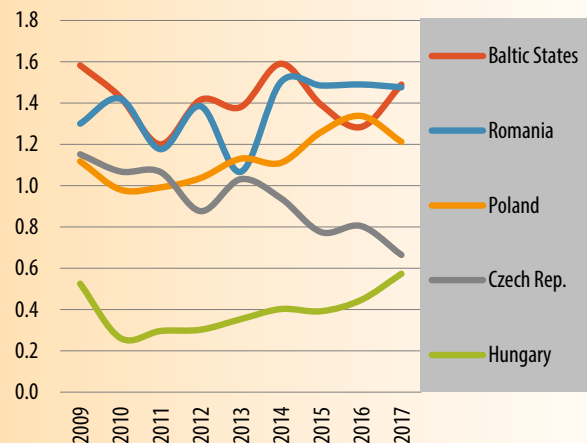
Grapefruit - Evolution of consumption on the leading markets
(in kg/capita / sources: Customs, Trade map, professionals)



Grapefruit - Evolution of consumption on leading West European markets
(in kg/capita / sources: Customs, Trade map, professionals)



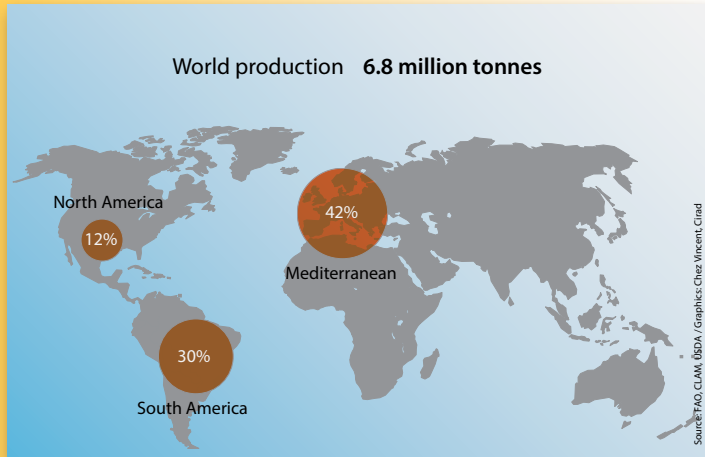
Grapefruit - Evolution of consumption on leading East European markets
(in kg/capita / sources: Customs, Trade map, professionals)



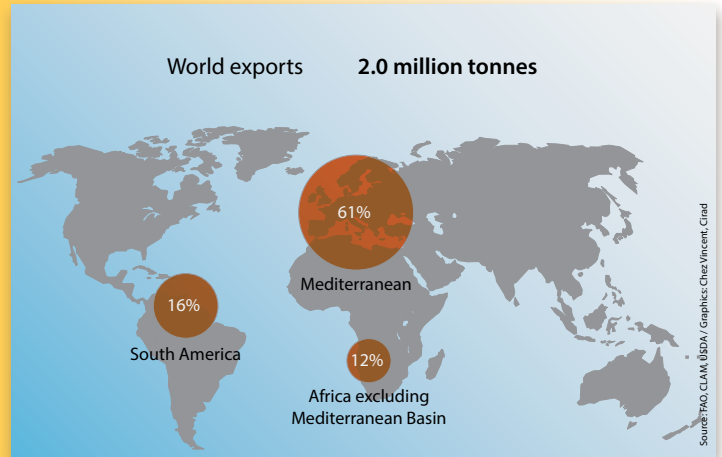
LEMON

excluding lime

Production (2016-2017)*



Exports (2016-2017)*



Lemon - Top 8 producer countries

000 tonnes	2016-2017
Argentina	1 678
Spain	1 160
United States	800
Turkey	750
China	480
Italy	450
South Africa	309
Chile	135

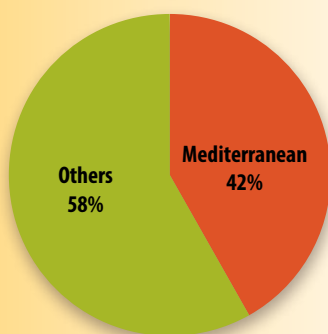
Sources: FAO 2014, USDA, professionals

Lemon - Top 6 exporter countries

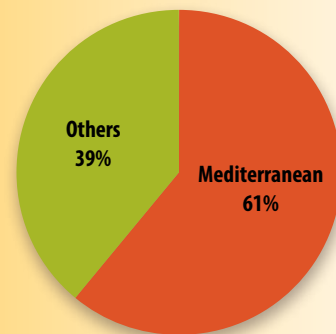
tonnes	2016-2017
Spain	616 000
Turkey	515 000
Argentina	279 000
South Africa	237 000
United States	112 000
Chile	77 000

Sources: national Customs, professionals

Lemon - World Mediterranean production share



Lemon - World Mediterranean exports share



Lemon - Mediterranean - Production

000 tonnes	2016-2017
Spain	1 160
Turkey	750
Italy	450
Tunisia	72
Greece	69
Israel	67
Morocco	40
Cyprus	25*

* Estimate / Professional sources, USDA

Lemon - Mediterranean - Exports

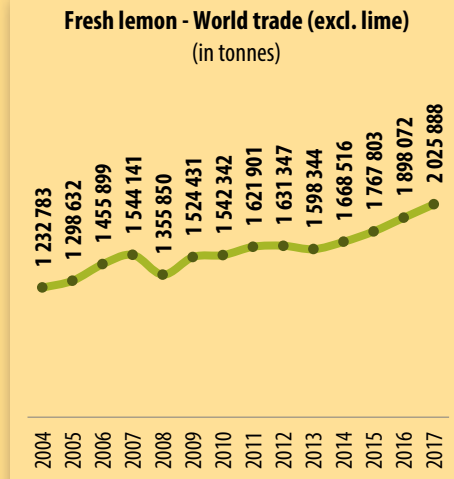
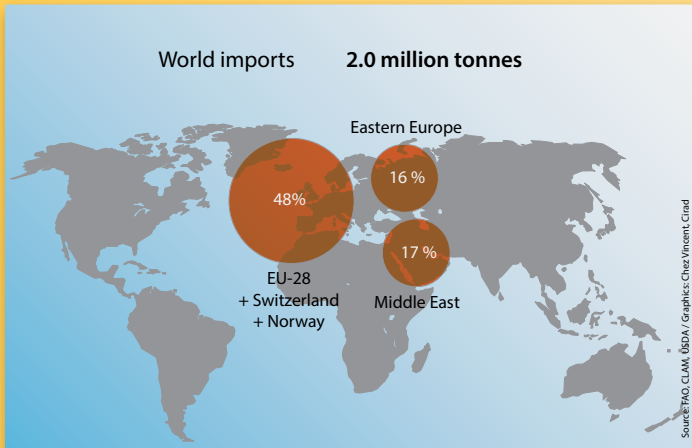
tonnes	2016-2017
Spain	616 000
Turkey	515 000
Italy	41 000
Egypt	23 000*
Morocco	13 224
Greece	4 300
Cyprus	2 000

* Estimate / Professional sources, Customs

* 2016 for S. Hemisphere, 2016-2017 for N. Hemisphere
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LEMON

Imports (2016-2017)*

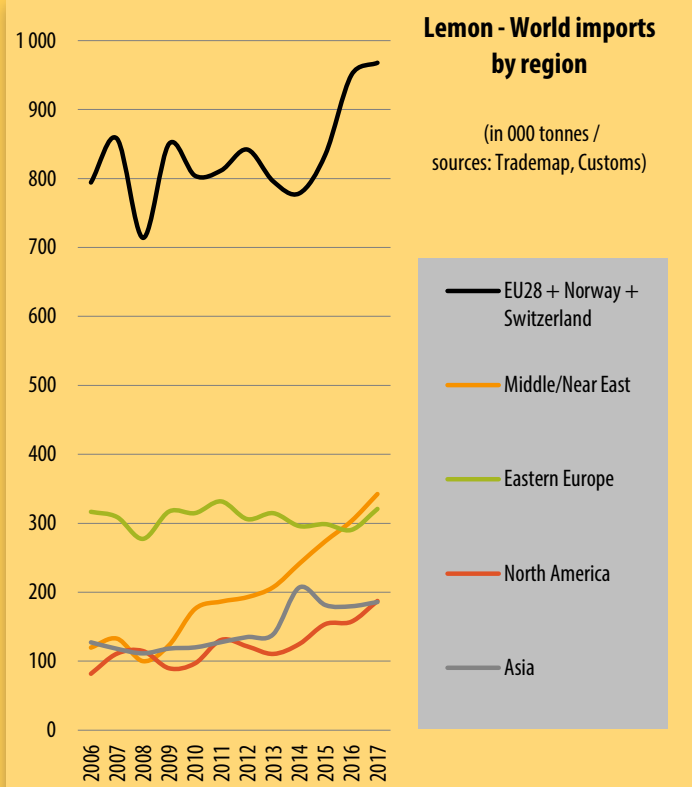


000 tonnes	2017
Russia	209
Germany	171
France	151
Saudi Arabia	128
Netherlands	126
Italy	121
Poland	113
China	62

Source: national Customs

tonnes	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total	45 758	52 203	79 522	78 845	97 695	53 444
Total N. Hemis., incl.	33 437	28 528	44 827	44 617	52 973	53 444
Mexico	32 510	26 362	39 830	42 748	47 433	53 444
Spain	389	1 647	4 845	1 690	5 220	-
Dominican Rep.	270	217	65	118	48	-
Others	268	302	87	61	272	-
Total S. Hemis., incl.	12 321	23 675	34 695	34 228	44 722	-
Chile	11 829	16 780	33 574	31 162	41 246	-
Others	492	794	1 121	3 066	3 476	-

Source: US Customs



tonnes	2012	2013	2014	2015	2016	2017
Total	48 642	50 748	53 928	59 887	62 628	66 389
Total N. Hemis., incl.	35 469	37 476	38 396	41 762	41 525	39 347
United States	30 479	35 115	29 593	30 099	33 542	29 781
Spain	3 940	1 618	8 248	10 735	7 094	8 468
Turkey	1 050	743	555	928	889	1 098
Total S. Hemis., incl.	12 217	12 691	14 511	16 820	20 069	25 042
South Africa	2 560	5 117	8 140	9 118	8 351	12 642
Argentina	9 299	7 263	5 010	6 297	10 075	10 708
Uruguay	71	97	1 027	677	1 104	1 217
Chile	112	110	88	400	418	317
Australia	175	104	246	328	121	158

Source: COMTRADE

tonnes	2012	2013	2014	2015	2016	2017
Total	15 538	13 988	18 723	14 285	15 760	23 225
Chile	4 497	5 768	7 247	5 470	4 378	9 139
Ecuador	1 823	1 169	4 200	3 043	1 749	3 719
Mexico	1 420	1 214	2 887	1 610	2 563	2 928
Argentina	331	966	118	137	3 052	2 898
Brazil	2 381	2 712	2 884	2 356	1 442	2 897
Bolivia	160	227	558	977	2 004	717
Costa Rica	732	550	469	515	497	580
Colombia	4 194	1 382	360	177	75	347

Source: COMTRADE

* 2016-2017 or calendar year 2017
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Lemon - European Union - Main supplier countries						
tonnes	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total	768 147	748 828	801 957	914 943	931 167	622 720
Total winter, incl.	538 895	590 562	610 622	619 789	674 596	622 720
Spain	426 860	452 051	500 692	447 968	523 012	461 236
Turkey	72 299	95 305	75 684	107 077	96 219	104 490
Italy	33 377	34 955	29 539	42 406	42 497	38 730
Greece	3 658	4 951	2 792	15 319	7 140	12 635
Egypt	236	810	166	1 023	2 825	3 676
Cyprus	1 883	1 121	635	1 205	1 292	760
Morocco	192	693	443	1 886	748	613
Israel	262	520	492	1 214	299	270
Tunisia	9	53	38	1 257	463	247
Iran	88	82	99	103	38	49
United States	31	22	42	331	64	15
Total summer, incl.	229 253	158 266	191 335	295 155	256 571	-
Argentina	187 449	105 118	130 267	198 344	158 437	-
South Africa	25 363	36 482	41 364	63 145	78 631	-
Chile	6 333	5 505	9 168	23 910	10 785	-
Uruguay	9 194	10 194	8 933	7 948	7 323	-
Dominican Rep.	632	658	1 075	752	970	-
Brazil	249	190	408	1 056	425	-
Zimbabwe	32	120	119	-	0	-

Source: EUROSTAT

Lemon - Other West European countries - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	26 328	27 676	29 588	32 739	35 103	36 653
Switzerland	18 998	19 516	20 558	22 804	24 038	25 453
Norway	6 781	7 495	8 241	9 004	10 181	10 279
Iceland	549	665	789	931	884	921

Source: COMTRADE

Lemon - Russia - Main supplier countries						
000 tonnes	2012	2013	2014	2015	2016	2017
Total	198 585	204 951	192 278	193 910	188 898	209 766
Total N. Hemis., incl.	137 942	131 080	133 634	128 763	128 260	129 708
Turkey	101 648	109 248	104 036	117 777	105 708	118 653
Morocco	2 172	1 166	4 219	5 416	3 710	6 931
China	3 837	3 682	773	3 844	14 021	2 438
Egypt	601	189	293	1 400	3 877	1 607
Israel	657	134	1 329	326	944	79
Spain	28 964	16 509	22 554	-	-	-
United States	63	152	430	-	-	-
Total S. Hemis., incl.	60 427	72 448	54 933	61 493	56 999	75 021
Argentina	41 853	42 795	23 378	29 473	38 738	43 837
South Africa	18 438	28 387	29 720	30 324	16 966	29 916
Uruguay	136	1 266	1 835	1 696	1 295	1 268
Others	216	1 423	3 711	3 654	3 639	5 037

Source: COMTRADE

Lemon - Ukraine - Main supplier countries						
tonnes	2012	2013	2014	2015	2016	2017
Total	62 319	62 819	52 872	39 818	46 286	45 569
Total N. Hemis., incl.	48 739	45 457	43 036	31 224	32 590	32 324
Turkey	37 464	39 574	36 243	25 854	29 914	29 019
Spain	10 478	5 634	6 653	5 352	2 368	3 051
Egypt	722	236	124	9	299	224
Israel	75	13	16	9	9	30
Total S. Hemis., incl.	12 624	16 092	8 125	7 627	7 605	11 135
Argentina	9 619	12 274	4 758	4 807	6 647	9 790
South Africa	3 005	3 818	3 367	2 820	958	1 345
Others	956	1 270	1 711	967	6 091	2 110

Source: COMTRADE

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Lemon - Japan - Main supplier countries						
tonnes	2012	2013	2014	2015	2016	2017
Total	53 834	49 229	47 299	47 160	49 293	50 800
Total N. Hemis., incl.	38 204	35 268	29 938	30 503	30 374	30 487
United States	36 917	34 614	29 234	30 370	30 215	30 107
Mexico	1 287	654	704	133	159	380
Total S. Hemis., incl.	15 562	13 920	17 360	16 654	18 805	20 275
Chile	14 331	13 170	16 027	15 486	17 282	18 194
New Zealand	725	529	913	816	1 001	1 292
South Africa	506	221	420	352	522	789
Others	68	41	1	3	114	38

Source: Japanese Customs

Lemon - Other Asian countries - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	81 119	89 787	159 553	134 190	130 317	134 926
China	33 970	39 894	100 303	56 460	50 297	62 004
Malaysia	9 387	12 260	15 058	18 278	21 952	18 962
South Korea	10 664	13 950	13 610	17 793	15 823	16 234
Singapore	10 191	12 859	16 970	20 432	14 278	13 259
Indonesia	3 413	2 864	5 539	9 729	14 066	11 646
Philippines	1 390	1 610	2 669	3 033	3 245	6 222
Kazakhstan	4 713	4 628	4 116	7 277	6 429	5 882
Kyrgyzstan	1 088	943	734	752	3 904	630
Azerbaijan	6 303	779	554	436	323	87

Source: COMTRADE

Lemon - Persian Gulf - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	192 765	207 296	241 285	273 965	303 143	342 380
United Arab Em.	80 651	92 491	100 220	118 098	121 857	144 693
Saudi Arabia	70 494	67 276	87 786	104 131	120 962	128 074
Kuwait	24 163	27 379	25 817	27 351	28 290	36 351
Qatar	5 351	6 406	7 888	9 117	12 403	14 000
Bahrain	5 590	6 491	13 112	9 402	9 988	10 000
Oman	6 516	7 253	6 462	5 866	9 643	9 262

Source: COMTRADE

Lemon - Mediterranean - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	34 185	31 121	21 222	25 389	17 667	21 854
Jordan	10 022	14 304	10 447	15 076	14 204	16 836
Turkey	3 094	1 983	2 419	2 982	3 082	4 194
Syria	17 504	8 225	7 529	5 405	160	486
Lebanon	821	4 516	721	534	121	337
Tunisia	-	-	-	7	32	1
Algeria	2 744	2 093	106	1 385	68	-

Source: COMTRADE

Lemon - Oceania - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total	7 052	8 455	8 823	8 570	9 425	7 756
Australia	5 550	7 134	7 665	6 754	7 378	5 597
New Zealand	1 502	1 321	1 158	1 816	2 047	2 159

Source: COMTRADE

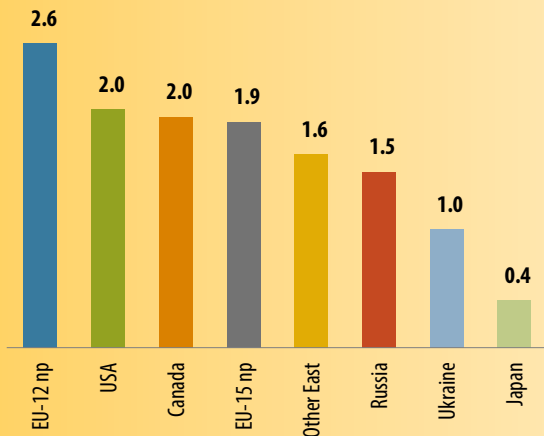
Lemon - Other East European countries - Main markets						
tonnes	2012	2013	2014	2015	2016	2017
Total, incl.	45 079	46 824	50 737	64 981	55 189	65 464
Serbia	15 692	16 372	15 286	16 865	17 600	20 305
Belarus	7 503	8 433	13 517	22 014	10 652	15 000
Bosnia	8 220	7 988	7 794	9 263	9 176	10 312
Macedonia	4 697	4 939	5 320	6 190	6 232	6 623
Albania	2 828	2 463	1 351	2 553	2 759	3 866
Moldova	3 295	3 351	3 570	3 752	3 772	3 756
Montenegro	2 068	2 351	2 407	2 720	2 959	3 402
Armenia	776	927	1 492	1 624	2 039	2 200

Source: COMTRADE

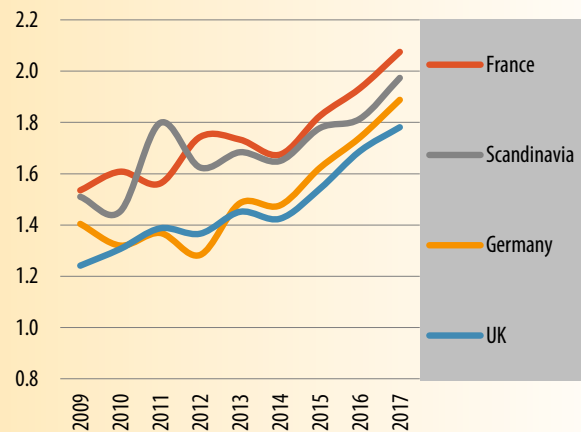
LEMON

Consumption (2017)

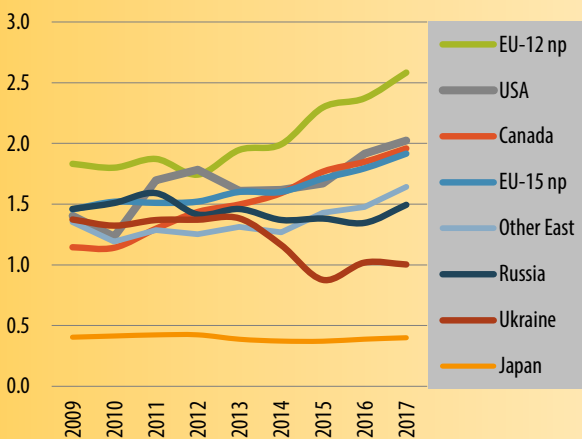
Lemon - Consumption in 2017
(np: non producer country / in kg/capita
sources: Customs, Trade map, professionals)



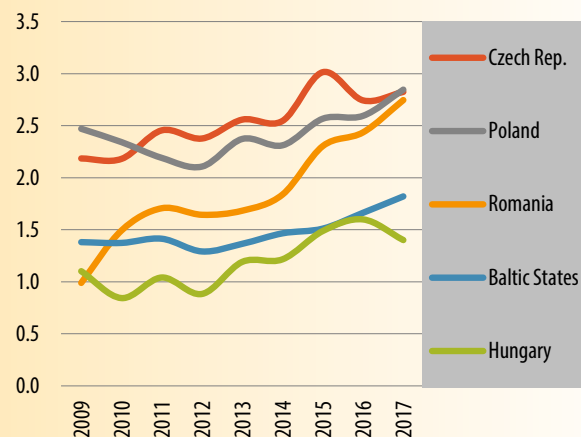
Lemon - Evolution of consumption on leading West European markets
(in kg/capita / sources: Customs, Trade map, professionals)



Lemon - Evolution of consumption on the leading markets
(in kg/capita / sources: Customs, Trade map, professionals)



Lemon - Evolution of consumption on leading East European markets
(in kg/capita / sources: Customs, Trade map, professionals)



Citruses

Diseases and pests

There are numerous pests and diseases, which can have serious economic impacts, possibly requiring quarantine (material subject to regulations concerning movement) and the prohibition of exports to other production zones to prevent the spread of harmful organisms. The use of tolerant rootstocks is an effective measure in the control of several organisms, but the choice of variety is often dictated by the market. In addition to the production of healthy plant material, the control of these pests and diseases generally combines genetic, biological and chemical components in an integrated control framework.



DISEASES	TRISTEZA Virus: <i>Citrus Tristeza</i> <i>Closterovirus</i>	HUANGLONGBING (greening) Phloeme: <i>Liberibacter africanum</i> , <i>L. asiaticum</i>	CITRUS CANKER Bacterium: <i>Xanthomonas axonopodis</i> pv. <i>citri</i>
Distribution	All regions except some Mediterranean countries.	Asia, subtropical and tropical Africa, Middle East.	Asia, South America, Florida, certain regions of Africa.
Symptoms	Dieback of varieties grafted on bitter orange (except lemon trees), vein clearing and stem pitting.	Shoot yellowing, leaf mottling, small poorly coloured fruits.	Corky pustules on leaves and fruits.
Susceptible species	Lime, orange and grapefruit trees.	Broad host spectrum. Affects orange and mandarin above all.	Broad host spectrum. Above all grapefruit, orange, lime and some mandarins.
Transmission	Aphids (<i>Aphis gossypii</i> , <i>Toxoptera citricida</i>).	Psyllas (<i>Diaphorina citri</i> , <i>Tryza erytreae</i>).	By air and water.
Economic impacts	Loss of trees and decreased production.	Tree dieback, shorter orchard life.	Harvest loss.
Quarantine organism	Present in the EU.	Not present in the EU.	Not present in the EU.



PESTS	FRUIT FLY Diptera Tephritidae: various species of the genera <i>Ceratitis</i> , <i>Anastrepha</i> , <i>Dacus</i> , <i>Bactrocera</i> , etc.	THRIPS Thysanoptera: thripidae. <i>Scirtothrips</i> spp. (<i>S. aurantii</i> , <i>S. citri</i> , <i>S. dorsalis</i>)	DIASPINE Hemiptera: Diaspididae. Genera <i>Aonidiella</i> , <i>Unaspis</i> , <i>Chrysomphalus</i> , <i>Cornuaspis</i> , etc.
Distribution	Americas: <i>Anastrepha</i> . Africa: <i>Ceratitis</i> , <i>Dacus</i> . Asia-Pacific: <i>Bactrocera</i> .	Variable according to the species. Present in the Mediterranean area: <i>Tetranychus urticae</i> , <i>Panonychus citri</i> .	Variable according to the species. Present in the Mediterranean area: <i>Aonidiella aurantii</i> , <i>Cornuaspis beckii</i> , etc.
Symptoms	Holing caused by females laying eggs in the fruits.	Greyish patches in a ring around the fruit stalk (thrips feeding on young fruits).	Scale on leaves, shoots and/or fruits, trees weakened in case of large populations.
Susceptible species	Mandarin, orange, grapefruit. Mandarins and thin-skinned oranges susceptible.	Orange, mandarin, tangor, tangelo, lemon, etc.	Broad host spectrum.
Economic impacts	Harvest loss.	Deterioration of the external appearance of fruits.	Deterioration of the external appearance of fruits.
Quarantine organism	Not present in the EU.	Not present in the EU.	Not present in the EU.

Citruses

Cultivation

The world's leading fruit crop grown between the latitudes 40° N and 40° S, citrus fruits were domesticated in Asia. Ancient texts refer to sour citrus fruits in India from 800 BC onwards, and mandarins, oranges and grapefruit in China at the time of Confucius. Trade and military conquests contributed strongly to the spread of citrus. This was first over-land via Asia Minor and the Middle East as Roman and Greek influence spread (citron fruit, bitter orange) and then through Islam and the Crusades (sour citrus). The citron fruit was the first species grown in the Mediterranean several centuries before the Common Era. New citrus fruits such as sweet oranges were introduced around the Mediterranean basin in the Sixteenth Century thanks to Portuguese navigators and the possibility of direct maritime trade with the Far East and China. These species were then disseminated in Africa and America. The first mandarins were introduced in the Mediterranean region much later. The fruit is mentioned at the beginning of the Nineteenth Century in Italy and not until 1850 in North Africa. However, the Mediterranean has been an important diversification zone for the three most important economic species—orange, mandarin and lemon. The grapefruit, *C. paradisi*, a natural hybrid of shaddock, is one of the few commercial citrus fruits to have originated in the Caribbean.

AGRONOMY

The most suitable soils for growing citrus are slightly acidic and well-filtering. The choice of rootstock is one of the essential factors for success, giving tolerance or resistance to biotic (soil pests and diseases, degeneration diseases) and abiotic constraints (acidic or alkaline soils, salinity, reaction to cold or drought, etc.). It strongly influences factors such as vigour, the start of production, and fruit yield and quality. The risk of contamination by tristeza has led to *Poncirus* hybrids (Citrange, Citrumelo) being favoured over the sour orange. Disease-free plant material must be used. Today, new rootstocks are bred by hybridisation or using biotechnologies.

Certification plans have been set up in many countries. They combine the use of healthy plant material and prevention of possible recontamination by inoculum or a disease spread by an insect vector by siting outdoor nurseries in clean zones or by sheltered production in risk zones. The rootstocks are sown, replanted and then shield budded or chip budded, using a bud from a shoot of the desired variety.

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

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

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

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



THE INFLUENCE OF CLIMATIC CONDITIONS

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

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



Strong insolation is also better tolerated when the water supply is satisfactory. Irrigation must be used in citrus growing in arid or very dry regions. Plant water requirements are directly correlated with the climatic parameter total radiation (the main feature) related to insolation, temperature, wind, relative humidity, etc. These parameters are used in water requirement models and irrigation management tools.

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

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

Citruses

Main varieties

photos © Régis Domergue

EASY PEELERS

CLEMENTINE

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



NOVA

Present on markets from mid-November to January, this medium-sized fruit is the result of a cross between common clementine and Tangelo. It has useful qualities: marked skin colour, a deep orange tender juicy seedless pulp, and sweet flavour with low acidity. The fruits must nevertheless be picked rapidly to prevent swelling of the peel. It is widely grown in Spain (Clemenvilla), Israel (Suntina) and Morocco.



MINNEOLA

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



ORANGE

VALENCIA LATE

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

NAVEL

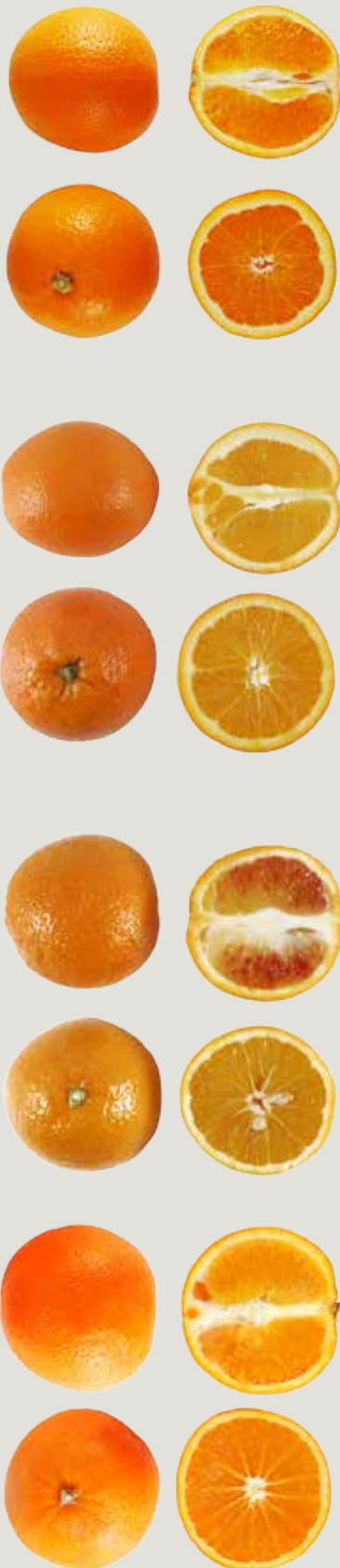
A round to oval dessert orange with a strongly developed navel. The peel is grainy, thin and fairly well coloured. The flesh is crisp, fine and not very juicy. Early cultivars (Naveline) and late cultivars (Navelate, Lane Late) in the Navel group are available on Northern Hemisphere markets from October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

MALTAISE

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

SALUSTIANA

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



LEMON

EUREKA

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



FINO

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



VERNA

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



LIMES

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



Citruses

Harvesting and storage

Citrus fruits are not climacteric, so their quality does not improve after harvesting. Suitable storage can slow their development: an appropriate positive temperature, 85 to 90% relative humidity and ventilation. Fruits must be harvested at a stage of maturation close to optimum ripeness—and hence optimum quality. Quality is characterised mainly by the juice content, the dry extract/acidity ratio and flavour. Fruits must be handled with care during the harvest, avoiding wetting, so as to limit subsequent risks of physiological deterioration or the entry of pathogens. Transport to the packing stations must be carried out as soon as possible.

DEGREENING AND STORAGE

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

PHYSIOLOGICAL DETERIORATION

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

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

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

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

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

FUNGAL DAMAGE

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

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

POST-HARVEST DISEASES	BLUE MOULD <i>Penicillium italicum</i>	GREEN MOULD <i>Penicillium digitatum</i>	BLACK ROT <i>Alternaria citri</i>	BROWN PATCH <i>Glomerella cingulata</i> (= <i>C. gloeosporioides</i>)	BROWN ROT <i>Phytophthora sp.</i>
Symptoms and part of fruit affected	Paling and softening of the skin; white down (mycelium) then appears; covered with blue spores; pulp affected simultaneously.	Slight paling and softening of the epidermis; then bright white down grows in circular layers, covers with green spores from the centre. The entire fruit (peel, pulp) is finally affected, fruit cannot be eaten from the beginning.	Black rot on columella and segments, and/or peel.	Spotting of unripe fruits developing into brown patches that become soft with ripening and then affect the pulp. Marked odour. Degreened fruits very susceptible.	Start: spotted discoloration of peel and then spread of the patches; variable colour with brown patches and finally fruit disintegration. In storage: fine white mycelium with brown areas; characteristic odour.
Infection pathway	Spores on intact epidermis, fruit to fruit contamination.	Spores on wounded epidermis.	Wounds, penetration by the navel and the style scar.	Fruits wounded in the field.	Spores on intact epidermis.
Site of infection	From packing to consumption.	In the orchard, but above all from picking to consumption.	Orchard and warehouse.	Orchard.	Orchard: splashing with water. Packing: contaminated washing water. Storage: fruit to fruit contamination.
Species and varieties susceptible	All varieties.	All varieties.	Navel orange, madarin, lemon.	All varieties, but above all mandarins.	All varieties (orange more susceptible).

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