



STATE OF PLAY AND OPPORTUNITIES OF THE EUROPEAN MARKET FOR FRUIT AND VEGETABLES FROM AFRICAN, CARIBBEAN AND PACIFIC (ACP) COUNTRIES

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ACRONYMS

ACP	African, Caribbean and Pacific
AFD	Agence Française de Développement [French Development Agency]
CAGR	compound annual growth rate
CEPII BACI	Centre d'Études Prospectives et d'Informations Internationales: Base pour l'Analyse du Commerce International [French centre for research and expertise on the world economy: Database for international trade analysis]
CIF	cost, insurance and freight
EU28	28 Member States of the European Union (to 31 January 2020)
FAO	Food and Agriculture Organization of the United Nations
FSC	Forest Stewardship Council
HICP	Harmonised Index of Consumer Prices
HS	Harmonized Commodity Description and Coding Systems
IFOAM	International Federation of Organic Agriculture Movements
OACPS	Organisation of African, Caribbean and Pacific States
TGR	total growth rate
WHO	World Health Organization



SUMMARY

In 2017, COLEACP's Market Intelligence service carried out a study of development opportunities on the European fruit and vegetable market, in particular for produce from African, Caribbean and Pacific (ACP) countries. This new study provides an update on the evolution of the European market, and development opportunities for fruit and vegetables of ACP origin on this market.

1. The EU market for fruit and vegetables continues to grow structurally

There is reason to be optimistic: the trend increase in fruit and vegetable consumption, which was apparent in 2017, has since been confirmed. Overall, the **growth trend is very good**, even though consumption is increasing at varying rates depending on the product. This trend can be explained, in particular, by the fact that fruit and vegetables fully meet the new needs and desires of consumers who are looking for fresh, healthy, easy-to-eat and environmentally friendly products. This trend is reflected, among other things, in the boom in **organic products**, which is catalysing and illustrating the growth of the entire sector. Organic produce is contributing to the revaluation of fruit and vegetable production, whose image has been damaged by the regular media coverage of health scandals and the negative impact of intensive farming practices on the environment. The "vegetalisation" of European diets, associated with the Covid-19 pandemic – during which food took

on a more important dimension – and the strong emphasis on and promotion of organic produce by European supermarkets, should in the future reinforce the positive development of the European market and its attractiveness for suppliers, notably from ACP countries.

In addition to renewed interest in fresh produce in general, **exotic products** are increasingly catching the eye of consumers, especially the younger generation of millennials. They want to discover new flavours and reinvent their diet, while distinguishing themselves from older generations. At the same time, the development of **vegetarianism** and **veganism**, particularly among the younger generation, is giving a central place to fruit and vegetables, and their dietary and environmental benefits.

The price data available in the study show that for fruit and vegetables of ACP origin, **sale prices increased** overall on the European market over the period 2009–19. Tropical fruits such as avocados and mangoes, which are more expensive than the average, have helped to drive the market

upwards due to their increasing popularity on the European market.

In 2019, the total **value** of fruit and vegetable imports into Europe reached 32.1 billion euros. 2.1 billion euros came from ACP countries (excluding South Africa). This represents an increase in total value of 51.7% since 2009, and for ACP countries (excluding South Africa) an increase of 46.5%, based on the linear trend and deflated CIF values¹.

From 2009 to 2019, exports of fresh and processed fruit and vegetables from the ACP countries (excluding South Africa) to the EU28 increased by 22.9% in **volume**.

Looking at the inflation-adjusted values, we can see that the European fruit and vegetable market has grown more quickly by value than by volume, which confirms the attractiveness of the EU market for higher quality fruit and vegetables of ACP origin.

¹ The values of exports or imports mentioned in the study are in constant euros, i.e. adjusted for inflation or "deflated".

Figure 1: Evolution of export volumes of fresh and processed fruit and vegetables (HS07, 08, 20)² from ACP countries (excluding South Africa) to the EU28 (TGR = total growth rate of the linear trend in annual export volumes between 2009 and 2019) (Source: COLEACP from Eurostat)

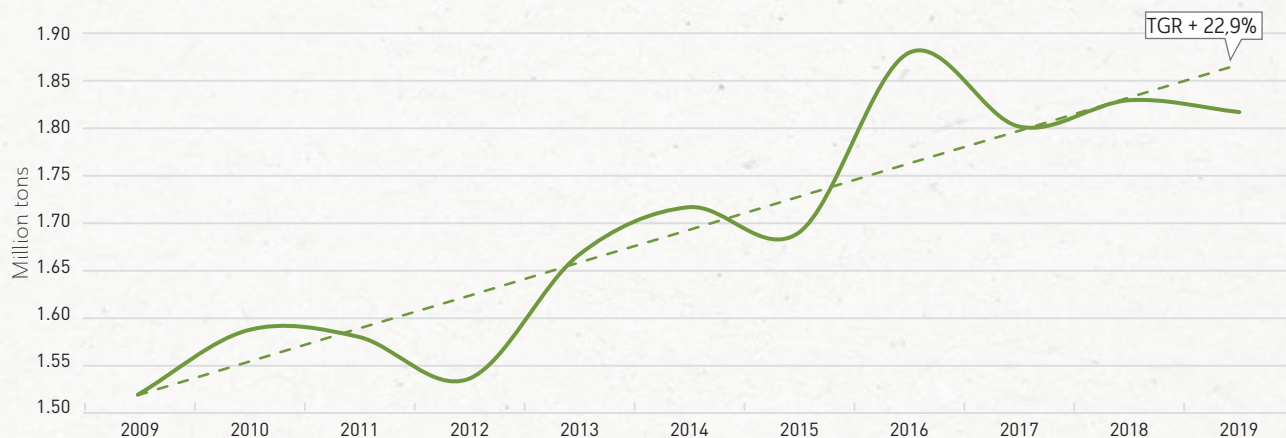
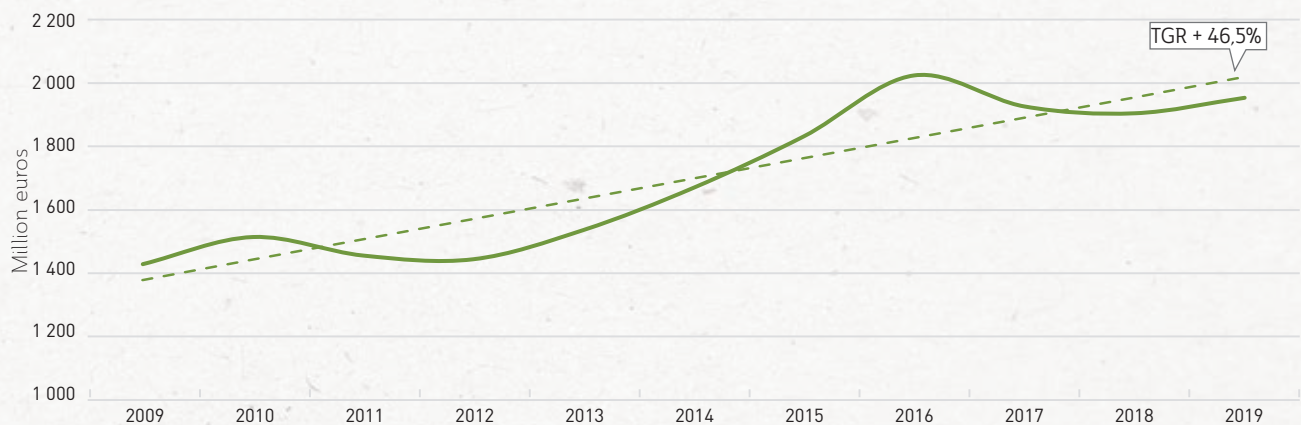


Figure 2: Evolution of export values (CIF) of fresh and processed fruit and vegetables (HS07, 08, 20) from ACP countries (excluding South Africa) to the EU28. The values are deflated by the annual Harmonised Index of Consumer Prices (HICP) using 2015 as the reference period. The dotted line represents the linear trend of the deflated values. (TGR = total growth rate of the linear trend in annual export values between 2009 and 2019) (Source: COLEACP from Eurostat)



² HS07, 08, 20 = classes 07, 08 and 20 of the UN Harmonized Commodity Description and Coding System: <https://unstats.un.org/unsd/tradekb/Knowledgebase/50018/Harmonized-Commodity-Description-and-Coding-Systems-HS>

Compared to exports of fresh and processed fruit and vegetables from the rest of the world to the EU28, exports from ACP countries (excluding South Africa) to the EU28 have grown slightly more slowly between 2009 and 2019 (with a difference of 2.5 and 5.5 percentage points by volume and value, respectively).

If fresh and processed fruit and vegetables are considered separately, similar trends are observed. Export volumes of **fresh** fruit and vegetables from ACP countries (excluding South Africa) increased by 25.8%, compared to 32.2% for exports to countries outside the EU28. Export values increased by 51.2%, compared to 60.2% for countries outside the EU28.

Export volumes of **processed** ACP fruit and vegetables decreased by 7.5%, while there was an increase of 2.7% for exports to countries outside the EU28. Values, on the other hand, increased by 11.1% for ACP countries (excluding South Africa), compared with 24.4% for countries outside the EU28.

These quantitative data ultimately reflect the:

- high attractiveness for all suppliers of a quality-based European market for fresh fruit and vegetables
- relatively lower competitiveness of ACP countries compared to other extra-EU suppliers over the period 2009–19
- poor performance of the ACP countries in the European market for processed food.

2. Fruit and vegetables are winners in developing European distribution

The sale of fruit and vegetables in Europe is still mainly in the hands of the large **traditional retailers**. But the acceleration of digitalisation of purchases confirms the expected evolution in the sale of fresh produce with the arrival of the **tech giants**, particularly Amazon: more and more products are now bought online. This is all the more true since, faced with this new competition, the traditional retailers have also developed their online offer. The future of fruit and vegetable distribution is based on the pattern that increasingly the product goes to the customer, and less and less the reverse.

Since 2017, traditional retailers have also continued to face competitive pressure from **discount retailers**, led by Lidl and Aldi. These chains have been able to transform themselves by basing their upmarket positioning on the quality of their fresh produce, particularly fruit and vegetables. Caught in this vice, traditional retailers have reacted by upgrading their fruit and vegetable section to make it their showcase: this is known as "*attractivité augmentée*" (enhanced consumer appeal). Consumers now judge the quality of the whole store based on the quality of the fruit and vegetable section. This is a way for traditional retailers to distinguish themselves from online suppliers (namely Amazon) by playing on expertise, the relationship with local producers, and the sensory experience of the customer in the shop.

In the end, the Covid-19 situation in 2020 was quite favourable to the large retailers, which remained open constantly and enabled food purchases both in person and online.



3. Sustainable packaging is key in the marketing mix

Product packaging is playing an increasingly central role for brands. Under pressure from civil society, brands must develop increasingly sophisticated packaging to reconcile optimal preservation of product freshness with respect for the **environment**. The stakes are high, as any change in packaging material must not alter the preservation of the product, otherwise it would generate more food waste, contradicting the aims of anti-waste consumption. While plastic is gradually disappearing, the current trend is towards recyclable and biodegradable packaging, sometimes made from fruit and vegetable waste. Some initiatives have even abandoned packaging altogether, such as the innovation of **laser marking** to print a barcode on the fruit itself, pioneered in 2017 and now spreading (at Delhaize in Belgium, for example). The profession talks about "Natural Branding": the best way to pack is not to pack.

In terms of consumer information, expectations mainly relate to the **origin** of products and their **traceability** along the chain. Digitalisation of the market increasingly allows data to be shared. For example, consumers, who are increasingly connected, can find out the composition and origin of the products they buy.

In a political and socio-economic context where climate change is increasingly affecting the behaviour of citizens and consumers, a major challenge for exporters of fresh produce to the EU will be to increasingly demonstrate the **sustainability** of the production and marketing of their fruit and vegetables. The search by European customers for short-circuit supply chains, combined with inward-looking attitudes and

growing nationalisation reinforced by the Covid-19 pandemic, are likely to constitute a constraint for large-scale imports. ACP exporting producers and their European importing and international transport partners will increasingly have to take this into account in their marketing policies. **Data sharing** along the value chain, facilitated by new technologies (e.g. blockchain), should facilitate transparency and the communication of data on compliance with norms and standards certifying the economic, environmental and societal sustainability of production.

One challenge for product marketing in the coming years will be **to inform consumers about the environmental impact** of the product they are buying – all the more so if it is zero (e.g. a zero-carbon footprint). Another key element of a future marketing mix for fruit and vegetables imported into Europe from developing countries, some of which are among the least developed countries, should be communicating the **positive impact on economic development** and poverty alleviation in the ACP countries where these products originate.

4. Prospects on the European market for ACP fruit and vegetable supply

As for all suppliers of fruit and vegetables to the European market, the outlook for ACP exporters is positive, given the growth trend and qualitative development of the market. However, if opportunities exist, so do constraints and even threats, whether linked to conditions of access to the EU market, or to the performance of the ACP offer. The market will remain buoyant for ACP companies, which will continue to adapt to the ongoing evolution of the EU regulatory framework, as well as the expectations

of buyers and consumers. ACP companies that are able to transform these potential obstacles into opportunities to develop and modernise their business in a sustainable manner have a future in the EU and UK markets.

The outlook is different depending on the value chains considered and the corresponding market segments. European imports of some already emerging products in 2017 are soaring, such as sweet potatoes; others that are historically more established continue to gain market share, such as avocados; and others see their market remain stable, such as pineapples. Other market segments have significant potential, such as exotic fruits like papaya, pomegranate and lychee, which are popular with young consumers in search of new flavours. And the European market for organically grown fruit and vegetables is buoyant for all suppliers, including ACP.

The European market for fresh produce will remain very competitive, particularly in the face of historical competition from Central and South American leaders. The continued professionalisation of the ACP offer in promising horticultural sectors (such as mangoes, avocados, bananas, green beans, sweet potatoes, depending on the region) should enable the ACP countries to maintain or develop their place in this market due to the historical relations between Europe and the ACP, and the geographical proximity of many countries (in sub-Saharan Africa).

The evolution of EU regulatory requirements, particularly linked to the European Green Deal and Farm to Fork Strategy, as well as the competitiveness and performance of international players in the EU market, are pulling the whole sector upwards in terms of sustainability. These challenges and requirements are contributing to the continued development of ACP companies exporting to the

EU. This constitutes a virtuous circle for ACP-EU export chains, which in turn are able to play a leading role in the modernisation and development of the horticultural sector at national ACP level.

Exports of ACP-processed fruit and vegetables to the EU could become more important in the future.

The reasons include a rise in healthy and wholesome snacks. Processing is a way of creating local added value on products leading to sorting waste, and the marketing challenges are less complex than for fresh perishable products. Burkina Faso is one example: a traditional mango producer, it has specialised in the production of dried mangoes. By investing in the dried fruit market segment (including organic), ACP countries could develop new export channels to the EU. Another opportunity identified is fruit pulp for the production of fruit juices and other fruit preparations. Many other opportunities for ACP processed



products are potential niches that deserve specific study, and that do not necessarily appear behind the current export statistics to the EU market (e.g. dried bananas and papayas; frozen limes, lychees, ginger, avocados; chilli and ginger pastes). This is why COLEACP has launched a market study specifically for processed fruit and vegetables, which will be available by the end of 2021. This study will integrate all potential markets at international (including EU) and local levels.

This qualitative and quantitative analysis, both global and specific, of trends in the European fruit and vegetable market (mainly fresh) enables us to identify opportunities for value chains in three categories³:

Level 1: Main developing European market segments

Hass avocado, Organic banana, Lime, Coconut, Mango (Amélie, Keitt, Kent), Melon, Papaya, Sweet potato, Pea, Pepper, Taro*, Watermelon, Jerusalem artichoke*, Sweetcorn

Level 2: Niche markets with high development potential

Sugarloaf and Smooth Cayenne pineapple*, Greenskin avocado*, Exotic berries, Snow pea

Level 3: Main stable or mature European market segments

MD2 pineapple, Banana, Plantain*, Green bean, Orange

³ Products marked * correspond to market segments with relatively lower volumes than the others listed here.



METHODOLOGY

1. Background to the study

In 2017, COLEACP's Market Intelligence service carried out a study of opportunities in the European market for ACP fruit and vegetable exporting producers. This publication updates that study, based on recent data and trends, in order to identify ongoing and new opportunities in this market.

This study is based on analyses of statistical data and general trends, and on information collected from contributors during their participation in the 28th edition of Fruit Logistica (5–7 February 2020). This international fruit and vegetable trade fair, held annually in Berlin, enables COLEACP to meet European market players as well as producers from ACP countries. As in 2017, participation in the trade fair also enabled us to enrich this market study, which is intended as a comprehensive statistical and marketing report on key market facts to facilitate understanding for ACP exporting producers.

2. Issues and objectives

2.1. Issues

As in 2017, the study aims to answer the question: "What are the market opportunities for fruit and vegetables of ACP origin with regard to marketing trends in the sector in Europe (consumption, distribution, product and packaging innovations, etc.)?"

2.2. Objectives

The main objective is to determine the current marketing opportunities on the European market for fruit and vegetables of ACP origin.

Secondary objectives include to:

- **observe** market trends for fresh and processed fruit and vegetables (fourth and fifth range)
- **position** the ACP offer quantitatively and qualitatively on the European market for fresh and processed fruit and vegetables

- given the marketing context and characterisation of the ACP offer, **identify** the buoyant market segments and new opportunities for fruit and vegetables from this origin.

3. Methods

3.1. Approach

The work was structured according to the following schedule.

- **January 2020:** definition of the scope of the study (main products concerned, number and types of interviews to be planned, work planning, interview guide) and research/analysis of marketing information.
- **February 2020:** interviews and marketing intelligence at Fruit Logistica 2020 (5–6 February), processing of the information gathered.
- **March–October 2020:** analyses and report writing.
- **Spring 2021:** publication and dissemination of results



3.2. Information sources

- **Statistical sources:** COLEACP from Eurostat (European market), Comtrade, CEPII BACI, Statista⁴. (Note that ACP data are considered to exclude South Africa⁵)
- **Bibliographical sources:** industry press, scientific publications, etc.
- **Interviews:** all interviews were conducted during Fruit Logistica and were carried out with European fruit and vegetable importers. Ten interviews were conducted by COLEACP.
- **COLEACP's network:** especially regarding the impacts of Covid-19 on markets.

3.3. Expected results

- European fruit and vegetable market trends are presented and updated.
- The development of the supply of fruit and vegetables from ACP countries to the EU market is assessed quantitatively and qualitatively.
- The most promising market segments for the ACP are identified, as well as the most attractive opportunities.



⁴ Eurostat: European Statistics, ec.europa.eu/eurostat/
 Comtrade: United Nations Comtrade Database, comtrade.un.org
 CEPII BACI: Centre d'Études Prospectives et d'Informations Internationales – Base pour l'Analyse du Commerce International, www.cepii.fr
 Statista: Business Data Platform, www.statista.com

⁵ South Africa is excluded from the analyses because of its relatively very large trade flows in fruit and vegetables compared to other sub-Saharan African countries, which would distort the analysis. South Africa is not currently eligible for COLEACP support





CONSUMER TRENDS: ORGANIC FOOD AS A DRIVER OF CONTINUOUS GROWTH

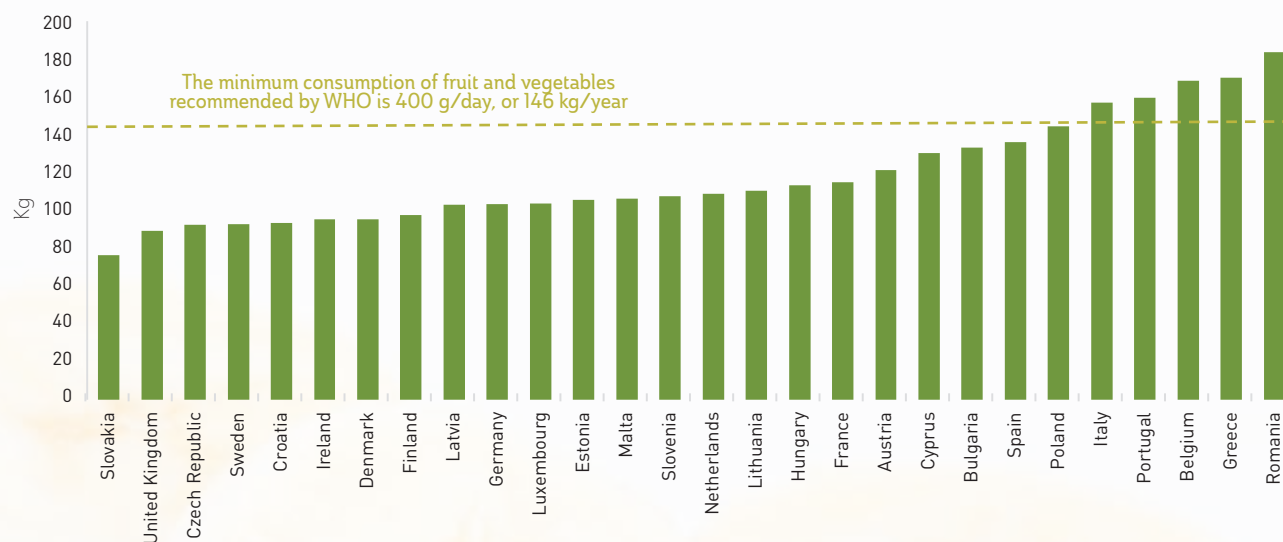
1. Increasingly sustainable consumption

For several years now, the European fruit and vegetable market has been experiencing an increase in consumption, to varying degrees depending on the product. European consumers are increasingly concerned about the origin, composition and dietary benefits of the food on their plates.

According to Freshfel⁶, in 2019, **Romanians** were Europe's highest consumers of fruit and vegetables, consuming an average **503 g per day**, above the 400 g/day/person recommended by the World Health Organization (WHO). However, the average European consumption of fruit and vegetables is still below international recommendations. Although it has increased significantly in recent years, less than one in six Europeans still consumes five portions of fruit and vegetables, equivalent to 400 g, every day. In 2019, together with Romania, only **Greece** (466 g/day), **Belgium** (462 g/day), **Portugal** (437 g/day) and **Italy** (430 g/day) had an intake above the WHO recommended level. This means that the potential for growth in consumption remains high throughout the rest of Europe, in a context of continued research into healthier diets and public policy incentives, and if access to fruit and vegetables for consumers remains the same or becomes easier.

There are large disparities between countries: according to WHO recommendations and Freshfel 2019 consumption data, **23 out of 28 European countries do not consume enough fruit and vegetables**, i.e. less than 400 g/day/person.

Figure 3: Annual per capita consumption of fruit and vegetables, 2019 (Source: Freshfel)



The relative deficiencies of the European population suggest a **growth potential** for fruit and vegetables of ACP origin in Europe in the years to come. In addition, current consumer trends in the EU favour the consumption of fruit and vegetables, as Europeans increasingly want to consume fresh, healthy, convenient and environmentally friendly products. Fruit and vegetable producers, especially those operating in accordance with organic farming principles, have interesting development opportunities in the European market.

This growing interest in consuming fruit and vegetables is also due to efforts made by the sector to offer products with ever greater quality

assurance. This is reflected in the continuous modernisation of agricultural production techniques, a commitment to ethical and responsible production, and the development of new products. Recently developed new technologies allow agriculture to improve yields and efficiency while adapting effectively to new consumer expectations and modernising its image.

The **diverse production origins and their seasonality** also allow European consumers to consume the same type of product all year round. The consumption of mangoes in the EU is a good example. Mangoes were the fifth most imported fruit in the Netherlands in 2019, and the origin

⁶ Freshfel – Consumption monitor (2020)

varies throughout the year: from September to December from Brazil; from December to April from Peru; and from May to August from Côte d'Ivoire, Dominican Republic, Mali, Puerto Rico and Senegal.

However, **traditional agriculture** has not emerged from its crisis. Consumers are still suspicious of it, especially of the production agriculture model that has dominated the past 70 years. While this form of agriculture has made it possible to meet the growing food needs of the population, at the same time it has contributed to the degradation of ecosystems. Moreover, consumer distrust is reinforced by certain events, such as the controversy over the use of glyphosate. In general, Europeans are increasingly concerned about the environmental consequences of agricultural production, and thus about organic farming.

23 European countries do not consume enough fruit and vegetables

According to IFOAM (the International Federation of Organic Agriculture Movements), retail sales of organic products in Europe are increasing by



Photo 1. A juice machine marketed by Zumoval*

* Copyrights of the photos are indicated at the end of the study

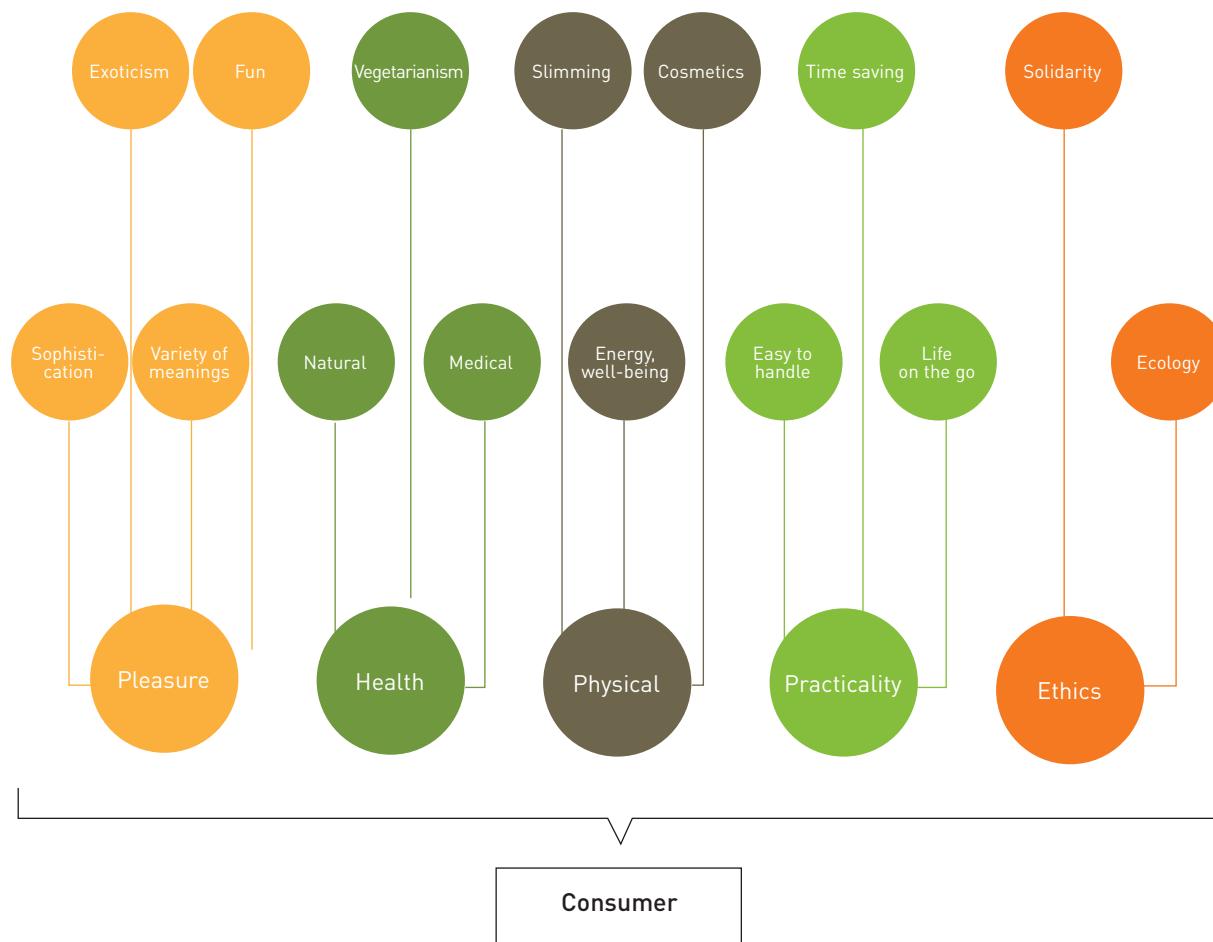
8% per year. Producers are seeking to seize this opportunity and are steadily increasing the variety of organic fruit and vegetables on offer. Organic seems to be the route by which fruit and vegetables are regaining their true value in the eyes of consumers.

Many European supermarkets are focusing on this segment by increasing the share of organic produce in the fruit and vegetable section. Some are making a promise to consumers (like Carrefour through its "Act for Food" campaign). All of them are increasingly emphasising short-circuit supply chains by promoting their local producers located near the shops.

The segment of fresh fruit consumed as **pressed juice** in shops is also gaining ground. In 2018 in France, for example, the market segment saw a 32% increase in sales. We are also seeing an increase in the number of fruit and vegetable juice bars, as well as juice dispensers in supermarkets (in France, fresh juices squeezed in shops recorded an increase of 12% in litres and 15% growth in value in 2019 compared to 2018). Sales of juice machines to individuals are also developing; for example, the Spanish company Zumoval markets a machine for squeezing fruits, including robust ones such as pomegranate, while guaranteeing optimal preservation of vitamins. Another example is that more and more shops are selling machines that enable consumers to cut up fresh pineapple.

2. Health, organic, practicality and snacking

Figure 4: Trends in food innovation (Source: FoodDrinkEurope, Data and trends: EU food and drink industry 2018)



2.1. Health is a major concern of European consumers

Following the example of Asian practices of **medication through food**, Western countries are witnessing a rise in their populations' concern for the benefits of a varied and balanced diet. This trend has become more pronounced since the beginning of the Covid-19 pandemic. The importance of food for health is becoming better recognised, and tends to influence consumption behaviour in a lasting way. Thus, more and more European consumers want to maintain their health by adopting a healthier diet, seeking to improve their health through products rich in vitamins, calcium, fibre, etc. This has led to an increase in the quantity and variety of fruit and vegetables consumed and, for example, to a growing demand for gluten-free products. In addition, consumers are increasingly concerned about processed or treated fruit and vegetables and industrial products to which additives, preservatives and other substances are added to the "natural" basis of the product.

Organic food is becoming more and more important in the consumption habits of Europeans and is now a determining factor in the development of the agricultural sector.

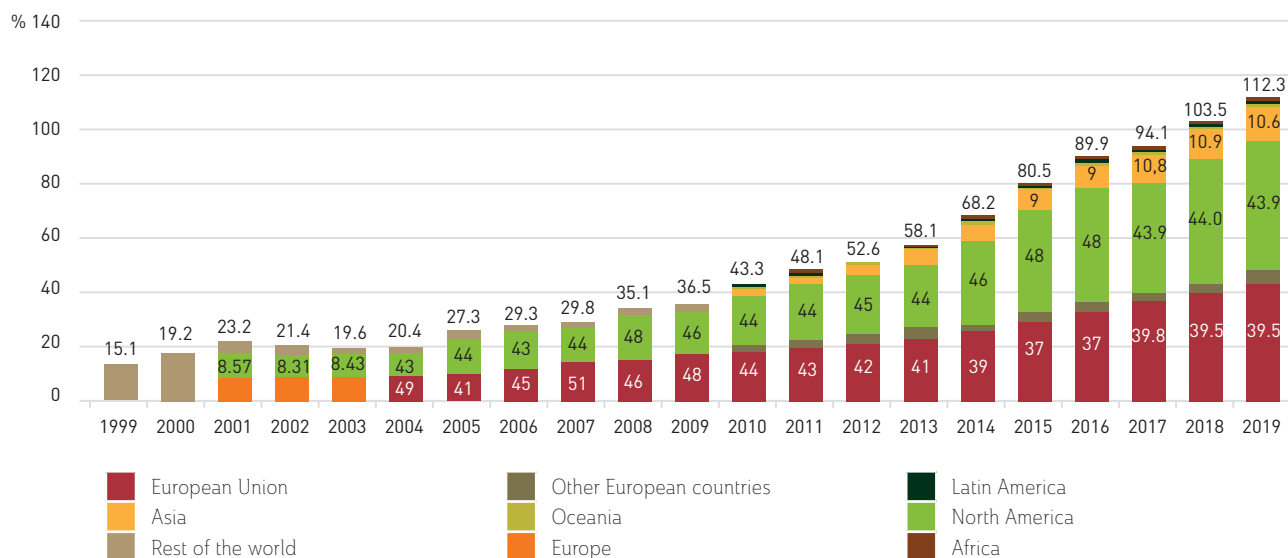
This change in dietary behaviour (combined with people's desire to have less impact on the environment) is reflected in a decrease in the consumption of animal products, and the development of diets such as **flexitarian**, **vegetarian** and **vegan** (see section 4 below). The perception of meat consumption has changed: meat is now less of a social marker for a well-to-do lifestyle. More and more Europeans are limiting their consumption of meat for environmental and health reasons. According to a study conducted in 11 European countries, more than half of consumers said that environmental concerns have some (42.6%) or much (16.6%) influence on their eating habits ⁷. Just over 40% of consumers said they had either stopped eating red meat or reduced their consumption. Almost 50% of consumers also stated that they were willing to eat more vegetables/plant-based foods.

2.2. The growth of organic farming

Organic, a growing alternative

The controversy surrounding glyphosate in the media poses a challenge to consumers and invites them to reflect on their traditional consumption habits. The recurrent topic of pesticides in the media contributes to citizens' mistrust of the food industry. At the same time, it reinforces confidence in fresh and especially organic products. Although often more expensive, organic products are still consumed, partly because they are perceived as being good for health. The trend is no longer a fad, but is becoming increasingly entrenched in the consumption habits of Europeans and is now a determining factor in the development of the agricultural sector.

Figure 5: Development of the global organic food market from 1999 to 2019 (in billion euros) (Source: Agence Bio)



The growth in demand for organic products is mainly concentrated in the United States and Europe, but it can be found all over the world at different scales. The organic market is estimated to have exceeded 100 billion euros in sales worldwide in 2018⁸. In 2019 the market was worth more than 112 billion euros.

In 2019, the **USA was in first place** with 40% of the global organic market. Total organic sales (food and non-food) were worth US\$55.1 billion in 2019, of which \$50.1 billion was for food products. **The US organic market has more than doubled in ten years.** Organic products accounted for 5.8% of the food market in 2019.

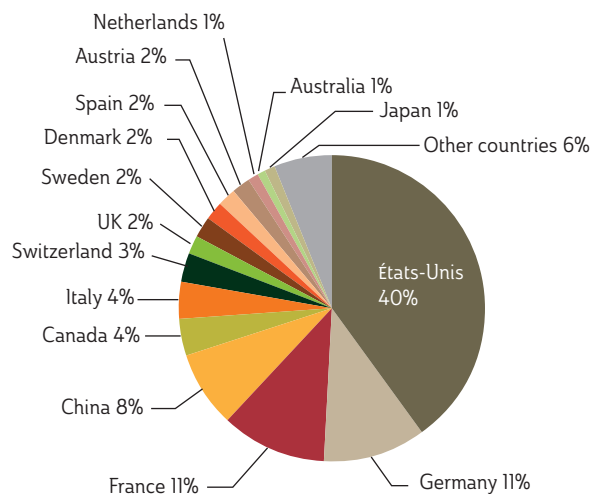
Of the top ten global organic markets, seven were located in Europe in 2019. The European organic market amounted to 48.0 billion euros in 2019, 42.8% of the global organic market. 44.3 billion euros of this was in the EU28 (39.5% of the global organic market).

Germany was in second place worldwide with 11% of the organic market in 2019. In that year, the German organic market grew by 9.7% to 11.97 billion euros and the market share of these products approached 5.7%. More than 96% of German households bought an organic product at least once in 2019. **France was the third largest market** for organic products in the world in 2019. It reached 11.93 billion euros in 2019 (+13.5% compared to 2018) with a market share

⁷ Euractiv – EU consumers open to exploring more sustainable diets, but lack information to do so (2020).

⁸ Agence Bio – l'Agriculture Bio dans le Monde (2019)

Figure 6: The main organic markets in 2019 (Source: Agence Bio)



(excluding out-of-home catering) of 6.1%. According to the Agence Bio/Spirit Insight Barometer ⁹, 89% of French people said they consumed organic products in 2019, including 71% of French people at least once a month and 47% at least once a week.

Even if the growth in the purchase of organic products is undeniable, it is still relatively weak compared to conventional products, and is led by fruit and vegetables, which alone represent up to 40% of organic food purchased. The opportunity for development for suppliers to the European market appears all the more important.

Europeans are increasingly buying organic food, especially fruit and vegetables

The growth of organic farming in the European Union is exponential and continues to progress. The most consumed organic products in France are fruit and vegetables, followed by dairy products: respectively 56% and 51% of French people say they consume them. At EU level, Europeans spent an average of 76 euros per person in 2018 on organic food products.

Germany remains the European organic stronghold with a turnover of €15 billion in 2020, up from an estimated €12.3 billion in 2019, followed by France and Italy. But the German dynamic is less strong than that observed in France and could well be overtaken in the years to come. In Europe, Switzerland has the highest per capita consumption value of organic products, reaching 288 euros per year. This is followed by Denmark with 278 euros, Sweden with 237 euros, Luxembourg with 203 euros and Austria with 196 euros.

Increase in organic farmland

Another sign of the structural growth of organic farming in Europe is that local supply is increasing the area under organic crops. The area under organic farming in the EU more than tripled between 2000 and 2018. In particular, more than 1 million hectares of land were converted to organic farming between 2016 and 2017 ¹⁰. The organic agricultural area in the EU represented 13.8 million hectares in 2018, which is 8% of the total agricultural land in the EU, and 19% of the global organic area. In the same year, the

number of EU organic farmers also increased by 7% compared to 2017.

Another indication of the growing success of organic food is its place in supermarkets (see section 4 below) and restaurants: in France in 2018, 86% of restaurants included organic fruit in their menus, 80% organic dairy products and 79% organic vegetables. In the UK in 2017, half of restaurant chains used organic products: McDonald's accounted for 10% of this segment in 2019.

Organic markets favoured by short-circuit supply chains

The search for local products is another basic trend structuring the purchases of European consumers. "Locavorism" provides a favourable context for the emergence of organic products in Europe – but by definition this does not facilitate the consumption of *imported* organic products such as fruit and vegetables of ACP origin. According to a survey conducted in seven EU countries, seven out of ten Europeans identify with ethical purchasing practices and express a clear **preference for buying local products**¹¹. In this sense, the consumption of organic products goes beyond the search for a balanced diet. Overall, consumers place **more importance on consuming local produce** than on organic produce. In Europe, the local origin of fruit and vegetables is the most important factor for consumers in Germany and Switzerland. In contrast, Dutch, Belgian and Italian consumers are more interested in the seasonality of products.

⁹ Agence Bio/Spirit Insight - 18e Baromètre de consommation et de perception des produits biologiques en France (2021)

¹⁰ FiBL – The Organic Market in Europe 2017: Current Statistics (2019).

¹¹ Food Navigator – Local brands are winning hearts and minds: Rising demand for local food in Europe (2018).



The Covid-19 pandemic accentuates trends

The Covid-19 crisis has had an impact on consumption patterns, particularly among Europeans. Consumption of fruit and vegetables in the EU increased even though many restaurants and markets were closed, especially during March to May 2020.

The change in the European consumer's basket occurred in two phases. The beginning of the spread of the virus in Europe went hand-in-hand with the purchase of products with a long shelf life (flour, dough, frozen food). After the panic period, consumers turned more to **local (fresh)** products, as the closure of national borders was a major obstacle to the export and import of products.

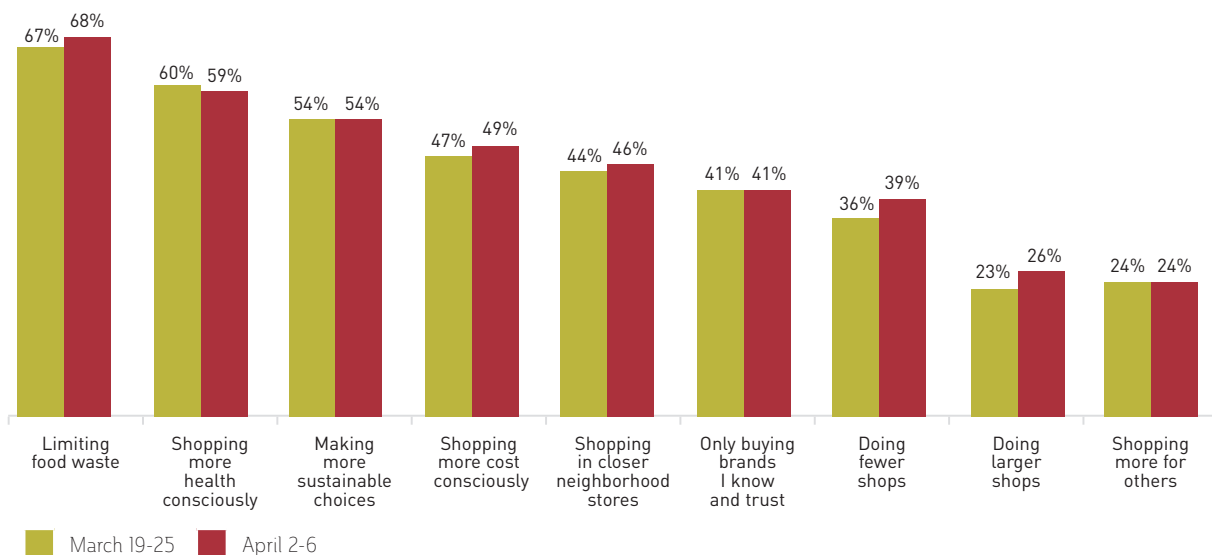
The health crisis has also increased consumer awareness of the importance of food for **health**. The sale of fresh fruit and vegetables has increased, especially those from **organic** farming. These changes in consumption are in line with, and confirm, the trends previously demonstrated in this study. Organic farming is thus an interesting area of business development for producers in ACP countries.

Consumers' food choices have also become more rational with the Covid-19 crisis. Demand is mainly focused on fresh, healthy, vitamin-rich, reassuringly tasty and **long-lasting** fruit and vegetables such as apples, kiwis and bananas. This shift in diet is taking place at the expense of more exotic products such as passion fruit. Conversely, consumption of more **familiar** fruits is increasing, even if they are imported, such as mangoes from West Africa or avocados from Kenya.

Thus, in addition to logistical and production disruptions, the Covid-19 crisis has forced ACP fruit and vegetable producers to adapt their supply to the **new European demand**. The challenge is to produce fruit and vegetables with a long shelf life and high nutritional properties, in particular by complying with organic farming specifications. Moreover, European consumers are increasingly concerned about the social and environmental conditions of production, which is an additional element to take into account.

Although the Covid-19 pandemic has accelerated many existing trends, the attractiveness of convenience products has decreased, notably because of more sedentary lifestyles (telecommuting, restaurant closures, etc.). Consumers have also taken more pleasure in cooking, and in eating less processed products. The speed at which things return to normal will determine whether or not this development will continue

Figure 7: Consumers expect to change their shopping habits permanently after the COVID-19 pandemic (Source: Accenture)



The gradual emergence of bulk

Bulk purchase is more concerned with **dry food products**, such as starchy foods, flour, sugar, dried fruit and oilseeds (as well as cleaning products such as soap, washing-up liquid, etc.). It reduces packaging waste because consumers can bring their own containers. This practice appeals in particular to consumers who are sensitive to the environmental impact of food and packaging, turning more towards organic, fair trade and local products. A study by PwC points out that, already in 2018, 94% of German consumers would be satisfied if their purchases were less packaged, and 83% felt

that the packaging of certain products, particularly fruit and vegetables, was superfluous¹².

Bulk buying is growing in popularity. At the European level, Enomia estimates in its 2020 study that the bulk market in the EU will reach 1.2 billion euros in turnover by 2030, and possibly up to 3.5 billion euros in the best-case scenario. Other indicators are also on the rise – number of jobs in the sector and number of shops also show an interesting increase and testify to the development of this market segment¹³.

The first bulk shop in Europe opened in 2007 in London under the name “Unpacked”. Since then, the number of such shops has increased all over Europe; in Belgium the number doubled between 2017 and 2019. Some shops are trying to meet current expectations of consumers, such as the Berlin-based shop Original Unverpackt, which has developed its unpacked offer online and ships products throughout the EU.

The majority of bulk outlets are **independent and/or specialised organic** shops. However, in European countries where consumers mainly buy in **supermarkets**, the latter are increasingly developing their bulk offer. In France, for example, 50% of bulk sales are made in specialised shops and the other 50% in supermarkets. In fact, 70% of French supermarkets have a bulk section. Carrefour shops devote large sales areas (400–500 m²) to this type of product, and more than 150 Franprix shops have been equipped with bulk distributors in the space of six months to meet consumer demand. The presence of these supermarkets in other European countries, such as Carrefour and its shops in Belgium, Spain, Italy, Poland and Romania, suggests future development of the bulk market throughout the EU.

Bulk buying is a new challenge for retailers, and mainly concerns groceries such as oilseeds, almonds and other nuts, dried fruits, pulses and cereals. This sales method also concerns organic fresh fruit and vegetables, albeit to a lesser extent. Because products from organic farming must be distinguished from those from conventional farming, non-organic shops often sell organic fruit and vegetables in plastic packaging, in particular

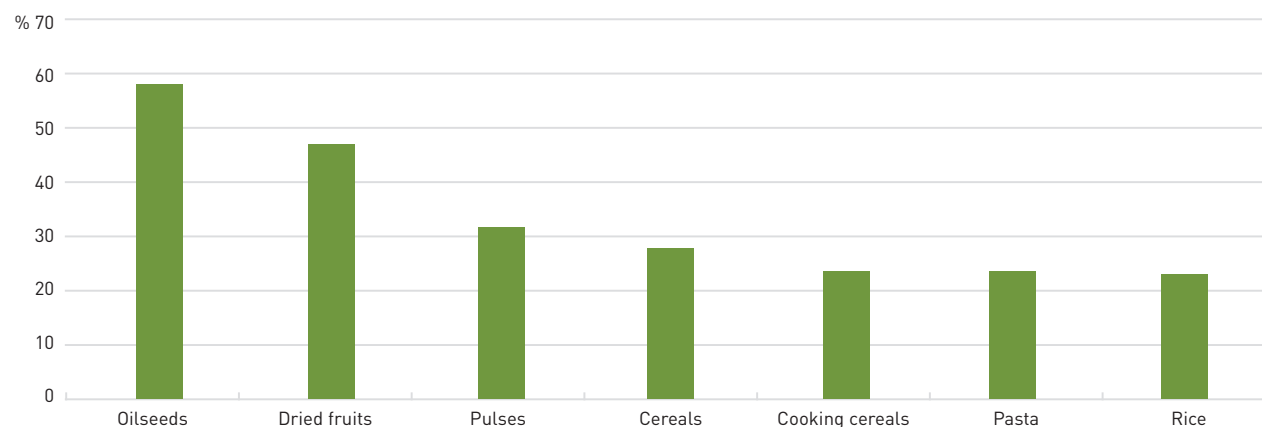
¹² PwC – Verpackungen im fokus. Die rolle von circular economy auf dem weg zu mehr nachhaltigkeit (2019).

¹³ Enomia – Packaging free shops in Europe – an initial report (2020).

to avoid contamination. In order to limit this superfluous packaging, some supermarkets, such as Carrefour in France and Rewe in Germany, have reserved bulk displays exclusively for organic fruit and vegetables.

The bulk trend is part of the overall “zero waste” trend, particularly for food packaging. This change in European consumption patterns is supported by the EU. The new 2020 **Circular Economy Action Plan** calls for all plastic packaging on the EU market to be recycled and/or recyclable by 2030. The EU’s action against plastic pollution is also reflected in a ban on the marketing of certain single-use plastic products, such as cotton buds, disposable tableware and straws, by 3 July 2021. Restrictions on the marketing of single-use plastic products are already in place in some countries: straws have been banned in Scotland since 2018, cotton buds in Italy since 2019, and single-use tableware in France since 2020.

Figure 8: Responses to the question “which products?” among French households that say they buy in bulk (Source: Nielsen Panel Views, 2018)



Bulk purchasing and the challenge of hygiene in times of pandemic

Physical outlets have to adapt to the new conditions brought about by the Covid-19 pandemic, especially regarding bulk purchases. The trend to reduce packaging in favour of bulk, which had emerged before the Covid-19 crisis, appears to be continuing. However, bulk sales have declined as this method of distribution does not reassure

consumers who are more careful about hygiene measures in times of pandemic. The bulk market must therefore adapt to this new situation and rethink its distribution method in shops, in order to meet current health and consumer safety needs.

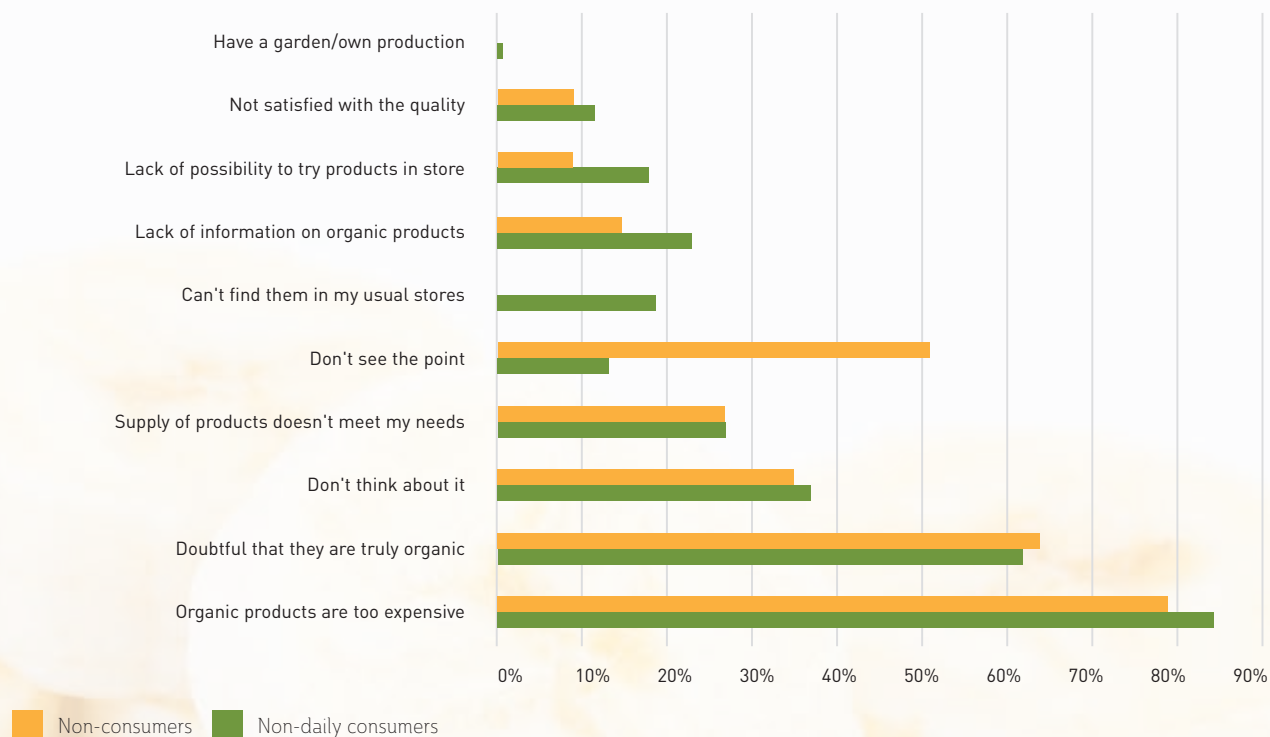


Organic – good, but still expensive...

In the minds of consumers, price is one of the barriers to volume growth in the organic sector. Germany and France are the two most important European markets, accounting for more than 10 billion euros and 9 billion euros, respectively. However, 41% of German consumers¹⁴ and 84% of French consumers¹⁵ consider price to be the main obstacle to their consumption of organic products. This barrier was confirmed at EU level by a study¹⁶ conducted in 2019. However, the current consumer trend seems to show that consumers are willing to spend more on healthy products as an alternative to conventional products.

In addition to the central issue of price, Figure 9 reflects a certain mistrust of consumers with regard to organic products and their veracity: there is a real demand from consumers regarding transparency. Consumers increasingly want guarantees about the authenticity of products and their organic provenance. In order to meet this demand, actors in the sector have introduced several labels, in addition to the EU organic logo (leaf of stars on a green background) and national logos, such as Demeter International, Ecocert, Nature & Progrès, Bioland, and NatureLand Organics.

Figure 9: Barriers to organic consumption in France in 2018 (Source: Statista)



Initially considered by many as a passing fad, organic is now becoming a real consumer attitude. It is a basic market trend that more and more producers are relying on. This new way of life is mainly supported by the younger generations, despite the budgetary constraints on the products.

Although they do not have the greatest purchasing power among consumers, 27% of 18–24-year-olds intend to increase their purchases of organic products. This group of new consumers offers interesting development opportunities for the organic market.

¹⁴ Bundesministerin für Ernährung und Landwirtschaft – Okobarometer 2019 (2020).

¹⁵ Agence Bio - Baromètre de consommation et de perception des produits biologiques en France (2019).

¹⁶ BEUC – One bite at a time: consumers and the transition to sustainable food (2020).

2.3. Ready-to-eat and fresh cut

While European consumers are buying more and more fruit and vegetables, there is also a strong demand for ready-to-eat products – those that are fresh, but sufficiently processed so they can be eaten immediately after purchase, without a need for further preparation.

The fruit and vegetable industry is working to make the offer more attractive by proposing many fruits and vegetables as “fresh cut”, and in the form of gourmet mixes.



Photo 2. Fruit offered freshly cut in a Cora supermarket, which is aiming to extend this service to all its shops

Fresh cut is a resounding success in Europe. According to the Nielsen panel, annual growth rates are in double digits and, depending on the year, exceed 30%¹⁷. These products are part of the

so-called “fourth range”: already washed, cut and sliced, they are ready to be eaten. More and more consumers are attracted by these fresh, healthy and portable products, which are adapted to a mobile society and to the short time spent preparing meals. Fresh cut is a serious alternative to the sandwich, without necessarily being more expensive.

This philosophy of “eating well on the go” is growing in popularity. In Italy, the fresh-cut market has grown by 376% over the decade and has increased almost fivefold. More than three-quarters of Italian families eat prepared fruit in a country where cooking is a symbol. The fresh-cut trend is also growing significantly in Spain. The younger generation of millennials, especially in Germany, are consuming more pre-cut fresh produce.

In general, bagged salads are the best-selling fresh cut, although sales have stagnated in recent years. Conversely, sales of fruit and vegetables are increasing strongly. More than 40% of French people buy bagged salad on a regular basis, compared to only 15% 20 years ago. In the UK market, fresh-cut products are spearheading the fruit and vegetable market, particularly prepared salads. The Florette brand has perfectly understood the new needs of consumers by marketing “Florette Crispy”, the best-selling salad in England.

The fresh-cut market seems favourable for all players in the supply chain: it is a good way for producers and distributors to diversify their offer. The margins recorded are also higher than for the sale of fresh products.

Kantar estimates the fresh-cut market in France at 1.3% of the volume of fresh fruit and vegetables purchased, but 4% in value. Many producers have therefore invested massively in this new sector, which they estimate will account for a third of the fresh fruit and vegetable department in the coming decade. Compared with ten years ago, now there are few hypermarkets without a dedicated counter, as this is a good way of increasing the attractiveness of the fruit and vegetable section and providing added value in terms of customer services. “Vegetable butchers” counters have been developed in supermarkets in the USA and UK. Harrods foodhall has popularised this practice with its “vegetable butcher”, a concept that offers the customer a truly personalised service, as a wide range of fruit and vegetables are cut, chopped, julienned or diced with skill and dexterity by a “butcher”. In France, the Auchan chain has invested in more than 20 such kiosks, the cost of which amounts to more than 14,000 euros. Fresh fruit and cut and seasoned vegetable bars are also becoming more common in German Rewe and Real shops.

Finally, in order to meet the requirements of fresh cut, producers are looking for products that are best suited to this type of consumption. Innovation is the order of the day, for example the genetic work being done to develop seedless watermelons. However, the sector is careful not to adopt the image of an overly standardised industrial production that would dissuade consumers seeking an artisanal food experience.

¹⁷ Echoes – Fresh cuts set the fruit and vegetable aisle alight (2018).

2.4. Healthy snacking

Like fresh cut, fresh or processed fruit and vegetables are increasingly being marketed in practical form as snacks. Nibbled on during the day, they appear as a healthy alternative to sandwiches and crisps, particularly for active people who want to keep their figure. These products are especially popular at lunchtime, when consumers do not always have the time or inclination to cook dishes made from whole fruit and vegetables. Fast-food restaurants are seeking to meet this demand by offering snacking fruit on their menus.

In partnership with Florette, McDonald's France offers a number of fresh fruits on its menus, such as pineapple, apple, pear, orange, nectarine, melon and mango. Exotic fruits are making inroads into the snack market, both in fresh form and dried in cereal bars or muesli.



Photo 3. Tyrrells and Delhaize own-label vegetable crisps

In recent years the offer has grown, with the development of salty snacks considered to be healthier, notably with the rise of alternatives to crisps made from vegetables (carrot, parsnip, beetroot, turnip and sweet potato). In addition to specialist crisp producers such as Bret's and Tyrrells, European retail brands such as Casino, Delhaize and Lidl have also developed their own vegetable crisps.

Finally, there is also the development of a whole range of yoghurt drinks, based on milk produced in the country of marketing and real fruit, that combine taste and authenticity, such as those of French brand Michel et Augustin and German brand Ehrmann. These brands are increasingly offering products with exotic flavours, such as mango-passion fruit, peach-passion fruit, or Greek yoghurt flavoured with coconut.

3. The search for the exotic

Younger generations are distinguished partly by their diet, seen in the organic revolution and the vegan habits of young people. An increase in consumption of exotic products is part of this trend to discover new flavours and foods that are still unknown in Europe.

Younger consumers tend to be quite adventurous in their consumption patterns, not hesitating to change their habits in response to promotions by supermarkets. Their typical basket of goods is more changeable than that of older generations, which presents great opportunities for exporters of exotic products that are still not widely traded in the EU. Because of this, and because of their dietary properties, exotic fruits such as papaya, pomegranate and pitahaya have a future on the European market.

At the same time, consumption of the most popular exotic fruits, such as avocados, continues to increase in northern and western Europe: it rose by 19% in the 2018–19 season compared to the previous season, and by 111% compared to the 2013–14 season. The countries that consume the most avocados are, in order of importance, Denmark (2.69 kg per capita in 2018–19), Norway (2.53 kg), the Netherlands (2.32 kg), France (2.16 kg) and Sweden (2.07 kg). In terms of volume, France sells the most avocados (145,000 tonnes in 2018–19), followed by the UK (105,633 tonnes), Germany (82,327 tonnes) and Spain (72,122 tonnes). The avocado market is booming in Italy, with a growth of +29% for 2018–19 compared to the previous season. In addition to avocado, tamarind, jackfruit and lychee are experiencing the strongest growth in demand in Europe. The most important import markets for lychee, passion fruit, pitahaya and carambola are Germany, France and the UK. French households consume an average of 18.4 kg of exotic fruits per year.

Exotic processed fruit and vegetables are also sought after: for example coconut water, which has a very good image on the European market, and exotic fruit juices.

Although there is a rise in consumption of exotic fruits such as avocados, it is also appropriate to note a recent phenomenon in Europe, particularly among younger consumers in northern Europe, of being “ashamed to consume products imported by air”, derived from the phenomenon of being ashamed to fly (from the Swedish neologism “flygskam”). This could constitute at least a relative brake, or even a counter-current, to the development of exotic products on the European market.

4. The development of alternative diets

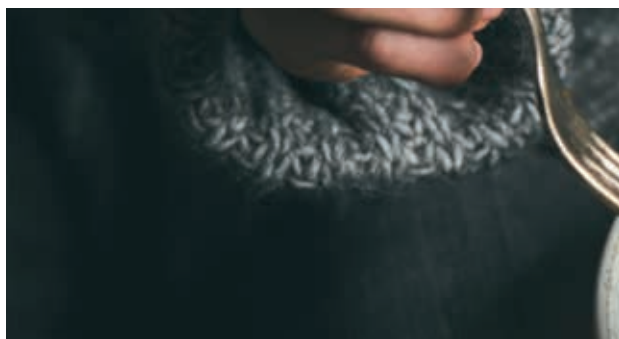
A vegetarian diet is no longer restricted to a minority of consumers, but is increasingly spreading to the whole of society. Young people in particular are seeking to distinguish themselves from their elders by defining their own consumption patterns. These new habits, already identified in the first edition of this COLEACP study in 2017, appear to be major trends, not just passing fads.

According to a recent study¹⁸, 59.2% of 11,000 European consumers surveyed consider that the environmental impact of their food determines their consumption. As a result, 40% said they had reduced their consumption of red meat or stopped altogether, and 20% were considering changing their diet. However, the EU Agricultural Outlook Report 2018-2030¹⁹ estimates that the average annual meat consumption per European will decrease only slightly by 2030, reaching 68.9 kg from 69.3 kg in 2018.

The decrease in meat consumption is the result of the increase in the number of flexitarians, vegetarians and vegans. In 2019, 6–10% of Europeans declared themselves to be **vegetarians or vegans**.²⁰ National breakthroughs are numerous: In Germany, the number of vegetarians increased from 7.4 million in 2009 to 9.3 million, 9% of the population, in 2017. In 2019, Proveg estimated that up to 2% of these vegetarian consumers do not consume any animal products. This shift in diet is also taking place in Eastern European countries: 8% of the Polish population were vegetarian in 2018, and 87.5% of them were vegan. In Britain, the number of over-25s who declared themselves vegetarians was 150,000 in 2006, compared to 540,000 10 years later. In addition, more and more people are adopting a flexitarian diet, reducing their meat consumption by alternating between a vegetarian and omnivorous diet. In 2018, one in two Europeans declared that they were reducing their

meat consumption²¹. In 2017, 30% of French people were flexitarians²².

These new dietary habits suggest significant development potential in the market for meat alternatives, particularly plant proteins suitable for vegetarian and vegan diets. In France, the vegetarian and vegan market generated a turnover of 380 million euros in 2018, an increase of 24% compared to 2017²³. Growth is even more significant in Germany, with products adapted to a vegetarian diet generating a profit of 960 million between 2017 and 2018, 30% growth compared to the previous year²⁴. Discount chains are the main players in this new market and have expanded their range by 40%, increasing their annual profit on vegetarian protein sales by 30%. The more traditional German retailers have also expanded their range by 17%, increasing their profit from these products by 23%. The research institute Xerfi expects the French market to grow by an average of 17% per year for the



¹⁸ BEUC (2020), op. cit.

¹⁹ European Commission – EU agricultural outlook for markets and income 2018–2030 (2018).

²⁰ European Data Journalism Network – An increasingly vegetarian Europe (2019).

²¹ Mintel – 2018 Summer Food and Drink Trends (2018).

²² Statista – Share of people following a flexitarian diet in Europe 2018, by country (2020).

²³ Ouest France – Le marché végétarien et végan a augmenté de 24 % en 2018 (2019).

²⁴ Lebensmittel Zeitung – Marktentwicklung: Rasantes Wachstum (2018).

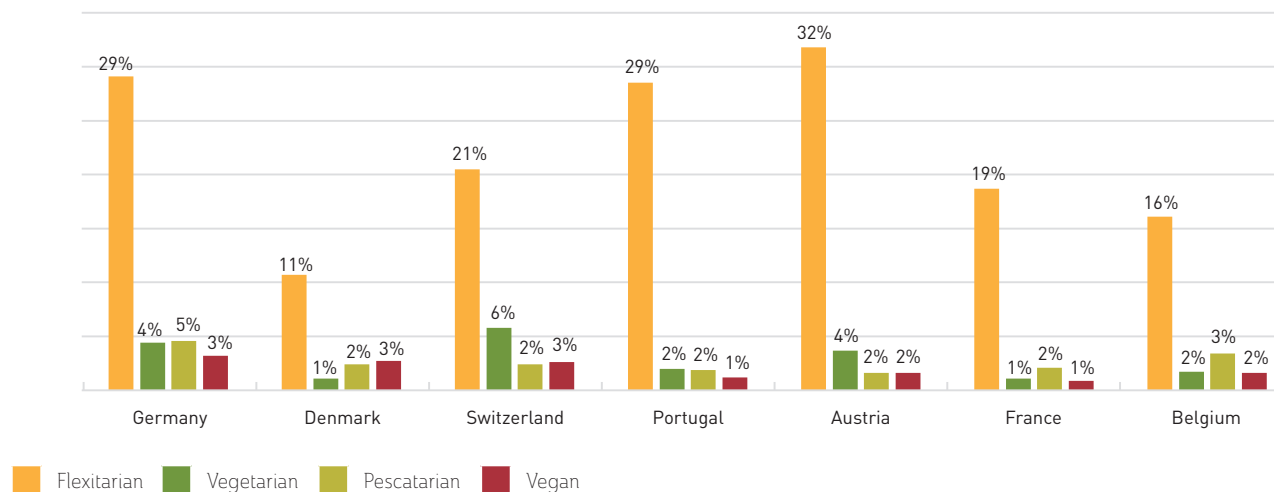
period 2019–21, with sales exceeding 600 million euros by 2021. The German market, however, seems to continue its global dominance: according to Mintel, in 2018 Germany was exporting 15% of vegan products to the rest of the world. German production of vegetarian alternatives to meat products increased by 37% in the first quarter of 2020 compared to the first quarter of 2019, reaching a value of 85.1 million euros. At the European level, the value of the plant protein market exceeded 1,450 million euros in 2019. Its compound annual growth rate (CAGR) is estimated at 7.3% for the period between 2020 and 2025, with the largest national markets being the UK, Germany, France and Italy.

This basic trend is impacting on consumers who are reducing the relative proportion of meat in their diets, indicating great potential for the development for fruit and vegetables.

The vegetarian diet is no longer limited to a minority of consumers but is increasingly spreading to the whole of society.

The industry has responded to these new needs. One example is Nestlé’s Garden Gourmet range of plant-based products. The so-called ‘classic’ products in the range include meat substitutes such as burgers, minced meat and sausages. The Belgian population increased its consumption of

Figure 10: Share of 2600 people surveyed by Veganz Group identifying with different nutritional groups within seven selected European countries in 2020. (Source: Veganz Group AG)



vegetarian products by 67% between 2013 and 2019. Since 2019, Nestlé has also been supplying vegan steaks for the new Big Vegan burger offered by McDonald’s. The fast-food leader is continuing to diversify its meat-free product range, including vegetarian burgers and wraps, depending on the country.

These new diets reflect a global desire on the part of the population to reduce consumption of meat for economic reasons (meat is expensive), and above all ethical reasons (respect for animals, consideration of the carbon footprint of meat). Even though the aim is to find substitutes for meat rather than to eat more fruit and vegetables, it appears that these can also be presented as alternatives in their own right: there is indeed an **opportunity to be seized by the entire horticultural sector**.

5. And tomorrow?

Over the past 30 years, the industrialisation of food in Europe has been marked by media coverage of health, phytosanitary and ethical crises and scandals. Today, questions are being asked about the impacts of consuming each product: remuneration of producers, environmental pollution, waste of water, respect for animal rights, preservation of ecosystems, use of pesticides, presence of GMOs or endocrine disruptors, etc.

European consumers continue to look for official labels that guarantee the quality and sustainability of what they buy. The market has responded with public and private food safety standards, and increasingly with standards that certify production that respects the environment and the people who grow and consume its products.

In an increasingly “VUCA” world²⁵, the desire for reassurance will remain a fundamental need of consumers. All the more so in a context where food is considered a source of well-being and health; and for fresh products such as fresh fruit and vegetables, which are in direct contact with nature. The success of organic farming can only grow and pull the whole sector upwards in terms of sustainability.

Through the volume effect, economies of scale should lead to a reduction in the price of organic food, which will make it more attractive. In this context, organic or vegetarian could become new consumer standards in the years to come.

In parallel with this desire to move towards healthy and sustainable natural food, consumers – especially European consumers – and all actors in the value chains will be increasingly connected thanks to recent technological developments such as blockchain. This also suggests major changes in purchasing habits and behaviour.

Fruit and vegetables will remain fashionable, because they are healthy, convenient, diverse, and the basis of a diet that is moving towards less meat consumption.

Fresh cut and snacking will also have a future if they manage to be sustainable, especially in terms of packaging.

For imported products – especially fruit and vegetables – detailed and objective information on the sustainability of production and marketing will be essential and unavoidable in order to seize the growing opportunities for development, especially in a world where locavorism and short-circuit supply chains will continue to be promoted easily because of the simplicity of the marketing message (eating locally is better for the environment).



Photo 4. ©Tatjana Balzer - stock.adobe.com

²⁵ Volatile, uncertain, complex and ambiguous (VUCA): a concept created by the US military after the fall of the Berlin Wall to define the world, and increasingly used to characterise the context in which our societies and economies are evolving.





IV

DISTRIBUTION AND MARKETING OF FRUIT AND VEGETABLES IN THE EU

Despite the continuing dominance of supermarkets in sales of fruit and vegetables, distribution is changing in Europe as well as elsewhere. Fruit and vegetables are benefiting, firstly because the supermarkets are taking more care of the display, which has become a vehicle to demonstrate the freshness of their products and an attraction for consumers. At the same time, the technological revolution is profoundly transforming the retail sector, with companies like Amazon revolutionising the way people do their shopping.

All European retailers have integrated online commerce, either in partnership with a major digital retailer or directly through a click-and-collect system. The phenomenon has accelerated during the period of Covid-19 in 2020.

1. Increasingly digitalised value chains

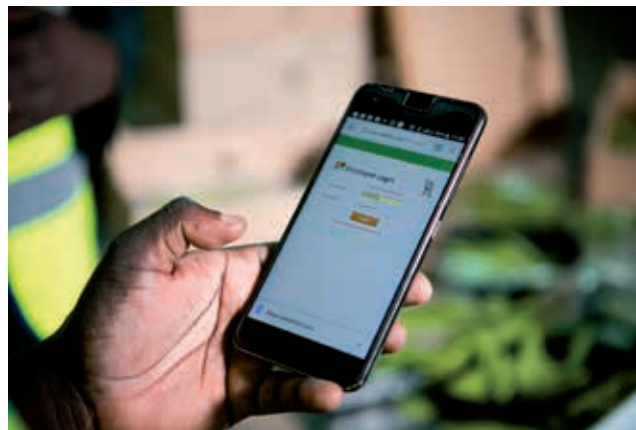
The use of new technologies throughout the value chain poses a challenge for the agricultural world. This will become increasingly important in the coming years, in terms of both production techniques and the entire supply chain, right up to the consumers, who will also use technology to buy and evaluate products.

In terms of production, the development of new technologies allows for improved control of product quality as well as the productivity of agricultural land. Access to **databases** allows, for example, fine-tuning of nutrient and water inputs, or real-time knowledge of weather and market conditions, enabling informed decision-making. Armed with these new capabilities, producers are better equipped to deal with the unpredictability of various phenomena (weather, price collapse on raw materials markets, etc.).

Supply chains will be particularly impacted by the gradual introduction of new technologies in agriculture, and **blockchain** is part of this ongoing revolution. Essentially a shared and traceable digital ledger, it facilitates record-keeping, and thus ensures the transparency of product supply chains and responds to its stakeholders' (especially consumers') need for confidence. This opportunity

to improve efficiency and logistics within the agricultural sector is leading to increasing use of blockchain in production. The MangoBlockchain project, developed by COLEACP and the Société Internationale d'Importation (SIIM) in partnership with the Société de Diverses Prestations et d'Exportation (SODIPEX SARL) and Block0, is an example for West African mangoes.

Blockchain is leading to "uberisation" of the market and is speeding up transactions, particularly through the creation of **smart contracts**. These are computer protocols that facilitate, verify and execute the negotiation or execution of a contract,



in some cases even making a contract superfluous. This digitalisation of contractual relations ensures that producers are paid more quickly and improves access to finance. In addition, blockchain tends to reduce the number of intermediaries in the supply chain and should therefore contribute to lowering the final price of products, to the benefit of consumers.

New technologies also allow consumers to measure the **environmental and social impacts** of their purchases. The digital revolution is also bringing more transparency to consumers on the traceability of their purchases.

New applications that allow assessment of the composition of products and their impact on health have also been very successful in recent years. For example, the mobile app Yuka, created in 2017, has more than 15 million users, mainly in France but also in Belgium, Spain, Switzerland, Luxembourg and the UK. Another food and cosmetics scanning application, Codecheck, advised more than 3.5 million European consumers in 2019. In this context, in an approach geared towards the export of French products, Foodgates, which appeared in 2019, presents itself as a pioneer of blockchain in the food industry. This platform connects food professionals and allows perfect traceability

of French products to China, thus creating new opportunities for the industry in a country traditionally reluctant to import food goods.

The use of new technologies in the retail sector seems to have no limits, as shown by agreements between Google and national retailers that allow customers to order their shopping on the retailers' websites using the Google Home voice assistant. In 2019, Carrefour in France and Tesco in the UK introduced this new form of integrated shopping in Europe. According to experts, the market for ordering from a voice assistant has significant and rapid growth potential. While it was worth \$2 billion in 2019, OC&C experts estimate that it will reach \$40 billion by 2022, while Juniper sees growth to \$80 billion by 2023²⁶.

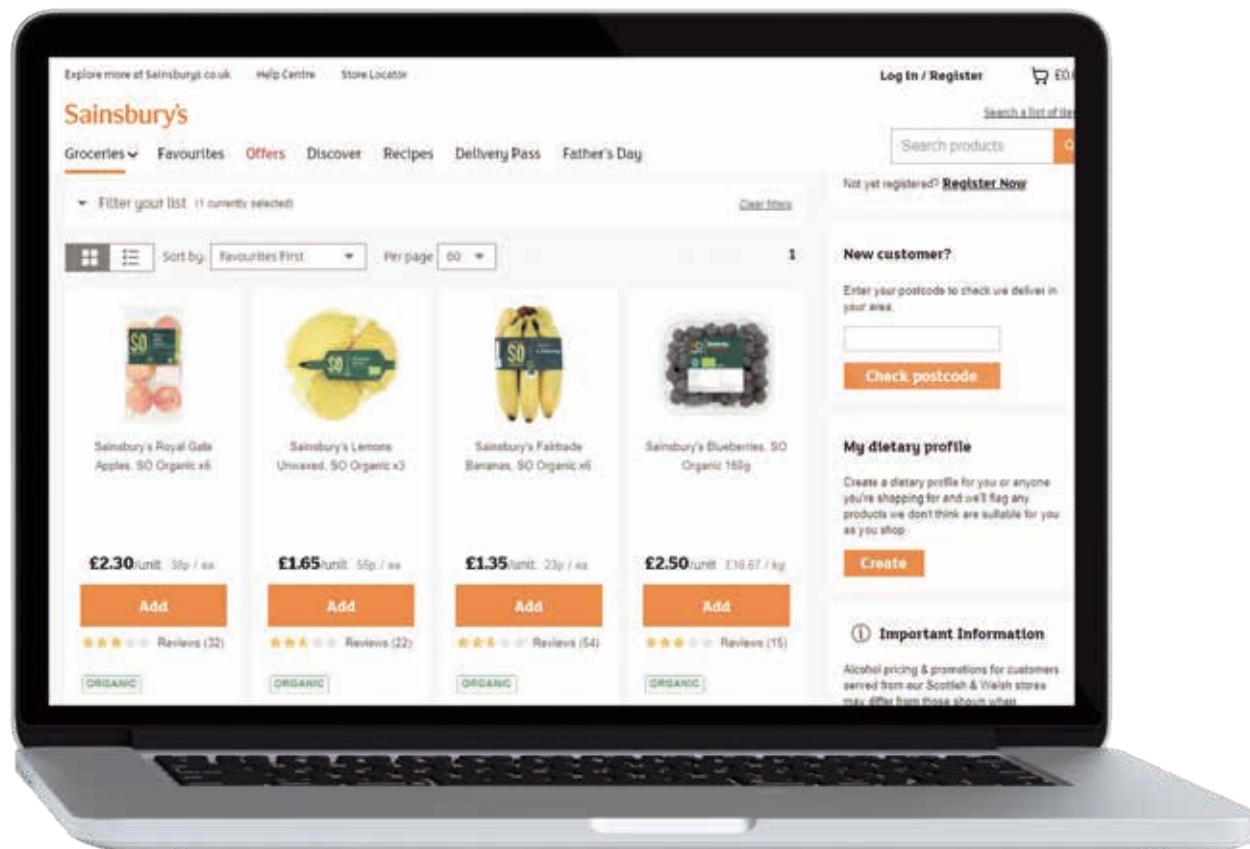
In 2020, the Covid-19 pandemic accelerated digitalisation of the economy, and particularly of the online food trade. Development forecasts will be rapidly exceeded. These are all opportunities for professionals, particularly in the fruit and vegetable sector, who are able to join this future trend.

2. Online sales continue to grow

Intuitively, we might think that online shopping is unsuitable for fresh produce, because consumers traditionally like to see, touch and choose their own, and because of the risk that they will be damaged during delivery by a third party. But the European trend is upwards, mainly in France and the UK.

There are two forms of online shopping: drive-through and home delivery. While the first option is increasingly sought after by consumers, the second still has difficulty convincing them because, unlike

the first, it does not always offer produce from the nearest shops. The situation in France illustrates this perfectly: the French use drive-through four times more than home delivery.



²⁶ Harvard Business Review – How voice assistants could change the way we shop (2019).

This boom in online fresh food shopping is the result of investments made by the giant in the field, Amazon. Its subsidiary Amazon Fresh entered Europe in 2016 by entering the UK market. It is a service of Amazon's Prime subscription. For an additional £6.99 per month, subscribers can get a month's delivery on orders of £40 or more. The service's success is based on low prices, a wide

selection of products and fast delivery. The service was launched in Germany in 2017 and is expected to enter France soon.

The rapid growth of Amazon Fresh is likely to completely reshuffle the cards in the fruit and vegetable retail sector. The range of services on offer is constantly expanding, also offering home-delivered frozen products.



Photo 6.

Taste what's in season

[See more >](#)

Stone fruits are back in town



Organic Red Cherries, 1 lb.
★★★★☆ 1,094



Dark Red Cherries, 1 lb.
★★★★☆ 6,021



Organic Yellow Flesh Peach
★★★★☆ 1,777



White Flesh Peach
★★★★☆ 555



Apricot
★★★★☆ 1,127



Featured fruit

[See more >](#)



Dole Bananas, 2 lb Bag
★★★★☆ 37,312



Red Grapefruit
★★★★☆ 2,955



Honeydew
★★★★☆ 2,281



Fuji Apple
★★★★☆ 2,890



Organic Pineapple
★★★★☆ 2,320



Gala Apple
★★★★☆ 2,781



Organic Navel Orange
★★★★☆ 1,602



Photo 5. Product ranges on AmazonFresh

The **organic** sector is particularly affected by this e-commerce boom: the ranges offered in local shops are less extensive than those on the internet, which encourages consumers to order more online. The partnership between Amazon Prime Now and a chain of French organic shops, Naturalia, illustrates this recent boom: Parisians who subscribe to this service receive high-quality fresh fruit and vegetables within two hours. Another player in online organic shopping,

Belgian start-up Kazidomi, offers organic products up to 50% cheaper than usual to its subscribers and delivers to 12 EU countries, as well as Switzerland and the UK. The trend towards online organic trade is very strong in Germany, the largest European market for organic products. Most sellers are only present online, but leading producers of organic products, such as Rapunzel and Gepa, also have their own online shops.

Going beyond organic products, and to meet demand from consumers who no longer spend as much time shopping as they used to, every pillar of the retail sector is seeking to develop an online offer. Among the traditional European supermarket chains, Sainsbury's (UK) has the largest share of online sales, accounting for 20% of total sales in 2019. This is followed by E. Leclerc and ASDA (Walmart) with 8% of online sales each, followed by Tesco and Carrefour

Covid-19 and the digitalisation of purchasing

Travel restrictions in 2020 accelerated the digitalisation of consumer sales and shopping patterns. This development has been rapid: in June 2020, almost one in three (32%) German food retailers had a complete digital offer, compared to 14% in 2019.

In the food trade, the Covid-19 crisis is catalysing digitalisation and making it a strategic priority. However, the trend is taking hold more slowly on the consumer side. The share of consumer spending on fruit and vegetables online has risen from 1 to 1.1%. This is very low compared to growth in other retail segments (e.g. street shops, greengrocers, direct sales from the producer)

Figure 11: Digitalisation of food retail in Germany between 2019 and 2020 (Source: ReAct)

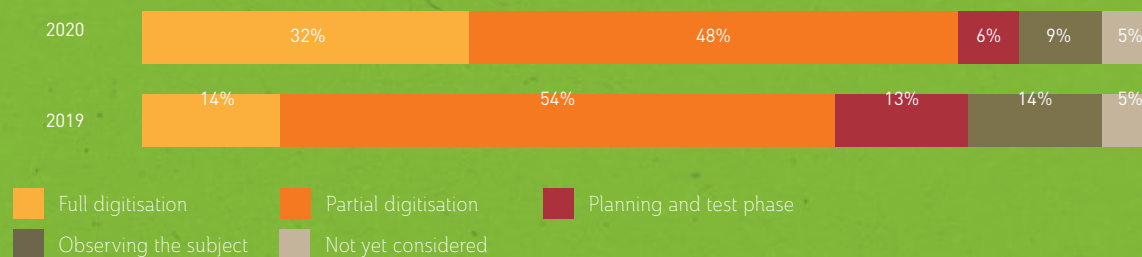
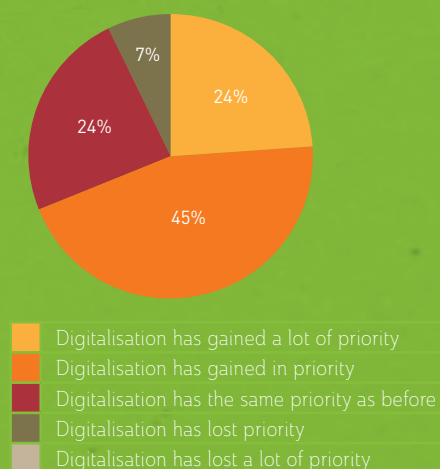


Figure 12: Impact of Covid-19 on the importance of digitalisation in food retail in Germany in 2020 compared to 2019 (Source: ReAct)



with 7% and 4%, respectively²⁷. According to IGD, the largest food e-markets are in the UK, France, Germany and Spain.

3. Revitalising the fruit and vegetable sections in shops

With the rise of online shopping and the development of specialist fresh produce shops (including fruit and vegetables) such as Grand Frais, the major retailers have had to adapt strategically to continue to attract customers to the fruit and vegetable section. Since 2018, the discounters Lidl and Aldi have dominated the market for food retailers in Europe: the Schwartz Group, owner of Lidl and Kaufland, is Europe's largest food retailer. Aldi is in second place after overtaking Carrefour in 2018. The dominance of the German discounters was confirmed in 2019, with the Schwarz Group's sales reaching 120 billion euros and Aldi's 66 billion euros, just ahead of Carrefour and Tesco's 65 billion euros and 61 billion euros, respectively²⁸.

Hypermarkets seek to build customer loyalty by making their departments more attractive. The quality of the fruit and vegetable section plays a major role in attracting customers, making this section the nerve centre of the entire shop. Efforts are made in all supermarkets to present the best fruit.

However, large supermarkets are also trying to adapt to growing consumer awareness of the environmental impact of their consumption. So they are also selling aesthetically imperfect fruit and vegetables in an effort to reduce waste. In France,



Photo 7. Fruit and vegetable section in a Grand Frais shop.

Intermarché was the first to introduce "ugly" fruit and vegetables to its shelves in 2014. In 2016, the "*Gueules cassées*" initiative ("Ugly Mugs" in the UK), based on the same principle, was introduced in various chains, including Carrefour, E. Leclerc, Monoprix and Franprix. The trend has also been developed in the UK by the retailer Waitrose, in Germany by Kaufland, and in Portugal by the cooperative Fruta Feia ("ugly fruit" in Portuguese).²⁹

Supermarkets are also increasingly playing the 'health' card in their marketing to attract new consumers. The idea is to show that the stores are more interested in the health of their customers than in their wallets. Fruit and vegetables play a big role in promoting the "healthy" image of the shop.

We are witnessing a real revitalisation of fruit and vegetable departments, with hypermarkets playing the sensory experience card that the customer cannot experience when ordering online from Amazon.



Photo 8. Herb "mini greenhouse" in an Albert Heijn shop.

In Europe, several recent examples illustrate this phenomenon of specialisation and upgrading of fresh produce, particularly fruit and vegetables. In France, Grand Frais is a typical example of a shop specialising in the sale of fresh fruit and vegetables. The shop model is mainly based on the guarantee of high product quality, with an emphasis on presentation and display. The customer satisfaction rate is very high (97%), and Grand Frais ranks as the number one favourite retailer among the French in 2018. In 2018, the brand's sales soared by 13% according to Kantar Worldpanel, and 16% of French people said they had visited its stores in 2019. The brand attracts primarily young households, and families with young children, with higher than average incomes.

While 56% of French people say they distrust large-scale distribution, the new fresh food shops are playing on their fashionable image and the transparency of their products to attract an ever-growing number of customers. According to

²⁷ Forbes – Who are the top online grocery shoppers in Europe? (2019).

²⁸ NHH Norwegian School of Economics – Aldi and Lidl take the lead (2020).

²⁹ A fresh start: A special report about the long-term effects of the Covid-19 pandemic on the international fresh produce business (2021)

specialist food retail magazine *Linéaires*, the model generates an average profitability twice that of Carrefour, Casino or Auchan.

In the **Netherlands**, Albert Heijn is promoting sustainability by claiming to have opened the most sustainable shop in Europe in Purmerend, north of Amsterdam. The shop is energy self-sufficient due to solar panels, and even has access to mini-greenhouses where customers can pick their own herbs.

In **Germany**, where distribution is dominated by discount retailers, Aldi has managed to establish itself by offering a wide range of fruit and vegetables. It is increasingly moving away from the low-end image of hard discounters and gradually moving upmarket, following the example of its rival Lidl. This move upmarket can be seen in the various shops of both brands in Europe.

In the **UK**, retailing is a highly concentrated market around four major players, known as the "Big Four": Tesco, Sainsbury's, Asda and Morrisons. Hypermarkets and superstores account for 40% of retail, and small supermarkets and convenience stores for around 20% each. The rest is covered by discounters and online sales. This ultra-competitive environment in the British retail sector, particularly in terms of prices, has led to major restructuring among the Big Four in recent years. In 2015, Tesco posted a record loss of 8 billion euros. Speculation about the outcome of Brexit has also kept up pressure on prices with the depreciation of sterling. The trend towards revitalisation of fruit and vegetables is less marked in the UK than in other European countries, and mainly concerns

"ready-to-eat" products which are popular with the British.

These recent changes in the strategies of traditionally dominant brands in the European food market can also be found at **Carrefour**: with a loss of momentum in the European market, the brand is seeking to attract consumers again, particularly with its fresh and organic product offer. Carrefour introduced a new shopping concept in Belgium in 2016: Carrefour Easy Markets offer fresh local products on a small or medium-sized sales area (400–800 m²). In France, the brand has developed new shops with a "freshness guarantee" concept: if the consumer is not satisfied with the freshness of the fruit and vegetables, the brand undertakes to reimburse them. Carrefour also introduced Europe's first food blockchain in 2018, which allows consumers to discover all the traceability information about a product by scanning a QR code. This technology initially focused on the chain of whole chickens sold under the brand name of the company, but should be extended to other products. The aim is to reassure customers about the origin of the products and to develop Carrefour's ethical and environmentally friendly image.

Another aspect of the new strategies deployed by the traditional super- and/or hypermarket chains is **organic** products. Carrefour is considered the leader among hypermarkets in organic products: one of every two products sold in France is sold by the chain. The company aims to triple its sales in the organic sector from \$1.3 billion to \$5 billion by 2022, and to become a leader in the transformation of food. Beyond being an attractive asset, organic

products are a decisive stake in the competition between retailers. Auchan in France is part of this trend, and is developing a whole organic range. In addition, the chain is seeking to revitalise its fruit and vegetable departments by developing a partnership with the concept of the "*La Fraîcherie*" stand. These outlets focus on the authenticity of products by cutting and preparing them in front of customers, to recall the atmosphere of a real market. The aim is to offer the customer freshness and good taste without any preservatives.

The overall trend in European retailing is to revitalise shops. The fruit and vegetable department is becoming a vital issue for retailers: consumers will often judge the whole brand on the quality of its fresh produce. By making an effort to present fresh, tasty, easy-to-eat and environmentally friendly produce, retailers are responding to current customer needs.

The European market thus still holds interesting potential for fruit and vegetables – but it will require adaptation to changing consumption and distribution patterns.



Photo 9. "La Fraîcherie" stand of the Auchan brand

4. Packaging, a major issue in marketing strategies

4.1. Innovation at the heart of the marketing mix

Innovative packaging is becoming a central issue for players in the global fruit and vegetable market, as more consumers are looking for more environmentally friendly packaging solutions that contrast with the archaic use of plastic. Lucas Garletti, CEO of McGarlet, a major Italian fruit importer, talks about this major challenge: *“Plastic was conceived as a cheap, clean and comfortable material, but over the years it has led to a lack of consumer education on recycling and a global delay in building a true virtuous cycle.”* With this in mind, in 2020 McGarlet introduced Biopack packaging made of cardboard from Forest Stewardship Council (FSC)-certified wood fibre, plastic-free film and fully compostable labels. In addition to the environmental impact, the aesthetics of packaging is becoming increasingly important in making very effective visual marketing statements.



Photo 10. McGarlet's biopack

For example, three of the ten nominees for the 2020 Fruit Logistica Innovation Award offered **alternatives to conventional plastic packaging**. Among these, one from Polish industrial packaging producer SILBO is compostable and environmentally friendly, as it does not contain any solvents and the texts on it are written using water-based ink technology.

SoFruMiniPak, a new packaging concept from SoFruPak, is 100% biodegradable, made of natural raw materials and ventilated to ensure the constant freshness of the fruit it contains.

Another innovation, from Italian company Kuku International Packaging, is an alternative to plastic using 100% biodegradable cotton. The KK Bag takes the form of a mesh bag, and offers solid packaging for transporting potatoes, onions, nuts, etc.

Another competitor for the Innovation Award proposed not packaging, but an alternative **labelling process**. This process, developed by British company Sinclair, disintegrates in 12 weeks and is biodegradable in a maximum of 180 days,



Photo 11. Biodegradable and compostable packaging presented by SILBO

and is recognised as complying with European standards (EN 14332) for compostable and biodegradable packaging.

Also along these lines, French company Capexo has developed technology for printing exotic fruit and vegetables with food-grade ink, making packaging unnecessary. This bio-ink solution is an important **alternative to recent laser marking techniques**. Unlike laser marking – which also eliminates the need for plastic packaging, but is detrimental to the taste and nutritional qualities



Photo 13. The KK Bag from Kuku International Packaging, a cotton-based mesh bag



Photo 12. SoFruMiniPak, 100% biodegradable packaging from SoFruPak

of the products to which it is applied – organic ink does not degrade the food.

In general, packaging was an important element at Fruit Logistica 2020. For example, the winner of the 2020 Innovation Award, Syngenta Seeds, presented a new variety of purple tomato, called YOOM, packaged in a carton made from raw materials from sustainably managed forests to meet consumer demand for sustainability.

The Pink Lady brand also introduced three new packaging solutions: a 100% FSC-certified cardboard tray, a tray sealed with aluminium foil made from fully compostable materials, and a compostable flow pack.

The new packaging has since been rolled out to all retail shops where this apple variety is sold.

4.2. Prospective trends in fresh fruit and vegetable packaging

Perhaps exceeding consumer expectations, this race to find alternative packaging will probably relegate all plastic packaging to the “old world” in the near future. It is therefore **imperative for producers to take part in this shift** in order to maintain their market share, or to penetrate the European market. Nevertheless, at Fruit Logistica 2020 a gap was perceived between the need to move towards a new packaging model, and the apparent inertia of many players. The innovations mentioned in this study are driven by some large players, but many small and medium-sized producers continue to use traditional packaging methods. If they do not change in the next few years, they risk being shut out of the European market.

In addition, European regulations are increasingly restrictive regarding the use of plastics as food packaging, especially for fruit and vegetables. In March 2019, the EU adopted the Single-use Plastics Directive, which aims to progressively strengthen the design and labelling requirements for single-use plastic packaging, including food packaging, and to drastically reduce its use.

In addition to the new EU rules, Member States have their own restrictions on the use of plastic food packaging. Similar to the ban in Austria since 2017, the city of Brussels banned the use of plastic bags for fruit and vegetables in March 2020. In France, the Circular Economy Law of February 2020 is placing a ban on single-use plastic packaging for fruit and vegetables if the total weight is less than 1.5 kg, starting in 2021.



Photo 14. Sinclair EcoLabel®



Photo 15. Food ink process used on exotic fruits, developed by Capexo and unveiled at Fruit Logistica 2020



Photo 16. Syngenta Seeds' YOOM tomato packaging, winner of the Fruit Logistica Innovation Award 2020

5. And tomorrow?

According to some experts, the shopping centres we know will disappear and be replaced by digital giants. Customers' needs for convenience and speed no longer correspond to the current organisation of hypermarkets. The rise of the drive-through and home delivery offer proof of this. Across the Atlantic, online operators are already revolutionising the organisation of the market from top to bottom. Will out-of-town hypermarkets, which have contributed to the disappearance of town centre shops, suffer a similar fate? This scenario is more than likely to happen, and is forcing the giants of the sector to rethink their strategy.

This strategic rethinking is also necessary in view of the lower profitability of e-commerce: by ordering from home, consumers are much less attracted by flagship promotions and therefore less likely to make impulse purchases.

Amazon is positioning itself as the future of the supermarket. The strategy being pursued by the digital giant is worrying traditional retailers, as Amazon expands on all fronts and along the entire value chain. In 2017, for example, the brand bought the American organic supermarket chain Whole Foods for US\$13.7 billion, the biggest acquisition in its history. This shop chain has almost 500 stores across the USA. The investments have paid off quickly and Whole Foods' sales have risen by 15% in a year, thanks in part to reorganisation of the supply chain and lower prices. Amazon plans to expand internationally, opening 1,000 shops in the next few years. Amazon's investment in the food sector is just beginning; according to Bill Bishop, co-founder of food group consultancy Brick Meets Click, "the future of food retailing will see Amazon

dominate Walmart". A recent example is the launch of AmazonGo smart supermarkets with "Just Walk Out" technology. Finally, Amazon is increasingly partnering with long-established food retailers in many European countries to bring fresh produce to local consumers. Amazon's partners are Système U and Monoprix in France; Dia in Spain; and Morrisons in the UK. Amazon thus presents itself as a serious competitor that will surely become the leader of the European food retail market in the coming years by revolutionising the world of food.

However, the responsiveness of the retail sector should not be underestimated, and traditional supermarkets are trying to respond to these new challenges. They are offering an increasingly wide and diverse range of quality fresh fruit and vegetables to meet consumer expectations. Although these adaptations are not sufficient to catch up with the progress of the digital giants in the sector, they do offer credible and solid competition. In particular, they promote certain values specific to mass retail, such as the relationship between the retailer and local producers, which makes it possible to offer consumers fresh products in a short-circuit supply chain.

Moreover, the progress of the digital giants in the sector will depend on its acceptance by consumers. If this development does not correspond to consumers' values, then local supermarkets will keep their market share. For example, the strong price pressure that the digital giants place on producers may deter consumers from shopping. Consumers are becoming increasingly concerned about the ethical dimensions of their purchases, and may be led to favour shopping in supermarkets that appear to be more concerned about the remuneration of producers.

With the efforts made by the major chains to adapt to these new circumstances, supermarkets will survive for many more years. This will mean, among other things, integration of the current distribution patterns, as the product goes to the consumer, and less and less the other way round.

The future of food retailing will see Amazon dominate Walmart

Brick Meets Click



The (limited) impact of Brexit on the UK fruit and vegetable market

The withdrawal of the UK from the EU customs union and single market on 31 December 2020 impacts on ACP trade in varying ways, depending on the product and supply chain.

In terms of tariffs, the UK is no longer part of the preferential trade arrangements between the EU and ACP countries. Yet exports of fruit and vegetables from ACP countries to the UK are significant, with the UK producing only 25% of the fruit and vegetables it consumes. In addition to indirect exports (often via France, Belgium and the Netherlands), direct exports of ACP fruit to the UK market in 2018 were worth 865 million euros, and vegetables 173 million euros.

The UK has replicated the EU's **duty-free, quota-free access** regime that benefits all ACP least developed countries. Most tariff preferences have been extended through the conclusion of **bilateral continuity agreements** between the UK and ACP countries. This ensures continuity for the majority of ACP exports to the UK, with agreements in place with the following countries:

Region	Country
Central Africa	Cameroon
West Africa	Côte d'Ivoire
Eastern and Southern Africa (ESA)	Madagascar, Mauritius, Seychelles, Zimbabwe
Southern African Development Community (SADC)	Botswana, Eswatini, Lesotho, Mozambique, Namibia, South Africa
East African Community (EAC)	Kenya
Caribbean Forum (CARIFORUM)	Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago
Pacific Region	Fiji, Papua New Guinea

Negotiations on a trade agreement with Ghana are still ongoing. While some Ghanaian goods enjoy preferential access to the UK market through the UK's Generalised System of Preferences, others are subject to the Most Favoured Nation tariff. This applies in particular to bananas, which have been subject to an import duty of £0.095 per kg since 3 January 2021. This new duty threatens the profits of Ghanaian banana exporters, as the average wholesale price of bananas in the UK was £0.67 per kg in week 51 of 2020.³⁰

In terms of logistics, direct imports from ACP countries and indirect imports via the EU will be subject to new **phytosanitary controls**. The increase in the number of customs checks means that goods will pass through the EU/UK border more slowly, with delays causing additional costs and

risking loss of quality, and therefore value, of the most perishable products. These consequences have to be taken into account in the organisation of each value chain, despite the conclusion of a Trade and Cooperation Agreement between the EU and the UK. A report by LSE Consulting estimates an average price increase of 4.7% for generic and substitutable products, and of 9.9% for branded and speciality products imported from the EU into the UK. This increase in non-tariff costs along supply chains is estimated to result in a 22.6% decrease in EU food imports to the UK.³¹

To follow the news on the impact of Brexit on the ACP fruit and vegetable trade in the EU and UK markets, visit the Brexit section of COLEAP's online services.³²

³⁰ Gov.uk – Average weekly wholesale prices of bananas by country of origin

³¹ LSE Consulting - Vulnerabilities of Supply Chains Post-Brexit (2020)

³² <https://news.coleap.org/en/tag/brexit-en/>



V

ACP SUPPLY ON THE EUROPEAN FRESH FRUIT AND VEGETABLE MARKET

1. Overall development

Over the past ten years, there has been a steady increase in exports of fruit and vegetables from African (excluding South African), Caribbean and Pacific (ACP) countries to the EU market. The trend has not been linear, however, and this is even clearer if we exclude bananas, the volume of which is so large that it alone determines the overall export trend.

- Until 2009, exports of fruit (excluding bananas) and vegetables of ACP origin (excluding South Africa) fell, notably due to the collapse of pineapple exports.
- Since then, there has been a steady increase in European imports: in 2016, ACP countries (excluding South Africa) returned to the same level of exports of fresh fruit (excluding bananas) and vegetables to the EU as in 2002. The increase in export volumes then continued: exports to the EU increased by 40% between 2009 and 2019, although there was a slight decrease in 2019.

A closer look at the ACP supply shows growth in products that are well known and appreciated by Europeans, such as avocado, banana and mango, but at an increasingly low rate, which suggests a relative maturity or even saturation of the market in the case of bananas. On the other hand, products that are still relatively less well known, such as **sweet potatoes** and **Jerusalem artichokes**, are experiencing a sudden revival of interest and seem to have a very promising export future.

Figure 13: Evolution of ACP fresh fruit and vegetable exports to the EU in tonnes, including bananas, excluding South Africa (Source: Eurostat)

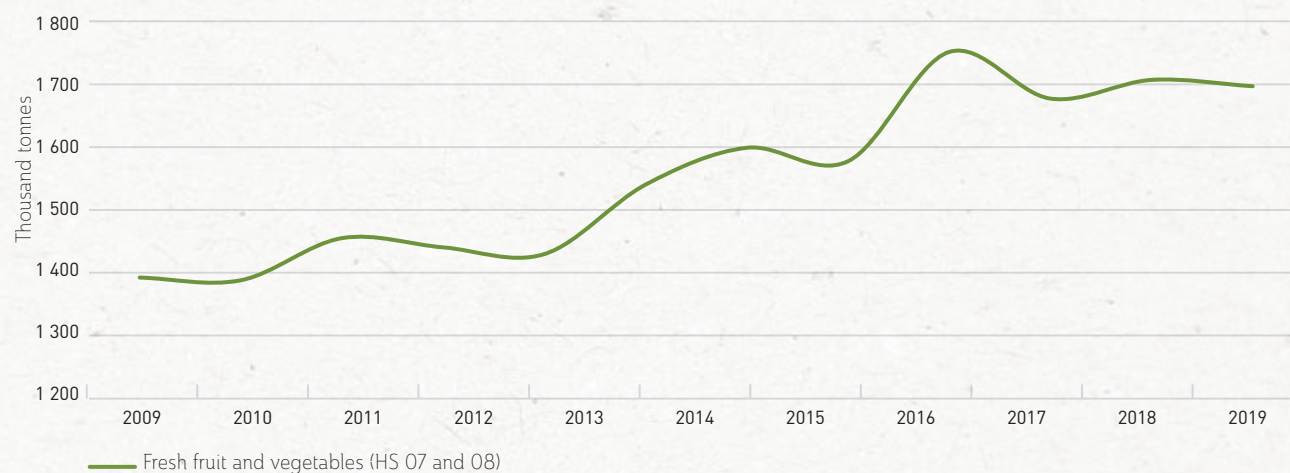
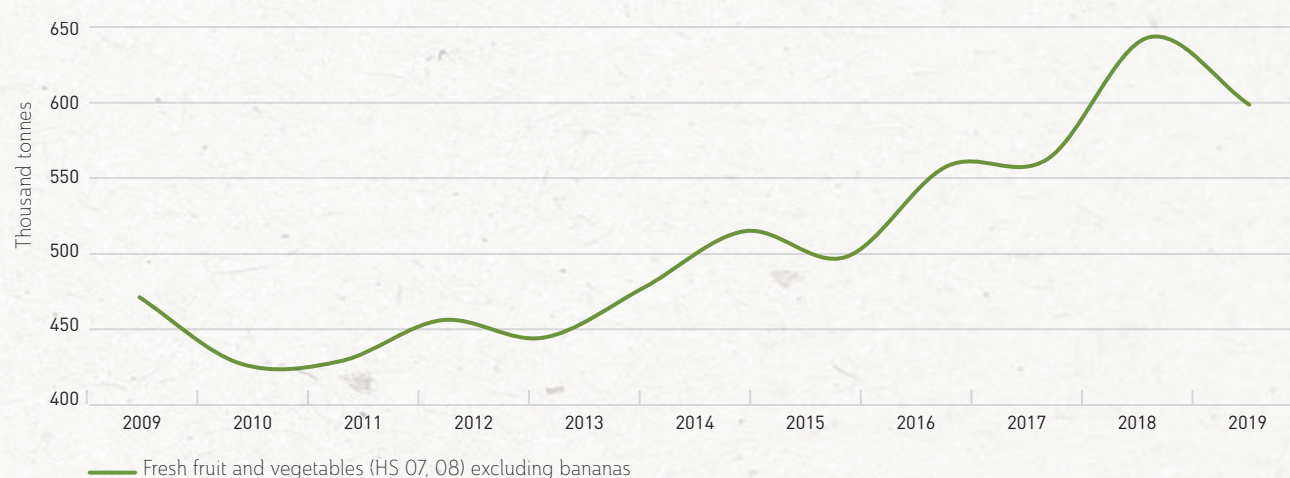


Figure 14: Evolution of ACP fresh fruit and vegetable exports to the EU in tonnes, excluding bananas, excluding South Africa (Source: Eurostat)



2. The European market for fruit and vegetables

2.1. Pineapple



Figure 15: Evolution of European pineapple imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

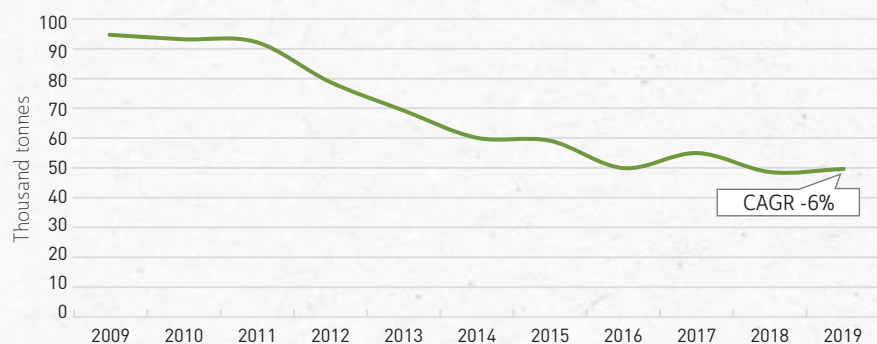


Figure 16: Evolution of European pineapple imports from the rest of the world (non-ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

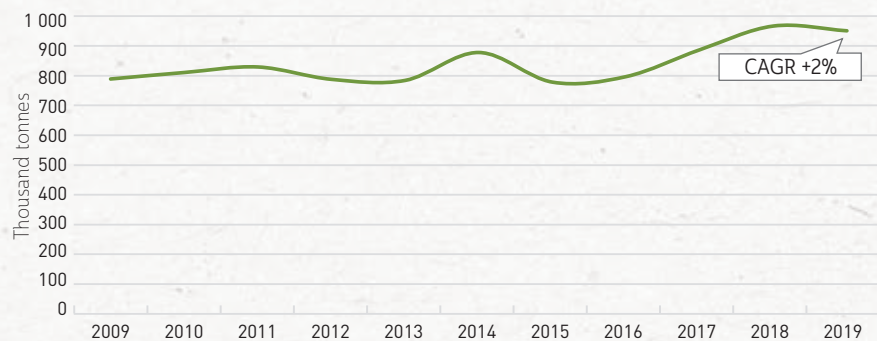


Figure 17: Share of exporting countries in EU28 pineapple imports of ACP origin, in tonnes, in 2009 (total: 94,681 tonnes) and 2019 (total: 49,679 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

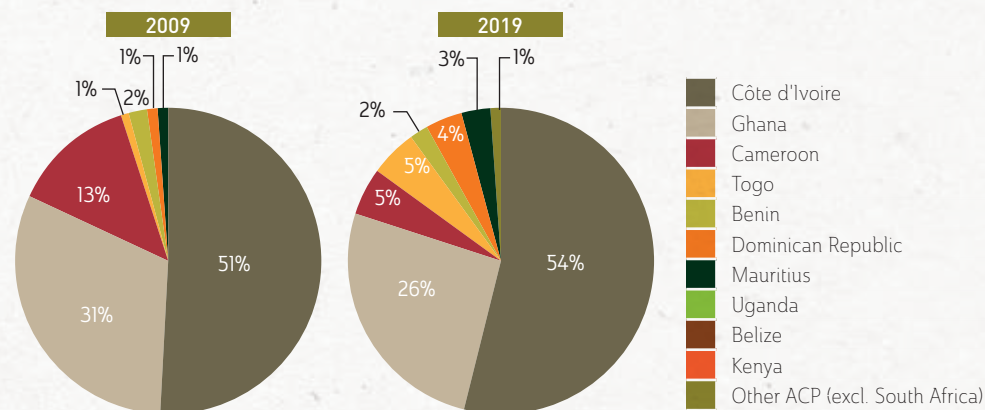
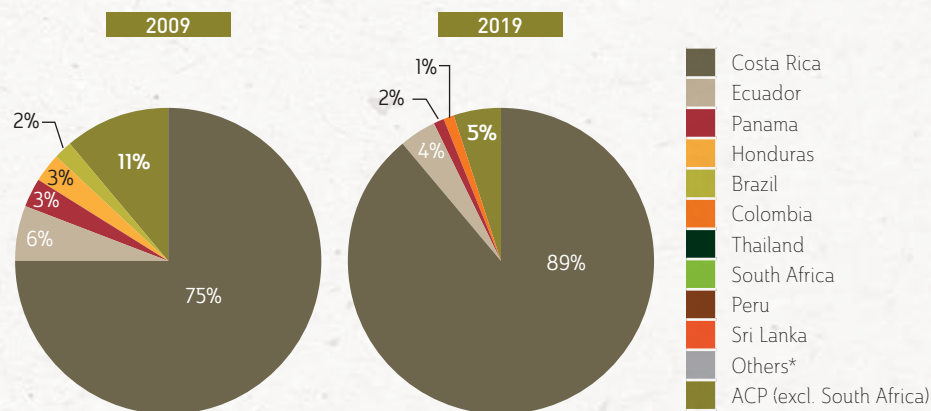


Figure 18: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 pineapple imports, in tonnes, in 2009 (total: 883,404 tonnes) and 2019 (total: 1,000,251). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





In 2018, 1.015 million tonnes of pineapples were imported into Europe: this is the European record for pineapple supply, which seals the **recovery of imports after a significant decline**, the lowest point of which was reached in 2015–16. The year 2019 confirms this return to growth with volumes similar to 2018.

Costa Rica is still the undisputed supplier to the European market, with a record 90% market share in 2019. The consequences of the drought caused by the seasonal El Niño coastal current seem to have been more than compensated for by an increase in cultivable area. Costa Rica's overwhelming dominance is having a major impact on competing economies, particularly in West Africa and Latin America: their market share has been falling steadily for the past two decades, from 65% in the early 2000s to just 10% in 2019.

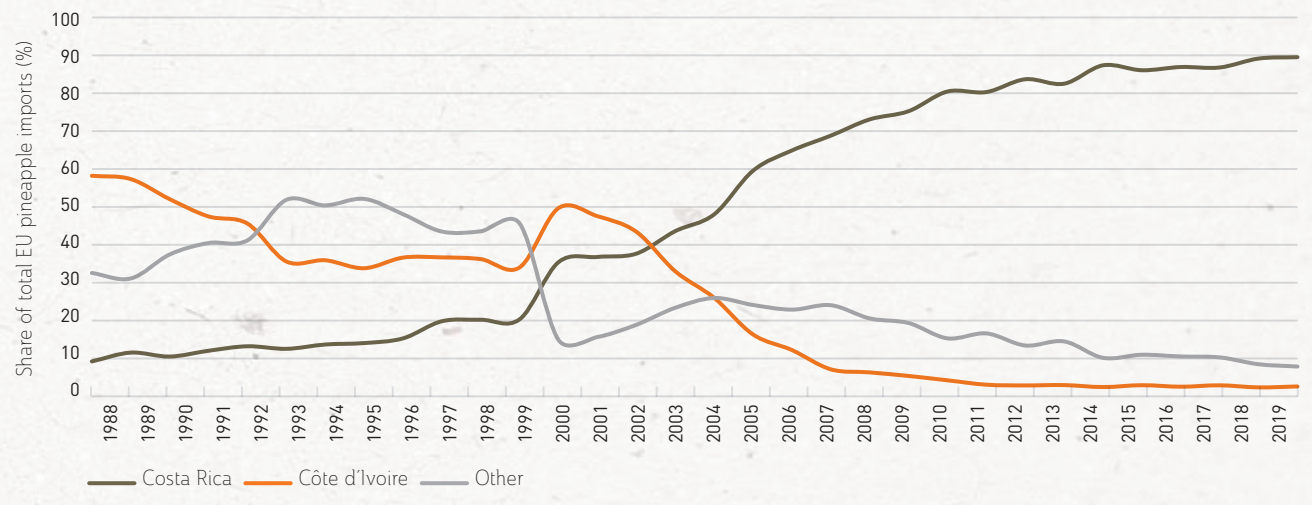
However, in recent years it has been worth noting:

- the stabilisation of European imports of pineapples from ACP countries in volume, which seems to signal a halt in the downward trend
- the increase in value of these imports, reflecting an encouraging increase in the value of the product.

Faced with Costa Rican quality that is difficult to match, certain origins have virtually disappeared, such as pineapples from Honduras, Cameroon and Benin. Some producing countries are trying to maintain their position, such as **Ecuador**, which is consolidating its second place with 40,000 tonnes of exported products by focusing on quality and technical competence.

What are the most promising markets for export to Europe?

Figure 19: Evolution of pineapple export market shares to the European Union (Source: COLEACP from Eurostat)



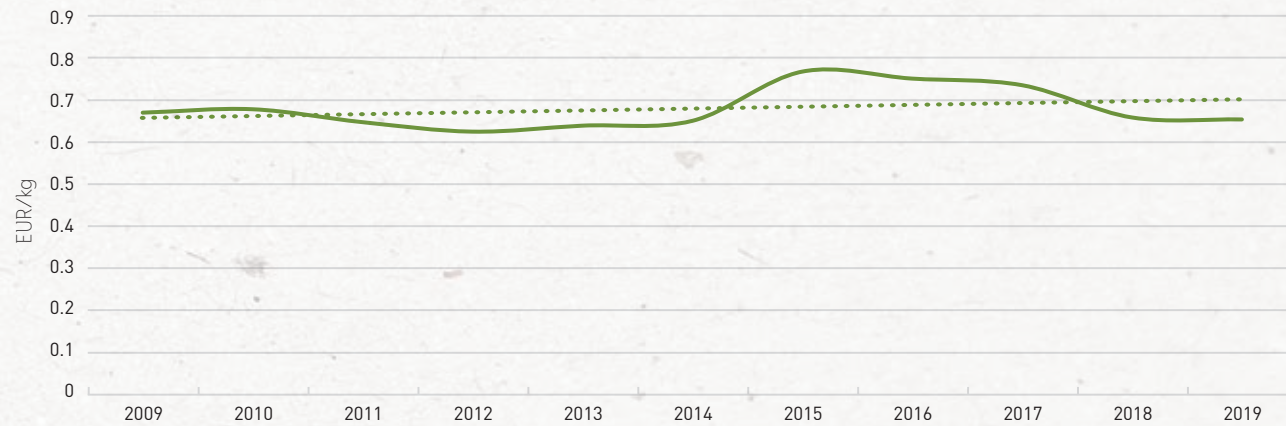
- **The UK and Spain** are the most promising markets:
 - The UK shows an increase in per capita spending on higher-value pineapples, including organic.
 - In this context, Ghana has increased its exports to the UK and is trying to compete with South Africa.
- **France and Germany** tend to source more from West Africa (Ghana, Benin) than from Costa Rica, due to geographical proximity to the region. West Africa is also increasingly able to comply with European regulatory requirements.
- **Sweden and Eastern European** countries show an increase in pineapple consumption, but per capita

expenditure is still low. There is therefore room for improvement in these regions.

The fresh pineapple market is becoming increasingly segmented, with five distinct ranges coexisting. The core of the market remains centred around the standard MD2 variety (80% of pineapples imported into Europe), while a more upmarket range of coloured MD2s is developing but requires a high level of technical expertise. The remaining offer corresponds to various varieties, such as Sugarloaf pineapple, Smooth Cayenne or Victoria pineapple. These varieties are still marginal on the European market, but offer development potential for ACP producers as Europeans are looking for new flavours.



Figure 20: Evolution of the average CIF import price of pineapple (all varieties) to the EU28 from non-EU28 countries (in EUR/kg). Average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The organic pineapple sector is not developing very well because the high implementation costs and low international prices lead to low yields.

A new niche of **zero-pesticide residue pineapples** emerged in 2019. Coming mainly from Latin American countries, this niche could expand to the whole EU in the coming years. It responds to consumer demand for pesticide-free products at a low price, and offers

a good alternative to organic farming and its more demanding specifications.

Over the past decade, pineapple import prices have remained stable. There was a slight increase between 2014 and 2015, but prices decreased again thereafter, in 2019 reaching a price 2% lower than in 2009. For a particular product, prices are obtained by dividing the total value of imports from outside

Europe by the total volume of imports from outside Europe.

Sales prices at wholesale level in France in 2020 are between 1 euro and 1.75 euros per kg for MD2 pineapples; 2.5–3 euros per kg for organic pineapples; 2.60–3.50 euros per kg for Sugarloaf; 2.40–3.20 euros per kg for Smooth Cayenne, and 3.60–5 euros per kg for Victoria.

The final prices in the shops vary from 1 euro (promotional price) to 2.50 euros per piece for the classic medium-sized varieties. Some larger or more specific varieties can be sold for up to 7 euros a piece. Organic and Fairtrade certifications allow prices to be around 50% higher than for conventional products. Pineapple is also a product riding the wave of fresh cut, highlighted in section 2.3. Final prices for fresh pre-cut pineapple are generally between 7 euros and 10 euros per kg.

The pineapple market is likely to experience another cycle of value decline in the coming years due to market saturation and crisis. At the end of 2018, Costa Rica announced the closure of two plantations due to rising production costs, falling international prices, and increased competition in the main sales markets of the USA and the EU. This crisis should allow a return to less saturated markets in 2020, but at the cost of heavy economic sacrifices, particularly for small producers.

2.2. Avocado



Figure 21: Evolution of European avocado imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

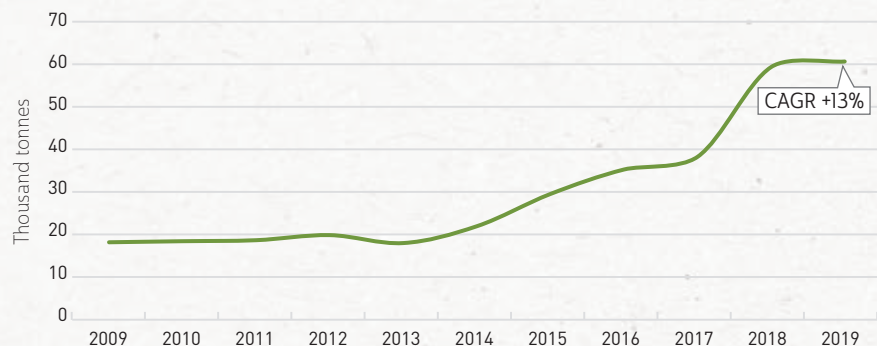


Figure 22: Evolution of European avocado imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

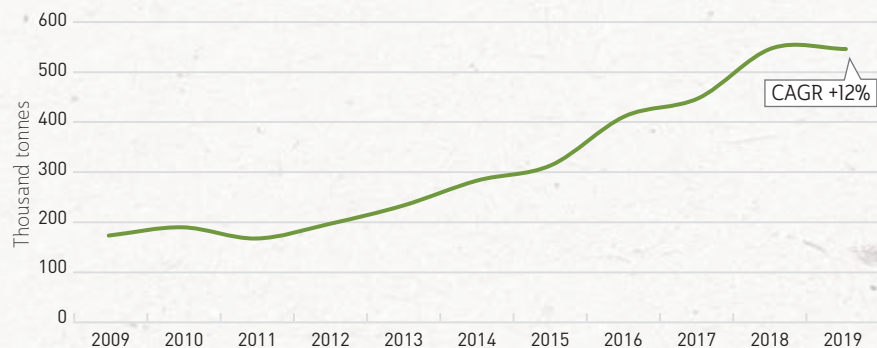


Figure 23: Share of exporting countries in EU28 imports of avocados of ACP origin, in tonnes, in 2009 (total: 18,188 tonnes) and 2019 (total: 60,647 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

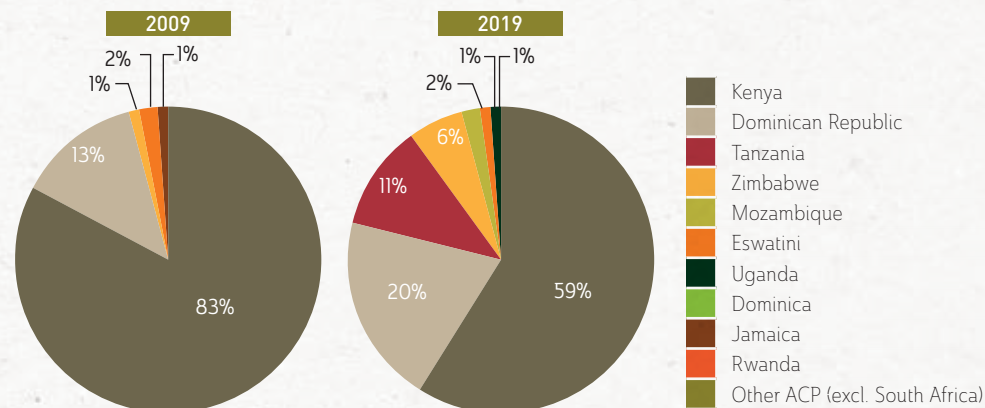
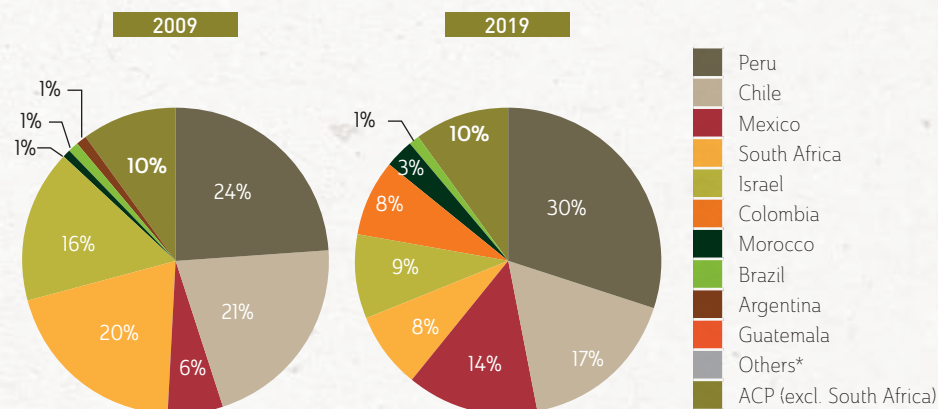


Figure 24: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 avocado imports, in tonnes, in 2009 (total: 191,626 tonnes) and 2019 (total: 606,690 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





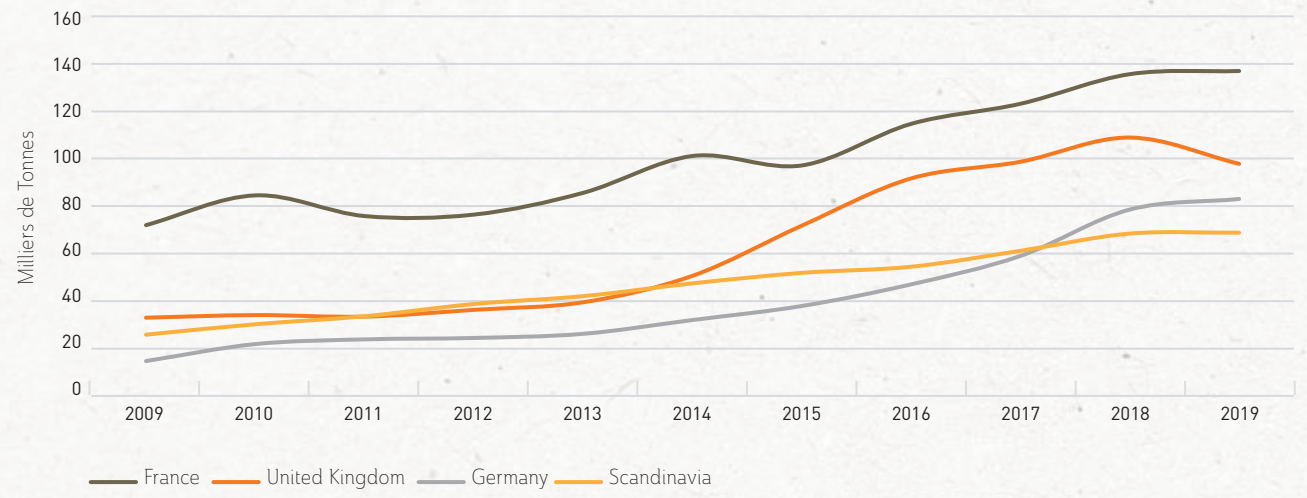
The global avocado market is very dynamic: between 2008 and 2018, **global production increased by 85.2%**, reaching 6.4 million tonnes in 2018. Avocado exports in 2018 totalled 2.4 million tonnes, an increase of 23% compared to the previous year, with a value of US\$5.6 billion³³.

Europe's avocado imports have followed the very strong global momentum driven by the USA. However, it seems that a growth ceiling has been reached in Europe: while avocado import growth increased by 25% between 2017 and 2018, import quantities stagnated between 2018 and 2019 at around 610,000 tonnes. This plateau remains to be confirmed in the future because, even if imports have slowed down, the consumption trend remains upwards suggesting a positive outlook.

This stagnation is the result of a shortfall not on the demand side, but on the supply side, particularly because the summer supply shortfall is too weakly compensated by any increase in winter production. Moreover, the European national markets reacted differently: the French, German and Scandinavian markets are (relatively) stagnating, while the British market has seen a sharp drop in avocado imports due to the weak pound sterling, a direct consequence of Brexit. Conversely, the still under-exploited Italian market has seen strong growth, with an additional 5,000 tonnes imported in 2019 compared to 2018.

The French market remains the European stronghold for avocado consumption, with a 17% increase compared to the 2017–18 period, and stands out for its consumer demand for premium avocados. France has seen a steady increase in the product's penetration rate: 73.6% of French

Figure 25: Avocado consumption in the main EU markets in thousands of tonnes, (Source: Eurostat)



households bought avocados in 2018, +1.5% per year since 2016. This increase, although constant, remains quite low compared to the developing consumption in other European countries.

The future of the UK market for avocados is uncertain: the very strong growth in the period 2012–16 ended with a season of stability in 2017–18. Since then, recovery of the UK market has been weak, as the 9% growth recorded in 2019 is barely half the average European growth. Volumes absorbed have nevertheless exceeded the symbolic 100,000 tonnes mark, making the UK the second largest importer of avocados in Europe. The weakness of sterling appears to be the main determinant of this trend, impacting retail prices

and reducing the attractiveness of the market. This downturn raises serious questions about the development opportunities of this market in the years to come, questions that are all the more acute since Brexit and in light of the country's currently unclear trade policy.

The German market is very dynamic, with a growth rate of 27% compared to 2018. Consumption exceeds 80,000 tonnes, an average of 1 kg per person. There are still great opportunities to be exploited in this market, as the percentage of households that buy, although growing by an average 3% per year, amounts to only 35%. Currently the average per capita consumption is 800 g, but avocados are becoming increasingly

33 Agrimaroc – L'avocat, un marché mondial en expansion qui intéresse les producteurs marocains (2019).



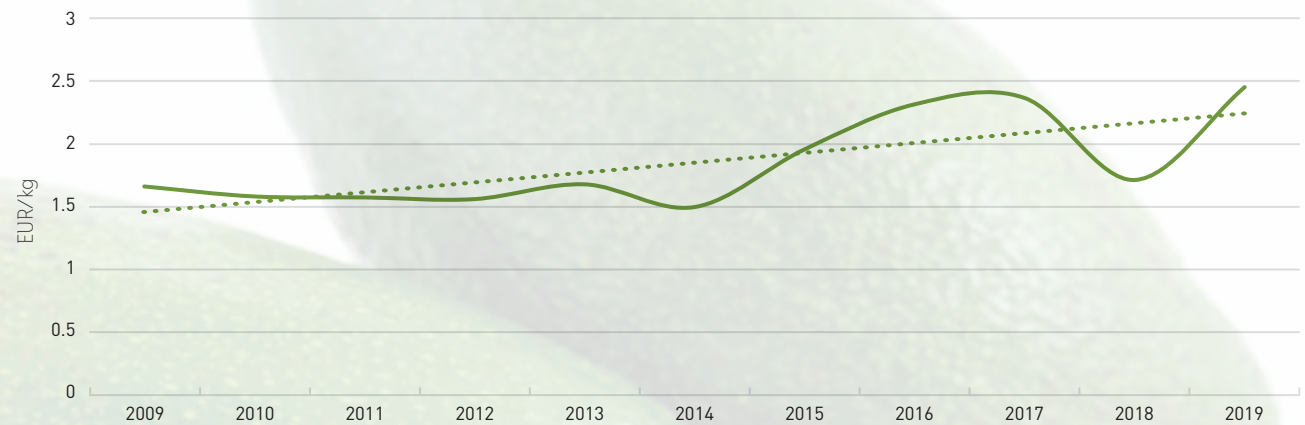
popular, so the country's overall consumption should be in line with that of the current high consumers. Avocados are widely distributed on the German market through large, well-established players, primarily Lidl. This hard-discount chain seeks to cultivate an image of demanding product quality: for example, the pesticide content of the avocados it sells must be at most one-third of the maximum level tolerated by European standards. These high standards can be an obstacle to exports. The Austrian market is following the same trends.

The Scandinavian countries are experiencing a return to a slight growth dynamic: volumes have increased by 5,000 tonnes in 2018–19 compared to the previous season, reaching around 60,000 tonnes. However, this dynamic is linked more to the fall in prices than to a real recovery in imports.

Finally, Italy had the best avocado season in 2019: consumption increased by 29% compared to the 2017–18 season. The changes concern both varietal range (from tropical avocado to Hass); and scale, from a micro-market of 6,000 tonnes per year to a significant market of 22,000 tonnes in 2018–19. The growth margins on the Italian market are still very high: average consumption per capita is only 350 g/year.

The growth of avocado imports into Europe, combined with the differences between supply (which is deficient in summer and high in winter) and demand, results in an **irregular evolution of the import price** of avocado into the EU. However, the declines in the import price in 2014 and, even more intensely, in 2018 have been followed by rapid increases, resulting in a 48% increase between 2009 and 2019 based on deflated prices.

Figure 26: Evolution of the average CIF import price of avocados (all varieties) to the EU28 from non-EU28 countries (in EUR/kg). Average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The global avocado market is also undergoing changes in the **varieties produced and marketed**: while the Hass avocado remains the most popular variety in the world in terms of both export volume and value, it is causing increasing problems for the production sector. The strong increase in global demand for this variety has led to a shortage of production, which is responsible for the stagnation of avocado imports into Europe. In France in 2020, wholesale prices ranged from 12 euros to 21 euros for boxes of about 20 pieces.

The **Greenskin** category, renamed "**Tropical**" for marketing reasons, is increasingly seen as an alternative: these avocados are two to four times the size of Hass but only 25% more expensive. This means that fewer avocados can be sold for the same weight for export. The benefits are also experienced by consumers, who can eat more for

the same price. The main market for this category is currently the east coast of the United States, while the European market remains underdeveloped: demand increased globally by 31% in 2018, but only by 5–6% in Europe. European consumers are rather cautious and need time to become familiar with this new product. The industry's goal is to increase total growth of Greenskin avocados by 35% by the end of 2020. Production is important in the Dominican Republic, with year-round sales on the European market, which generates large sales prospects for the country. In France in 2020, the price at wholesale level was between 3.50 euros and 4.50 euros per kg for the Greenskin variety.

The difficulties experienced by major producers in keeping up with dynamic world demand, and the geographical proximity of the ACP countries, offer **clear opportunities on the European market**



for ACP countries. South Africa and Kenya are consolidating their number two and six positions, respectively, in terms of avocado supply to Europe. South Africa is even on track to overtake Peru as the number one producer, as several large avocado specialists, such as Halls and Westfalia Fruit, have established themselves in South Africa. **The supply of avocados from South Africa to Europe doubled in 2018** compared to the previous year and, although the weather conditions have not been optimal, growth continues. During 2018–19, a record 377,000 nursery avocado trees were sold in South Africa. Kenya is the second largest supplier of avocados to ACP countries (including South Africa), and is currently the world’s sixth largest supplier of avocados to the EU28. Kenyan suppliers serve several European markets and charge competitive prices in the wholesale and processing channels, where aesthetic requirements are lower. At the same time, Kenyan producers and exporters are making great efforts to resolve any quality problems that may still be encountered. **Kenyan exports to Europe continue to grow steadily and will**



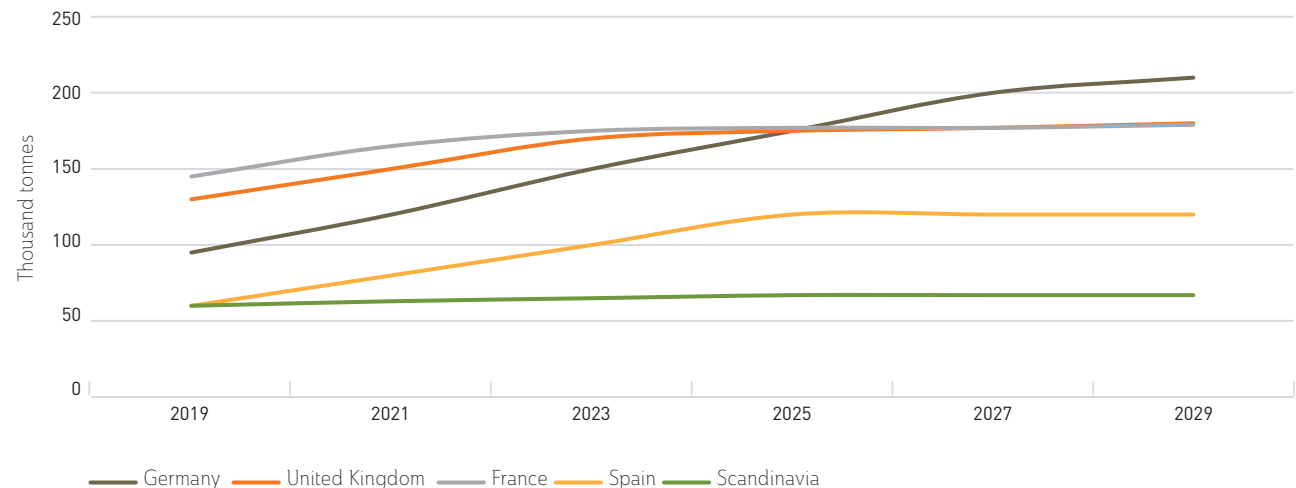
most likely continue to do so, while other African countries such as Tanzania and Zimbabwe are expected to follow.

New challenges and prospects are also arising for the sector. The main challenge is environmental: recently, avocado has been singled out by some Western media as a notable “ecological disaster”, particularly because of the very large quantity of water needed for its production. About 1,000 litres of water are needed to produce 1 kg of avocados, whereas 1 kg of tomatoes requires about 180 litres of water. Transport technologies, which use a lot of energy to ensure optimal preservation of the fruit, also contribute to avocado’s carbon footprint. Finally, rigorous selection of the fruit according to appearance before delivery to the shop also generates significant losses that are costly for the

environment. In this perspective, the **processing of avocados appears to be an opportunity that must be seized**. The development, particularly in Europe, of food products such as guacamole is an avenue to explore. Concerning the prospects for non-food processing that are open to the sector in the coming years, it is essential to consider other uses of avocado, particularly in the cosmetics sector. Avocado oil is widely used because it has many virtues compared to other types of body oil. Some ACP countries have seen the opportunities offered by this new market, notably **Nigeria**, which is seeking to develop the infrastructure to increase its production of “avocado cosmetics”.

Finally, the avocado sector must prepare for a **potential slowdown in growth by 2023**. The European market is projected to grow by only 40,000 tonnes per year in 2023, compared to almost

Figure 27: Projection of avocado imports in thousands of tonnes in European countries (Source: CIRAD)





65,000 tonnes per year between 2019 and 2022. This phenomenon is explained by the maturation of the leading European markets, notably France and the UK, with consumption reaching a ceiling of 2.5 kg per inhabitant per year, about one size-18 avocado per month.

In a context where the market is maturing, **promotion will be essential**. On one hand, it is necessary to continue to attract new consumers by emphasising the natural and dietary benefits of avocado. The increased focus on healthy foods, especially in the current Covid-19 epidemic, will certainly contribute to this. On the other hand, it is important to improve the frequency of purchase of the product by promoting its different modes of consumption and multiple uses. Another perspective is the diversification of markets: in particular, the sector can turn towards Asia, where avocado is still not well known. However, new obstacles are likely to arise, particularly with regard to the time and conditions for transporting products to the other side of the world. The prospects for frozen avocados in China seem promising in this respect.

Finally, the environmental dimensions (water management and carbon footprint) should be addressed in the information and communication messages sent to the market.



2.3. Banana



Figure 28: Evolution of European banana imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

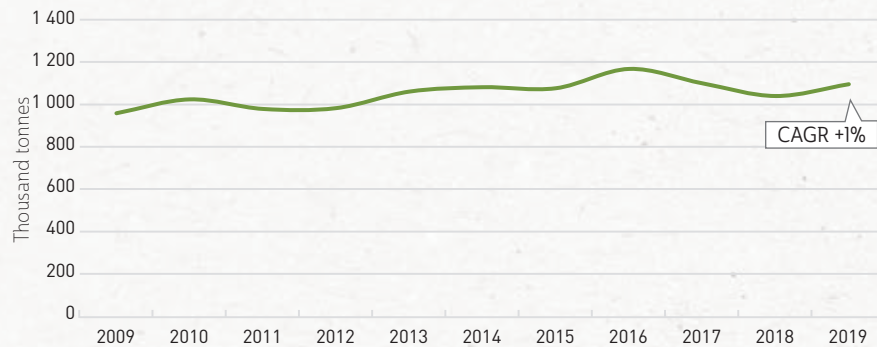


Figure 29: Evolution of European banana imports from the rest of the world (non-ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

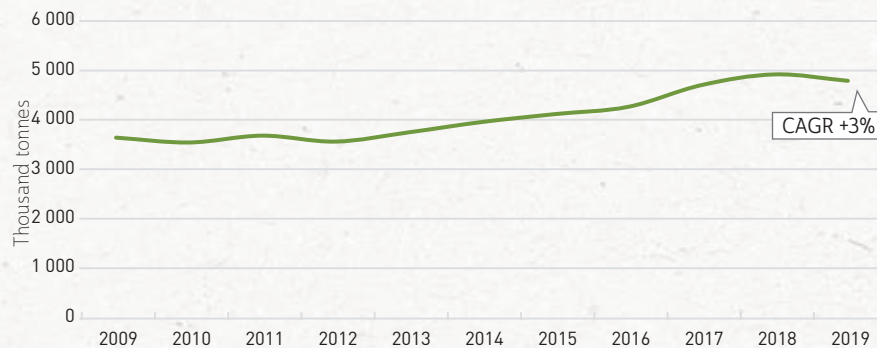


Figure 30: Share of exporting countries in EU28 banana imports of ACP origin, in tonnes, in 2009 (total: 958,162 tonnes) and 2019 (total: 1,095,337 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

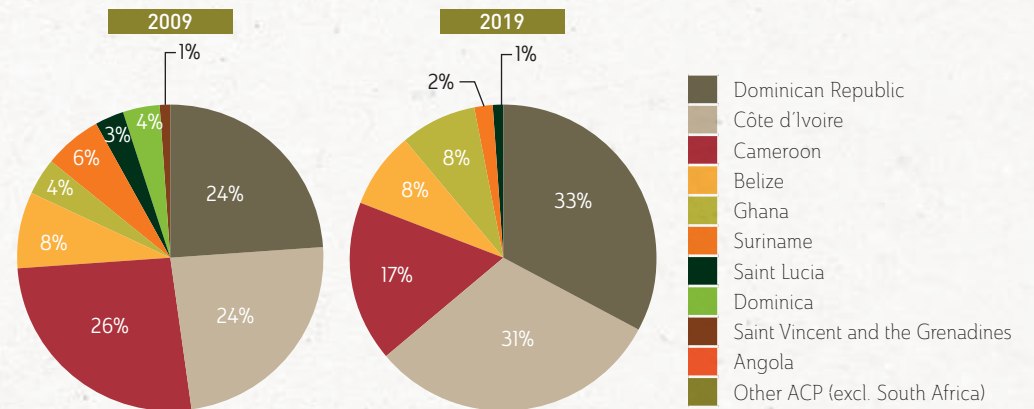
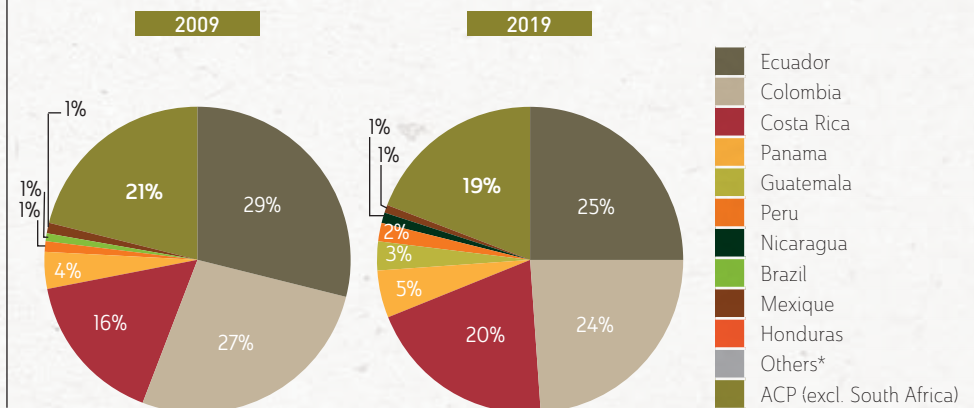


Figure 31: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 banana imports, in tonnes, in 2009 (total: 4,597,889 tonnes) and 2019 (total: 5,885,462 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





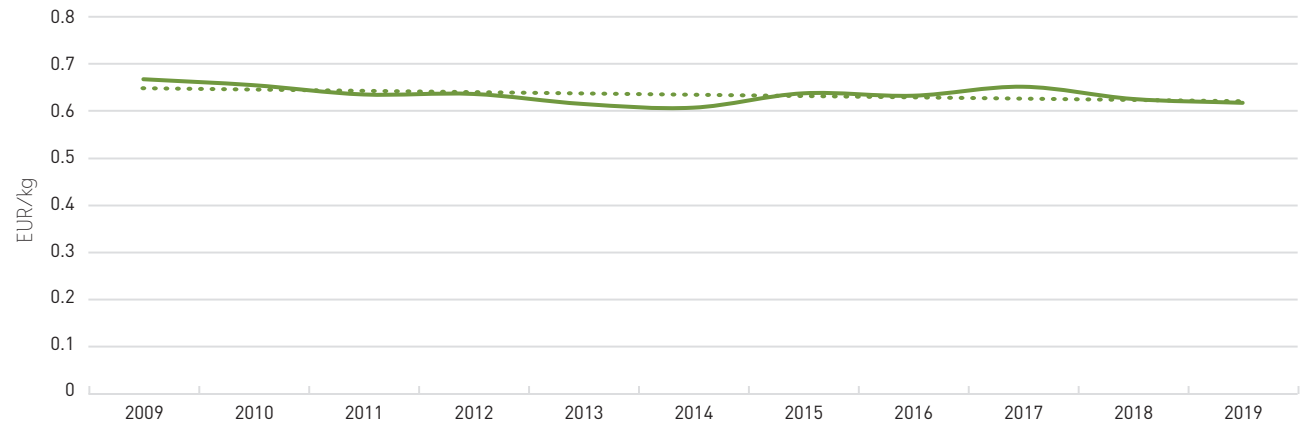
In 2018, a new record was reached with almost 6 million tonnes of bananas imported into the EU, an increase of 29.6% compared to the volume in 2009. However, growth is expected to slow down to -1.2% in 2019 compared to an average of +5.0% over the past six years.

The growth of the EU market was mainly driven by the countries of **Central and South America**. These countries, mainly Ecuador, Colombia and Costa Rica, have reinforced their dominance, accounting for 75.7% of EU supplies. Colombia (+16%), Costa Rica (+53%) and Guatemala (+3565%) have increased their volumes the most between 2009 and 2019.

The ACP market share has decreased slightly since 2009: from 21% in 2016 to 19% in 2019. In 2019, the ACP countries exported around 1 million tonnes, an increase of 5.4% compared to 2018. In **Africa**, it is Cameroon's exports that have fallen (-24% between 2009 and 2019), especially since 2016. Côte d'Ivoire, however, has followed the growth trend (+48% between 2009 and 2019), as has Ghana, whose exports are growing the most, with a total increase of 133% between 2009 and 2019.

In the **Caribbean** ACP countries, the Dominican Republic (+60%) and Belize (+8%) have consolidated their exports over the past decade. On the other hand, the downward trend is seen in Suriname (-67%) and Saint Lucia (-81%) between 2009 and 2019. The Dominican Republic is also losing share in the organic market in the face of growing competition from Latin America (Ecuador and Peru).

Figure 32: Evolution of the average CIF import price of bananas (excluding plantains) to the EU28 from non-EU28 countries (in EUR/kg). Average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



For some years now, the European banana market has been overwhelmed by a huge supply that generates large surpluses: 3.2 million tonnes, 10 times the annual export capacity of Côte d'Ivoire. This has resulted in a decrease in the average import price of fresh bananas to the EU over the past decade (-8% between 2009 and 2019 based on deflated prices). From 2014 onwards, however, prices have stabilised and the price of a 20 kg carton of bananas has remained at around 13 euros.

The sales price at wholesaler level in France in 2020 is estimated to be between 0.90 euro and 1.40 euros per kg of bananas. The range is higher for organic bananas, with prices between 1.20 euros and 2.20 euros per kg.

Europe still presents opportunities for banana exporters, especially in **Eastern Europe** where consumption of this fruit is still underdeveloped. However, South American producers, primarily Ecuador, have exclusive rights to import bananas to the Russian market.

Other potential for development lies in the organic sector: the number of consumers of organic bananas on the European market has increased by 25% over the past three years. The flows come mainly from ACP regions (52%, mainly from the Dominican Republic), with some farms having converted their entire production to organic farming.

2.4. Plantain



Figure 33: Evolution of European imports of fresh plantains from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

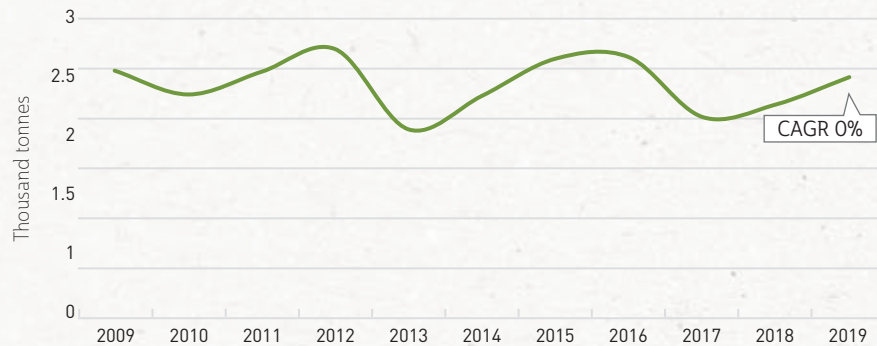


Figure 34: Evolution of EU imports of fresh plantains from the rest of the world (non-ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

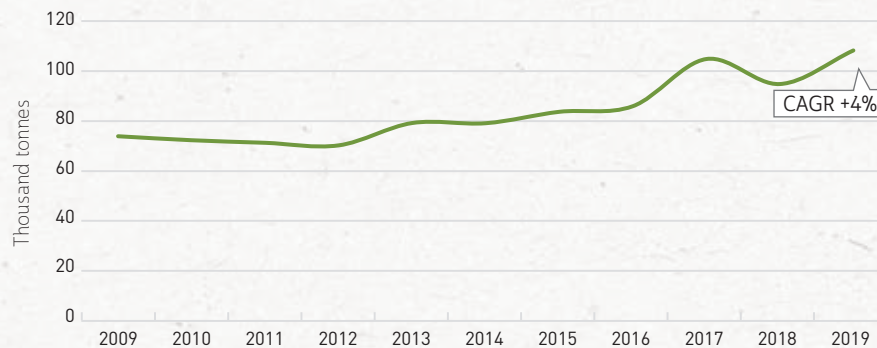


Figure 35: Share of exporting countries in EU28 imports of fresh plantains of ACP origin, in tonnes, in 2009 (total: 2,480 tonnes) and 2019 (total: 2,415 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

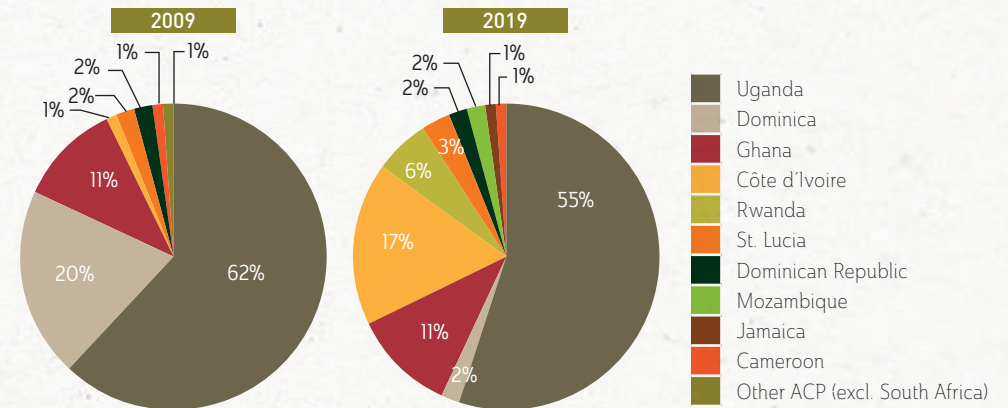
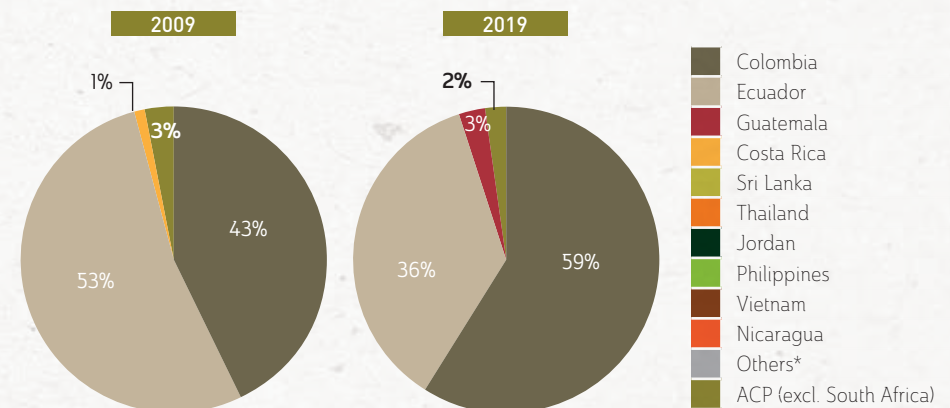


Figure 36: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 imports of fresh plantains, in tonnes, in 2009 (total: 76,386 tonnes) and 2019 (total: 110,654 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





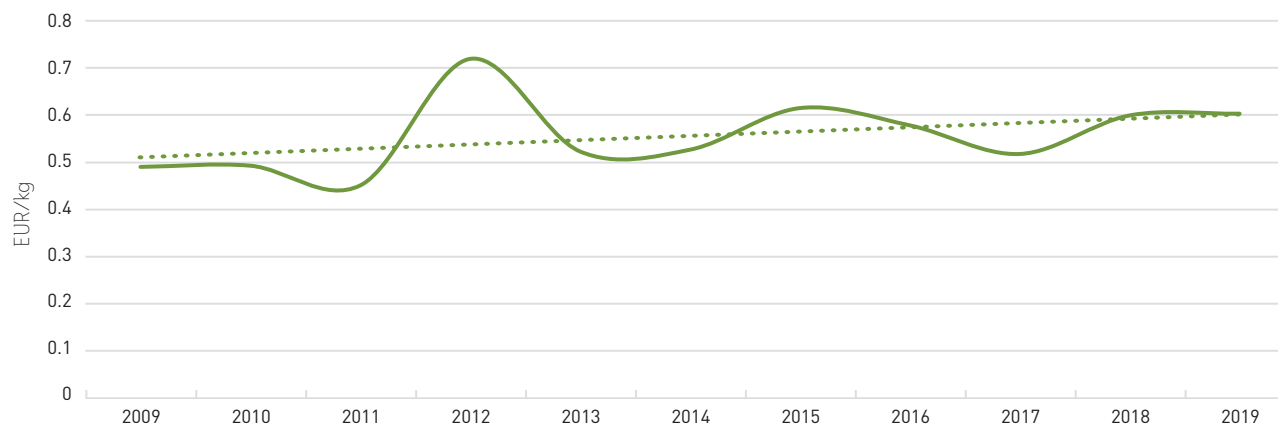
Plantain is still not widely exported: of the 39.5 million tonnes produced in 2018, only 3.4%, around 1.3 million tonnes, are exported worldwide. Apart from local markets, exports are mainly directed towards the USA and Saudi Arabia, and to a lesser extent to Europe.

After several years of stability, in 2017 the volume of European imports was thought to have increased to exceed the 100,000 tonne mark. However, the figure of 130,000 tonnes for 2016 stated in the first edition of this study has since been revised downwards to around 88,600 tonnes. Confusion in customs declarations between bananas and plantains led to this overestimate.

Most of the supply to the European market comes from Latin America, with **Colombia** and **Ecuador** competing for the top spot. Despite their privileged links with the European market, the countries of Central and West Africa are far behind: **Uganda** is the leading African country and ranks only fourth. In 2019, EU28 plantain imports from ACP countries represented only 2% of total plantain imports. This share has decreased slightly over the past decade, while plantain imports from ACP countries have remained stable.

The increase in European imports is accompanied by an increase in the import price (+23% on a deflated price basis) between 2009 and 2019. The irregular evolution (notably the peak in 2012) may, in part, be the result of confusion in customs declarations

Figure 37: Evolution of the average CIF import price of plantains to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



between bananas and plantains, and therefore of overestimations.

Prospects for the development of plantain in Europe remain **relatively low**, as its consumption is still limited to ethnic populations and remains little known to the European public. However, it is possible that consumer interest in this product will increase in the coming years, in a similar way to the current interest in sweet potatoes. Given the steady growth, there is a place for ACP suppliers.



2.5. Green bean



Figure 38: Evolution of European imports of green beans from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

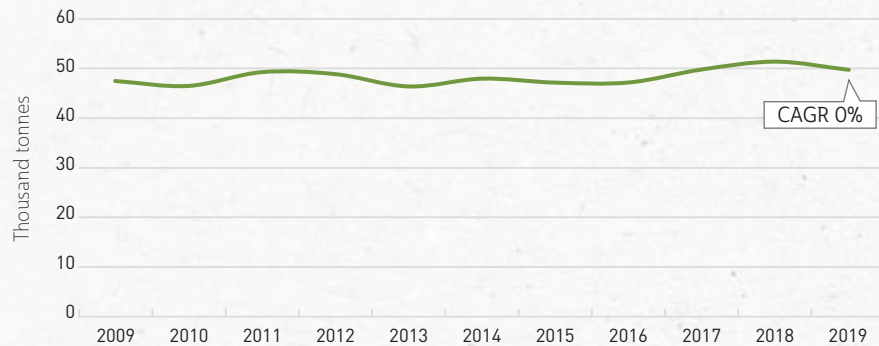


Figure 39: Evolution of European green bean imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP according to Eurostat)

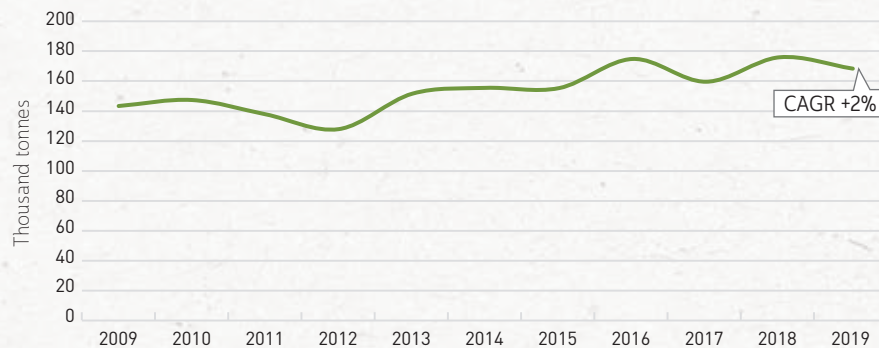


Figure 40: Share of exporting countries in EU28 imports of green beans of ACP origin, in tonnes, in 2009 (total: 47,487 tonnes) and 2019 (total: 49,733 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

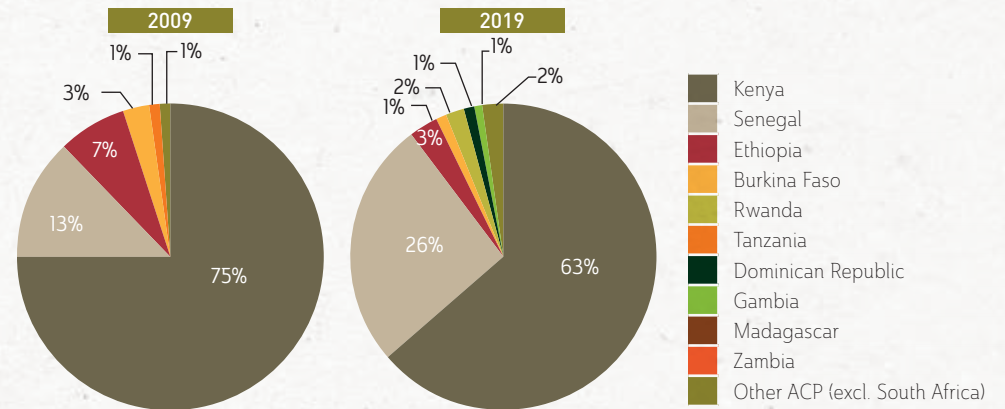
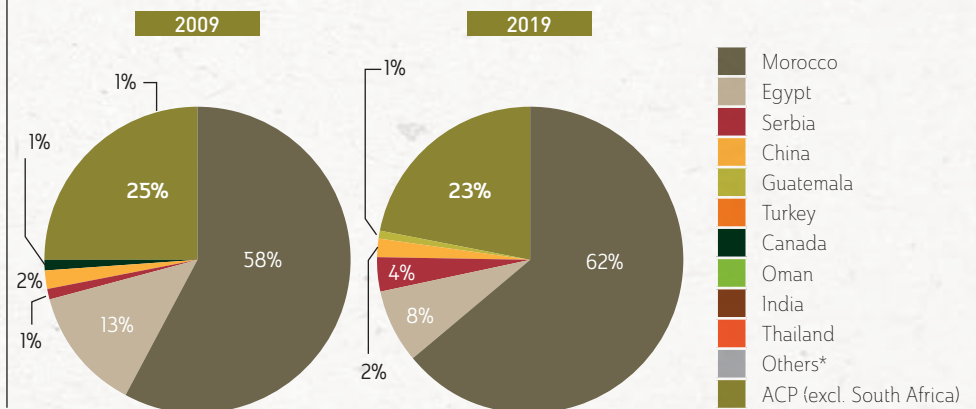


Figure 41: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 green bean imports, in tonnes, in 2009 (total: 190,854 tonnes) and 2019 (total: 218,082 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)



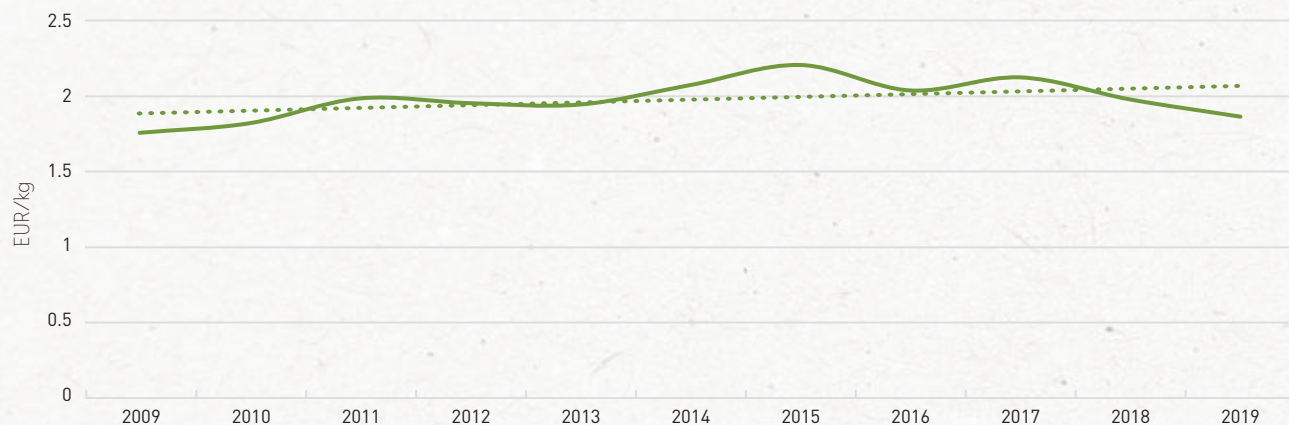


Green beans are an essential vegetable on European market stalls, as they are often produced locally. Annual production on the European continent amounted to 759,000 tonnes in 2018. Italy and Spain are the main European producers, with an average production of 163,824 and 138,925 tonnes, respectively, in 2018.

Imports of fresh green beans are **mainly in the off-season**, according to a variable calendar depending on the origin: for example, from Burkina Faso from December to March; from Senegal from January to April; from Morocco from March to June; from Egypt from November to June; and from Kenya all year round.

ACP countries are well represented among preferred suppliers to the European green bean market. Among the top 10 suppliers to the European market, six are ACP countries, in particular **Kenya** and **Senegal**, which together supplied 21.5% of total European imports of fresh green beans in 2019. The development of this sector within their horticultural production, as in Senegal, is a real success story and an example for others. **Rwanda** has also seen impressive export growth in recent years, averaging 130% per year over the past four years in volume terms. Between 2016 and 2019, volumes increased

Figure 42: Evolution of the average CIF import price of green beans to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



sixfold, from 194 tonnes to 1,188 tonnes, although growth seemed to stall between 2018 and 2019.

The average import price of green beans to the EU has increased by 6% over the past decade on a deflated price basis. This relatively stable development has seen two episodes of decline, one in 2016 and the most recent in 2018/19.

In France, the sale price at wholesale level is estimated to be between 6 euros and 7.20 euros per kg of green beans from Kenya. Kenyan green beans are sold at a higher price than beans from Morocco, the main exporter to the EU, whose prices tend to be between 1.70 euros and 3.60 euros per kg.

2.6. Yam



Figure 43: Evolution of European yam imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2012 and 2019 (Source: COLEACP from Eurostat)

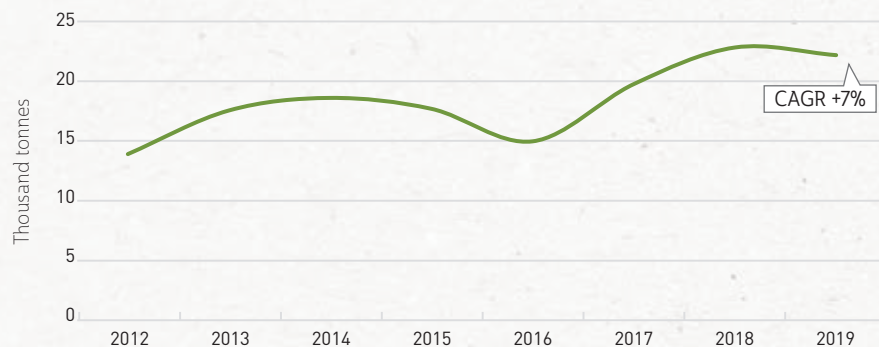


Figure 44: Evolution of European yam imports from the rest of the world (non-ACP countries, except South Africa), in tonnes. CAGR between 2012 and 2019 (Source: COLEACP from Eurostat)

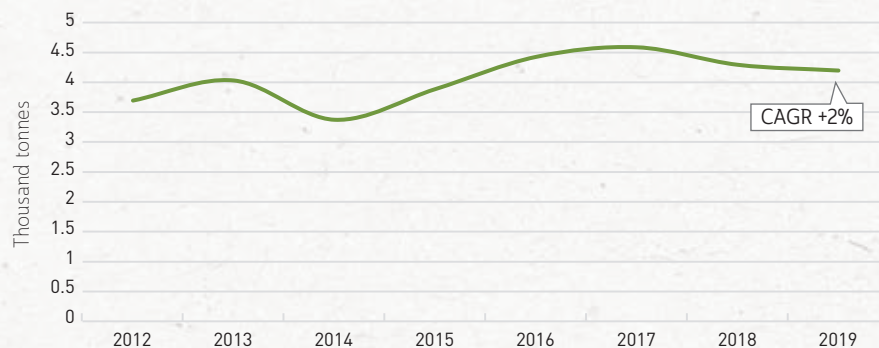


Figure 45: Share of exporting countries in EU28 imports of yams of ACP origin, in tonnes, in 2012 (total: 13,900 tonnes) and 2019 (total: 22,180 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

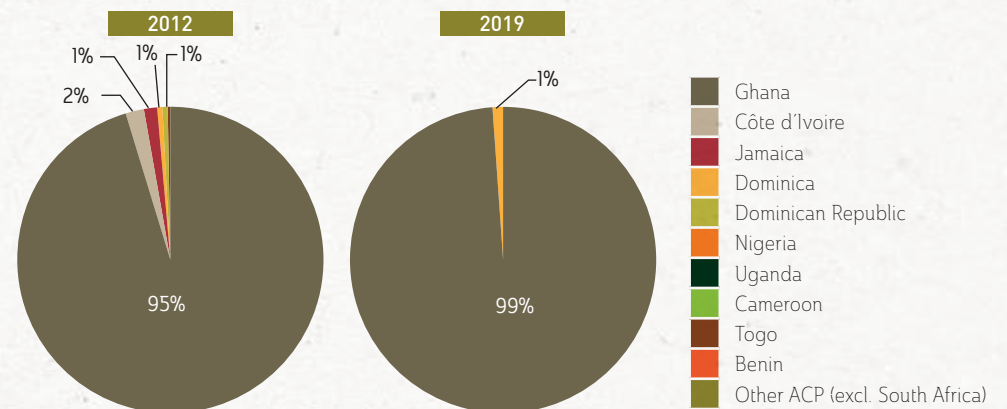
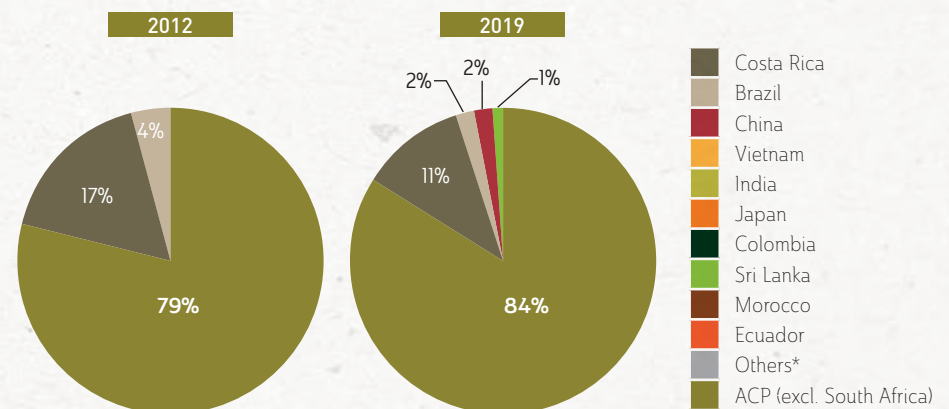


Figure 46: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 yam imports, in tonnes, in 2012 (total: 17,594 tonnes) and 2019 (total: 26,376 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)



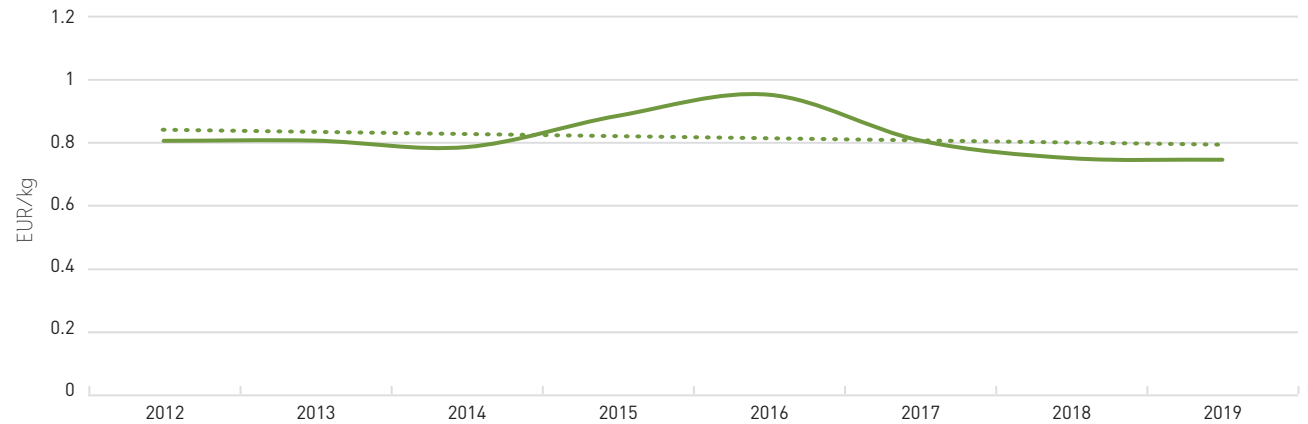


In 2019, 26,000 tonnes of yams were imported into Europe. **Ghana** is the main African producer and supplier to Europe.

Import prices have remained fairly stable between 2012 and 2019 for yam, at around 0.8 euro per kg, with a slight increase between 2015 and 2016 followed by a return to normal. At the wholesale level in France in 2020, prices are between 1.50 euros and 2 euros per kg for yam from Ghana

The greatest future prospects for this tuber lie in **industrial processing**. Yams contain a lot of starch, a resource used as a thickening agent in the textile industry or to make paper. **Togo** has grasped these new challenges and is developing its yam crop, which is becoming an essential resource for the country. Togo has even established links with Brazil, which is developing a network of ultra-modern printing plants.

Figure 47: Evolution of the average import price of yam to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated to the annual HICP with reference period 2015. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



2.7. Lychee and passion fruit



Figure 48: Trends in EU imports of lychee and passion fruit, grouped with fresh tamarind, cashew apple, jackfruit, sapodilla, carambola and pitahaya (HS 08109020) from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

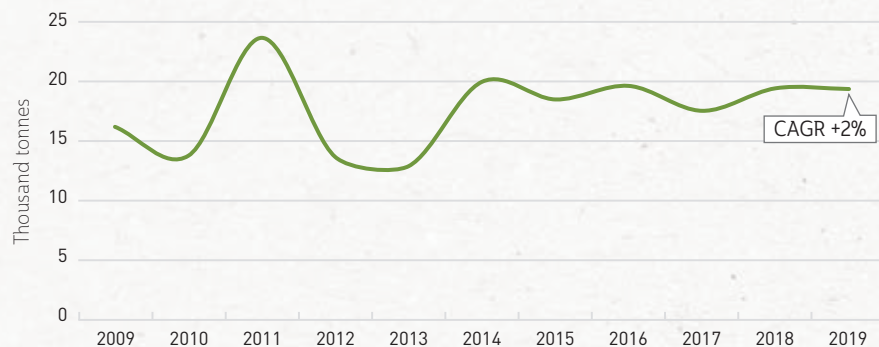


Figure 49: Evolution of European imports of lychee and passion fruit, grouped with fresh tamarind, cashew apple, jackfruit, sapodilla, carambola and pitahaya (HS 08109020) from the rest of the world (non-ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

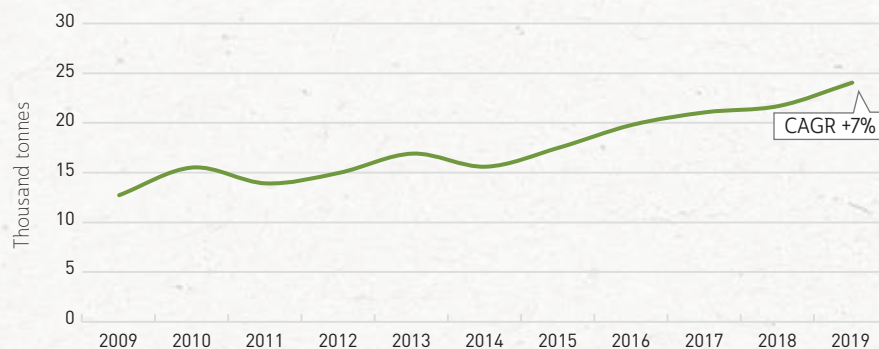


Figure 50: Share of exporting countries in imports of lychee and passion fruit, grouped with fresh tamarind, cashew apple, jackfruit, sapodilla, carambola and pitahaya (HS 08109020) of ACP origin from the EU28, in tonnes, in 2009 (total: 16,194 tonnes) and 2019 (total: 19,363 tonnes), excluding South Africa (Source: COLEACP based on Eurostat)

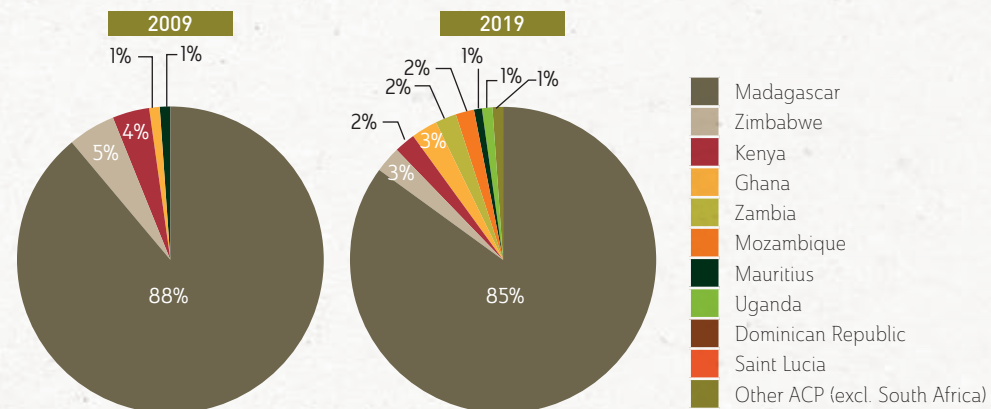
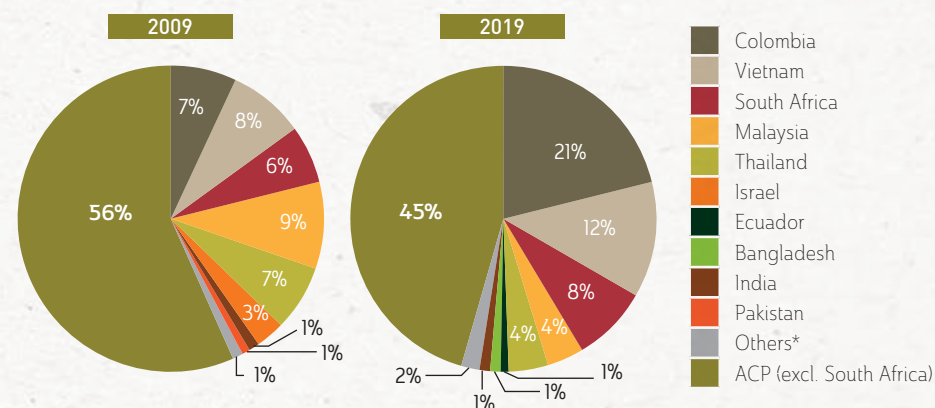


Figure 51: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 imports of lychee and passion fruit, grouped with fresh tamarind, cashew apple, jackfruit, sapodilla, carambola and pitahaya (HS 08109020), in tonnes, in 2009 (total: 28,928 tonnes) and 2019 (total: 43,413 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





Lychee consumption is still limited as it is traditionally associated with festive occasions, but is gradually **gaining popularity in the European market**, particularly for its fresh, healthy and exotic character. The main import markets for exotic fruits in Europe are **France, Belgium** and the **Netherlands**. The lychee market reflects this trend as the French market absorbs the largest volume. The Belgian market is experiencing very strong growth in imports of exotic fruits such as lychees. Belgium has developed a strong network of re-exporting exotic fruits throughout Europe from its ports, which are entry points for international goods.

It is generally estimated that the annual European import volume is between 15,000 and 20,000 tonnes. These imports are concentrated in winter, mainly during the month of December due to the end-of-year celebrations. They mainly come from **Madagascar**, as well as from China and India. While the latter two are the world's leading producers of lychee, most European imports come from Madagascar (14,500 tonnes for the 2020 season, which runs from November to the end of January).

As in the first edition of this COLEACP study in 2017, it is difficult to assess the European passion fruit market quantitatively due to the limited statistics available. The volumes exported to the EU are in the order of **6,000 to 8,000 tonnes** per year.

The largest producers are **Brazil, Ecuador** and **Peru**, and they direct most of their production towards processing. In Europe, passion fruit is consumed more in the form of fruit juice, ice cream or as a base for dairy products than in its fresh form. In Peru, the world's largest exporter of passion fruit, 70% of production is destined for industry and over 90% of the fruit is exported





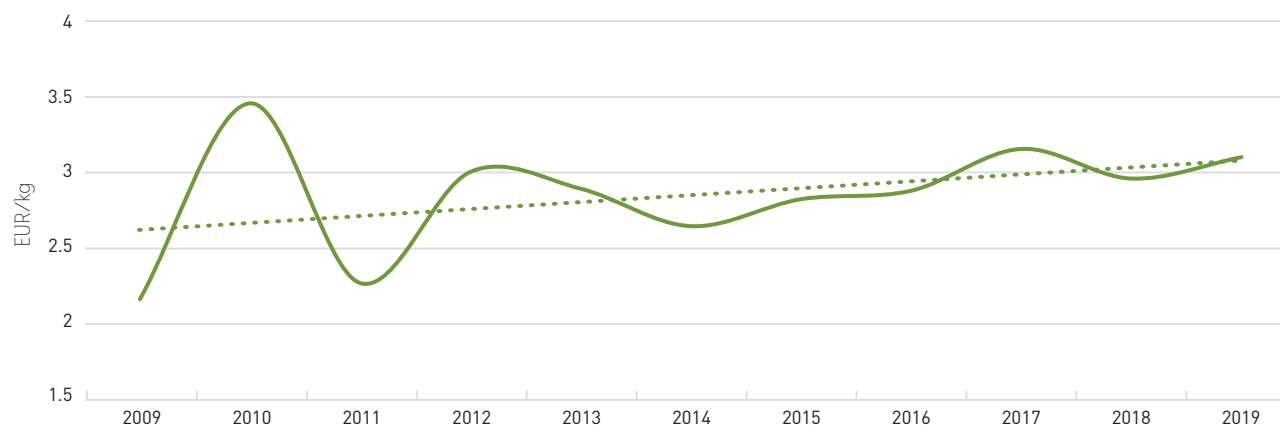
as juice, concentrate, pulp or nectar³⁴. Colombia remains the main supplier for the European market. The ACP supply is mainly concentrated in **Kenya, South Africa and Zimbabwe**, which supply part of the European market.

While almost all supermarkets, greengrocers and discount retailers offer passion fruit for sale, the name of the fruit is not always clear. "Passion fruit" covers many varieties that differ in quality, price and purpose. **Colombian passion fruit**, also known as purple passion fruit, is standard in terms of quality and has a short shelf life. Other origins, mainly from South Africa and Vietnam, are often hybrids with larger or smaller sizes. The demand is mainly for ethnic African consumption.

Finally, two other varieties of passion fruit are also imported but in very small quantities: yellow passion fruit and mountain granadilla. They are not recognised by the general public and are available only in a few ethnic shops, particularly Afro-Caribbean ones. However, their increasing consumption through recognised specialists such as Grand Frais, for example, suggests that they could grow in popularity.

The potential for commercial development of fresh passion fruit is **limited in Europe** due to its often unattractive appearance and confusing consumption. More attention should be paid to its processed forms, particularly in the form of purée, which is increasingly used by industry, or as fruit juice in multi-vitamin recipes.

Figure 52: Evolution of the average CIF import price of lychee and passion fruit (all varieties) to the EU28 from non-EU28 countries (in EUR/kg). Average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The average import prices of lychee and passion fruit have increased between 2009 and 2019 by 43%. After a period of irregular evolution (between 2009 and 2014), the average import price of these two fruits in the EU is experiencing rather stable growth.

Sale prices at wholesale level for both lychee and passion fruit vary greatly. In France in 2020, the price of lychee varied between 2.60 euros and 18 euros per kg, and that of passion fruit between 5 euros and 14 euros per kg, depending on the origin, organic nature, variety and type of transport.

³⁴ Fresh Plaza – Pérou : premier exportateur mondial de fruits de la passion (2019).

2.8. Sweetcorn



Figure 53: Evolution of European sweetcorn imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

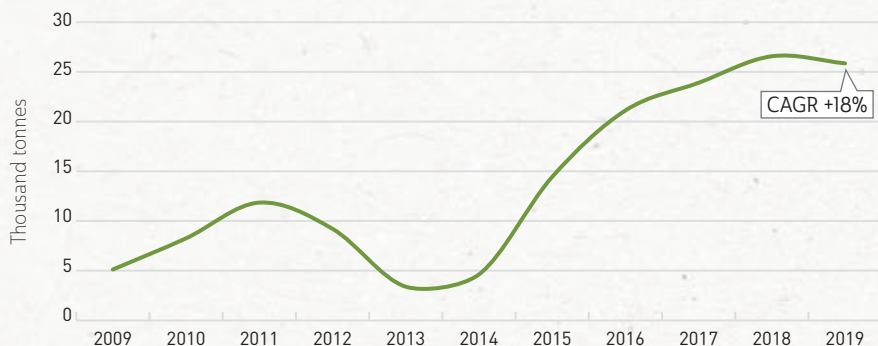


Figure 54: Evolution of European imports of sweetcorn from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

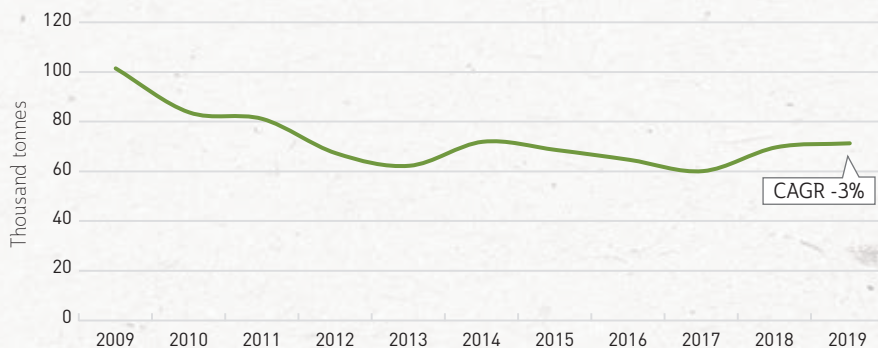


Figure 55: Share of exporting countries in EU28 imports of sweetcorn of ACP origin, in tonnes, in 2009 (total: 5,128 tonnes) and 2019 (total: 25,860 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

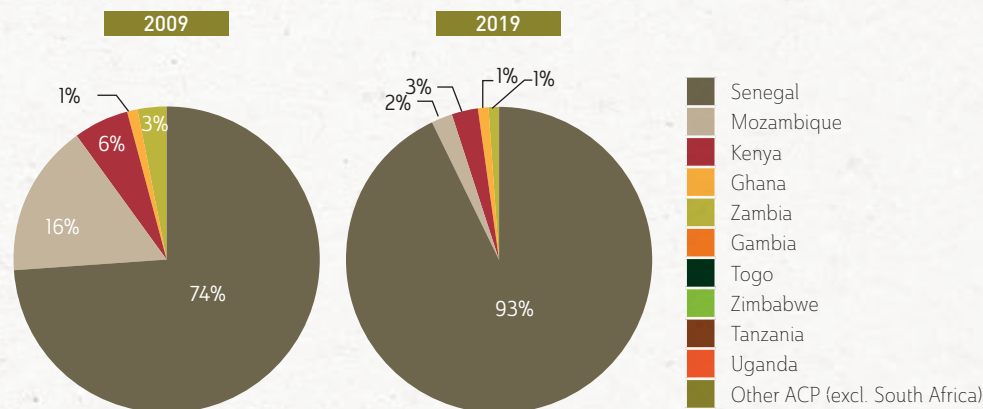
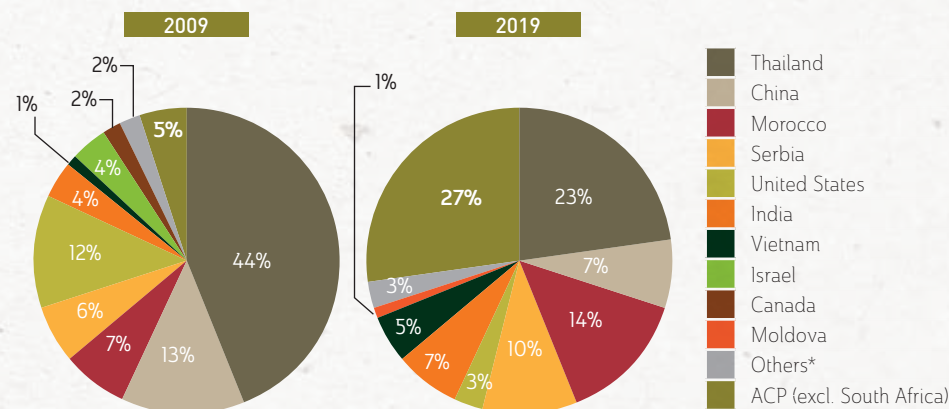


Figure 56: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 sweetcorn imports, in tonnes, in 2009 (total: 106,592 tonnes) and 2019 (total: 97,163 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





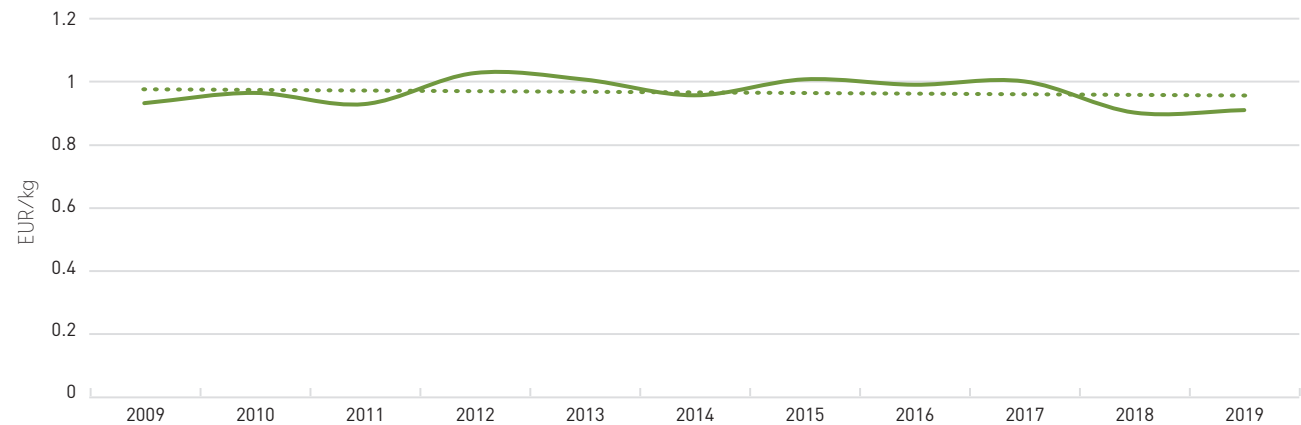
The market for sweetcorn is growing strongly in Europe, although it has not reached the size of the market for grain maize, the most widely grown cereal in the world. Sweetcorn accounts for no more than 1% of the world's maize, with 9 million tonnes grown per year, whereas around 850 million tonnes of grain maize are produced each year worldwide. However, sweetcorn is increasingly being grown, even in grain maize production areas such as Brazil, Russia and Ukraine.

The EU is the world's second largest producer of sweetcorn, after the USA and ahead of Thailand. While the first two are more oriented towards self-consumption or local trade, Thailand is much more oriented towards the world market. Thailand exported 228,000 tonnes of canned sweetcorn in 2018, making it by far the world's largest exporter of this processed product.

The trade agreement signed in 2019 between the EU and Mercosur (the Southern Common Market, the economic community of several South American countries) introduces quotas on products whose import into Europe is exempted from customs duties. The quota for imports of sweetcorn is limited to 1,000 tonnes.

With the European import market representing around 100,000 tonnes in 2019, ACP countries can benefit. Moreover, the European market still has untapped potential: for comparison, French consumption of sweetcorn is less than 1 kg per capita per year, compared to 10–12 kg per capita per year in the USA.

Figure 57: Evolution of the average CIF import price of sweetcorn to the EU28 from non-EU28 countries (in EUR/kg). Average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



Since 2015, Senegal has established itself as the leading African supplier of sweetcorn to Europe, overtaking Morocco, whose production has stabilised. In 2019, 93% of sweetcorn (fresh and processed) to the EU from ACP countries originated in Senegal, with a volume of 24,000 tonnes and a value of 19 million euros. In 2015, the figures were around 12,000 tonnes and 12 million euros.

Despite the increase in European demand for sweetcorn, average import prices have remained stable at around 0.95 euro per kg between 2009 and 2019.



2.9. Mango



Figure 58: Evolution of European imports of mangoes from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

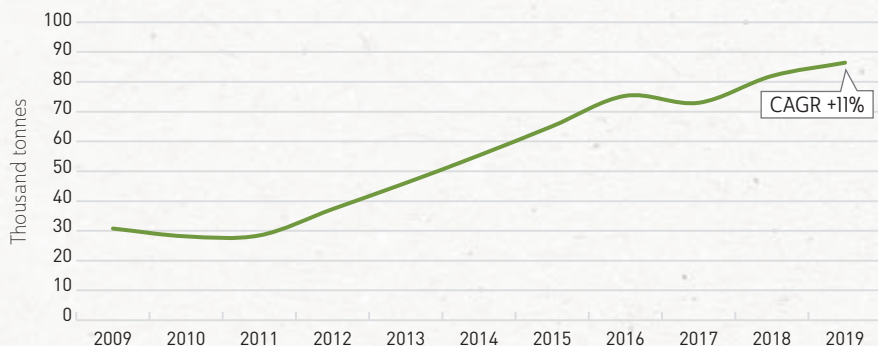


Figure 59: Evolution of European mango imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP according to Eurostat)

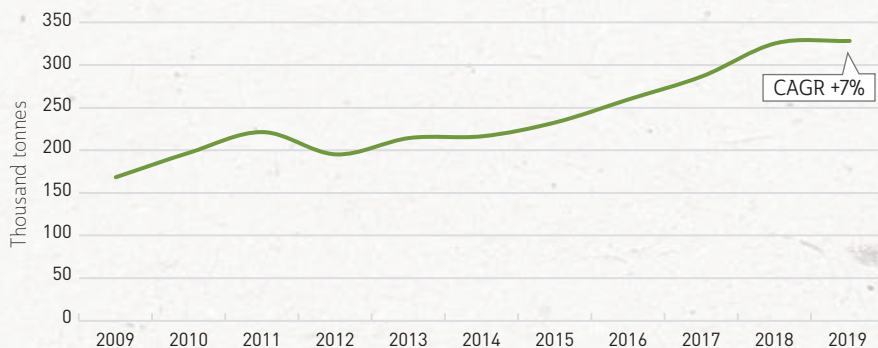


Figure 60: Share of exporting countries in EU28 imports of mangoes of ACP origin, in tonnes, in 2009 (total: 30,780 tonnes) and 2019 (total: 86,422 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

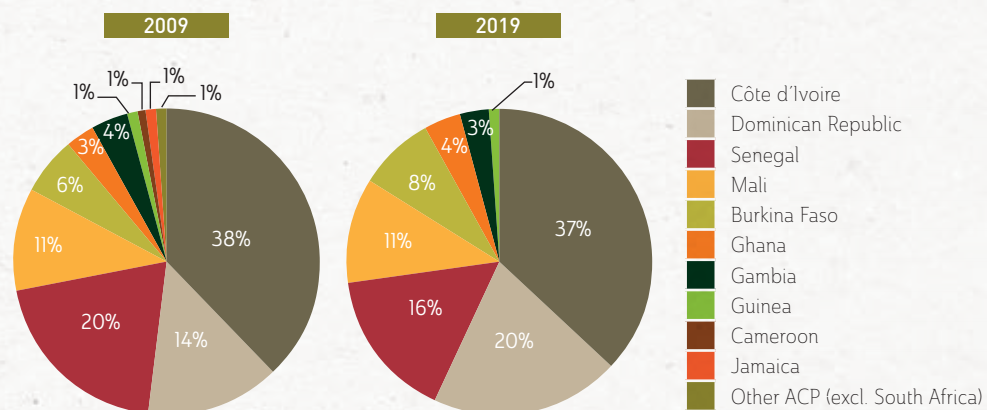
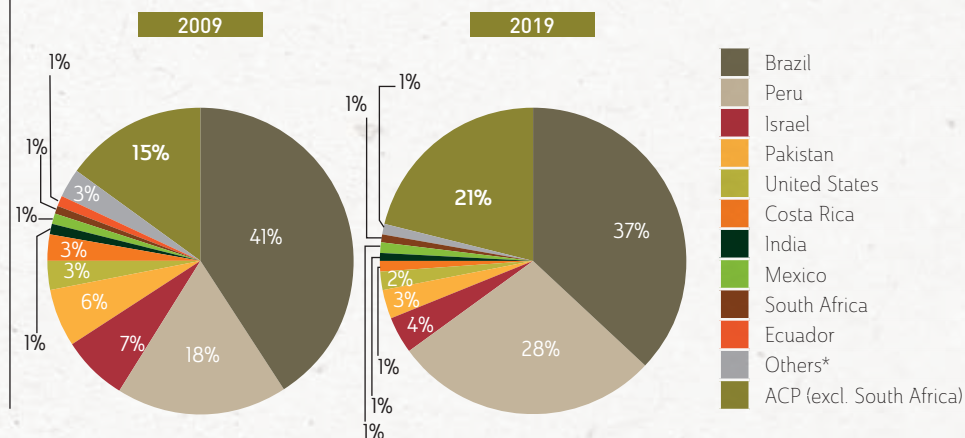


Figure 61: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 mango imports, in tonnes, in 2009 (total: 199,184 tonnes) and 2019 (total: 414,626 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





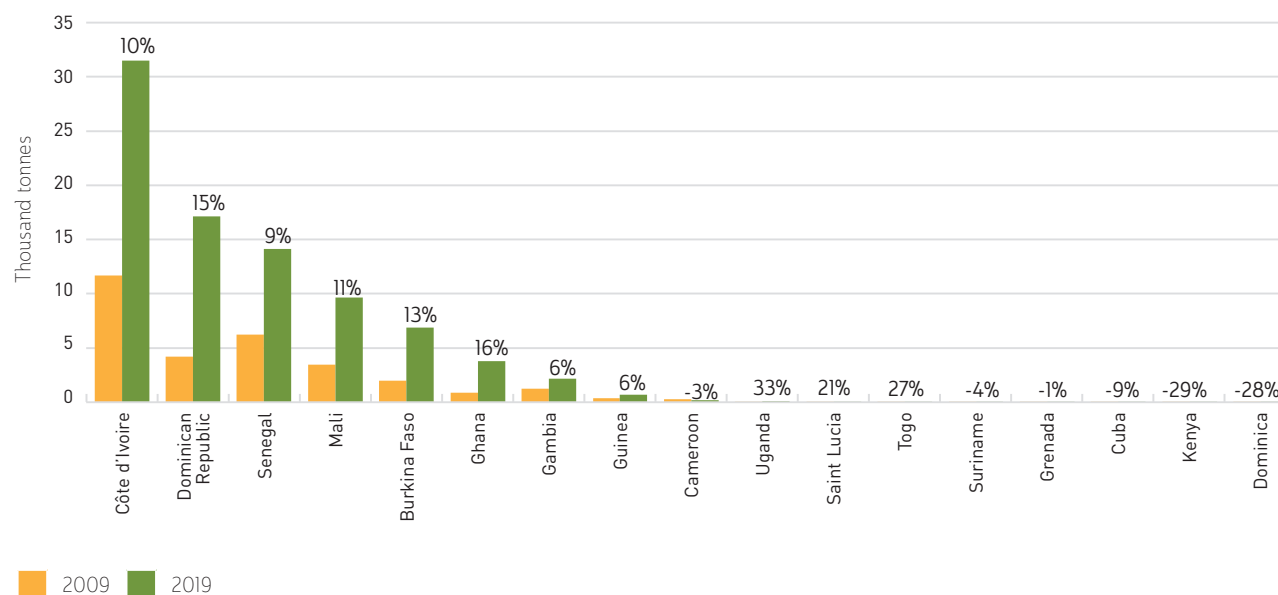
After 5 years of strong growth (on average 9% per year between 2014 and 2018), mango imports into the EU28 seem to have **stabilised** in 2018–19. After annual increases of around 30,000 tonnes and exceeding the 400,000 tonne mark in 2018, volumes increased by only 7,000 tonnes in 2019 (2% growth).

Despite the relative stabilisation in 2017 compared to 2016, **imports of mangoes into the EU from ACP countries continued to grow strongly**. In contrast to imports from other countries, imports from ACP countries continued to grow in 2019 (+5%). Between 2013 and 2019, mango imports into the EU from ACP countries increased from 46,000 tonnes to 86,000 tonnes. Over the same period, the value of exports from ACP countries **more than doubled** (from 66 million euros in 2013 to 145 million euros in 2019). In addition to the Dominican Republic, all the West African exporting countries have fuelled the strong growth of ACP mango exports to the EU28, and the growing share of ACP countries in the total non-European mango imports (from 15% in 2009 to 21% in 2019).

This development is long-term: the volume of mango imports has multiplied fourfold over the past 20 years. Europe represents the second largest market for mango exporters after the USA, and still has good prospects.

Germany has the largest number of European mango consumers. The country's mango consumption is estimated at 90,000 tonnes. Most mangoes sold on the German market are transported via the Netherlands. Using Dutch companies to reach the German market is a strategic choice: these companies are used to dealing with the high German standards, particularly those observed by the large retailers. The German market requires, for example, that

Figure 62: Comparison of mango exports in 2009 with those in 2019 for the main ACP mango exporters (excluding South Africa) to the EU28 (in volumes, CAGR 2009–19) [Source: COLEACP from Eurostat]



these fruits contain a maximum of 30–50% of the EU-permitted pesticide residue level. The Dutch companies are therefore able to quickly determine the suitability of the products for the country's standards and can, if necessary, redirect them to other countries with less stringent standards.

France has the third highest number of mango consumers in Europe and presents great opportunities for West African exporters, with 70,000 tonnes imported in 2019 (taking into account imports from European countries). West Africa is a privileged exporter of mangoes because of its geographical proximity and the quality of its products. Côte d'Ivoire alone was able to export

8,900 tonnes of mangoes to France in 2019. The most popular mango varieties are Kent and Keitt, as in other countries, and also Amélie mangoes from Burkina Faso. There are significant growth prospects for **Côte d'Ivoire, Senegal, Mali** and **Burkina Faso**, despite two mitigating factors. On one hand, Peru has recently considerably strengthened its market position: the volumes of mangoes imported into France from Peru increased by 14% between 2018 and 2019. On the other hand, France shows a clear preference for locally produced fruit, which implies a significant recourse to **Spain** for mango imports (15,000 tonnes imported in 2020). Due to the changing seasonality



of production, the overall import window for West African mangoes has been reduced but still offers good development prospects due to increasing consumption in Europe.

European supply is mainly based on four origins. The quantities exported from Côte d'Ivoire and Spain, respectively, amount to around 30,000 tonnes. However, the majority of imports come from the two world leaders in mango: Brazil and Peru.

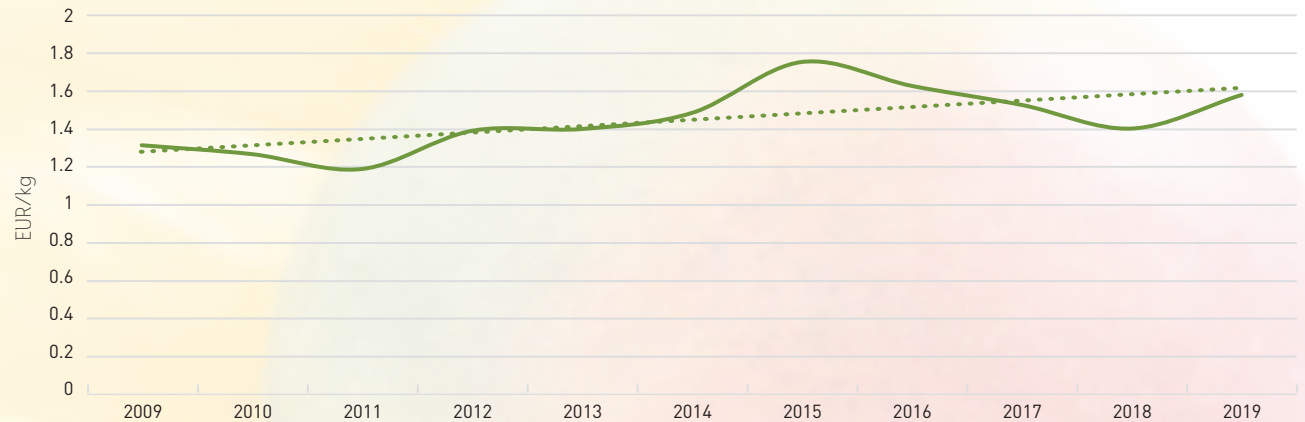
Brazil exported 155,500 tonnes of mangoes on the European market in 2019. The country has made adjustments and restructured the sector to adapt its production to world demand. The volume of the once ubiquitous Tommy Atkins variety has dropped significantly in favour of a diversified offer with the Keitt and Palmer varieties and, to a lesser extent, Kent.

Peru, meanwhile, exported 116,000 tonnes of mangoes to Europe during 2019. The country's growth in this market has been meteoric over the past few decades. While the last season showed a drop in export volumes, the growth in value has continued. The sector does not yet seem to have reached its maximum production potential.

The growing European demand for mango is accompanied by an increase in the average import price between 2009 and 2019. After a slight decrease between 2015 and 2018, the average import price has started to rise again. Taking inflation into account, the price increase between 2009 and 2019 can be estimated at around 0.27 euro per kg (20%).

The current trend in the European mango market is **ready-to-eat** – ripe mangoes that are ready to be eaten without having to ripen them any longer. Mango also comes in a variety of forms that are as

Figure 63: Evolution of the average CIF import price of mango (all varieties) to the EU28 from non-EU28 countries (in EUR/kg). Average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



popular with Europeans as the fruit itself. These include chopped mango, which can be eaten fresh, dried or frozen, and mango pulp and juice. These **processed** products are an effective way of developing mango consumption in Europe.

The difficulties experienced by ACP countries in gaining a foothold in this market against the South American giants, when they are in competition due to similar harvest seasons, can be explained by the great differences in **product quality** that persist. Peru's industrial orchards contrast with the small, fragmented orchards of Africa. Peru is thus able to develop better quality control of mangoes, whereas according to importers the fruit from West Africa (particularly Côte d'Ivoire and Mali) still shows too much quality variation in terms of colour and maturity.

But the market does recognise the results of **efforts made by African suppliers** and mango producers, who have embarked on a policy of building packaging and storage centres, allowing access to international markets. Close attention is also being paid to phytosanitary quality management, right down to the small producers. As a result, **Mali's mango exports have tripled in ten years**. In 2019, Europe imported 9,600 tonnes of Malian mangoes out of the 18,000 tonnes exported by Mali, the majority of which are destined for neighbouring countries such as Burkina Faso, Morocco and Gabon. But there are still obstacles to overcome to reach full export capacity. The mango sector in ACP countries, particularly in West Africa, has been subject to recurrent phytosanitary problems in recent years, which have come up against evolving and increasingly restrictive EU legislation,



particularly the new EU provisions on fruit flies. However, the balance sheet for the 2020 campaign was ultimately very positive, even in the context of Covid-19, thanks in particular to the mobilisation of all private and public stakeholders. COLEACP played a supporting role, in particular with the competent authorities, and contributed to the preparation of dossiers required by the European Commission in the context of the new regulations³⁵.

Demand for **mango purée** is growing in the EU market. It is used not only by the fruit juice industry, but also for ice cream and baby food. The European market represents 40% of world imports, and growth projections are interesting: between 3 and 5% per year for the next five years³⁶. There are thus opportunities for ACP countries in this market, particularly for southern Africa, Egypt and Ethiopia, which are gaining market share in Europe, although India remains by far the main supplier, accounting for over 70% of European imports.

Finally, the **dried mango** market is also expanding rapidly: this product is increasingly in demand because it is used in the recipes of cereals and energy bars. This is a range in which ACP countries could also specialise. There is competition from Asian countries such as Thailand, the Philippines and Pakistan, but West African producers such as Ghana, Burkina Faso and Mali have managed to join this market. The exquisite taste, geographical proximity and low production costs are competitive advantages for these West African exporters to the EU.



³⁵ COLEACP – West African mango on the European market: towards a very positive 2020 (2020).

³⁶ CBI – The European market potential for mango puree (2021).

2.10. Cassava



Figure 64: Evolution of European cassava imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

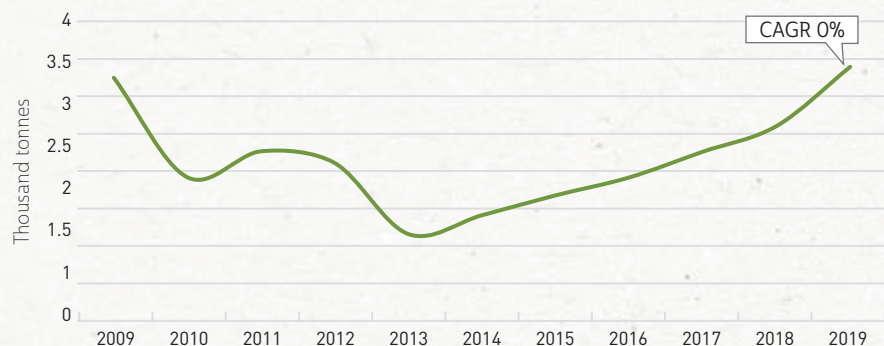


Figure 65: Evolution of European cassava imports from the rest of the world (non-ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

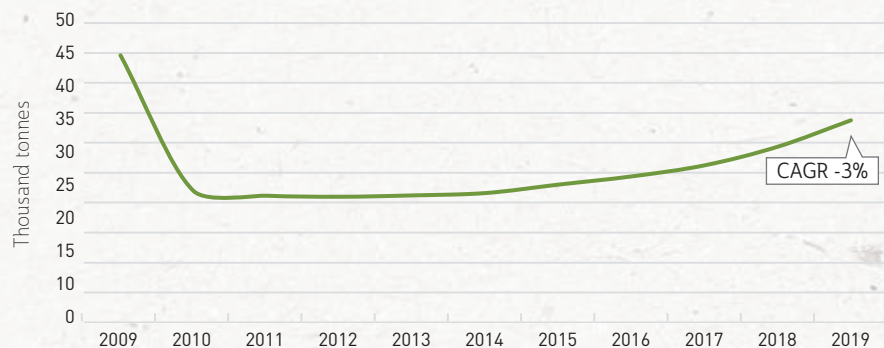


Figure 66: Share of exporting countries in EU28 imports of cassava of ACP origin, in tonnes, in 2009 (total: 3,246 tonnes) and 2019 (total: 3,392 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

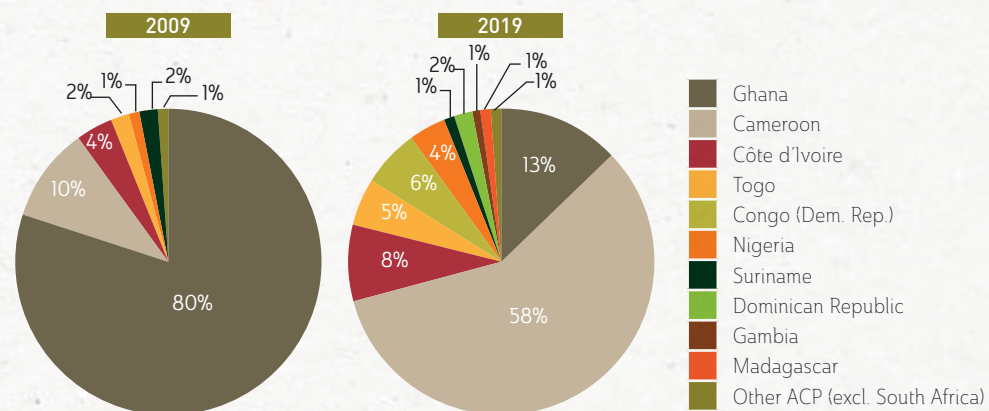
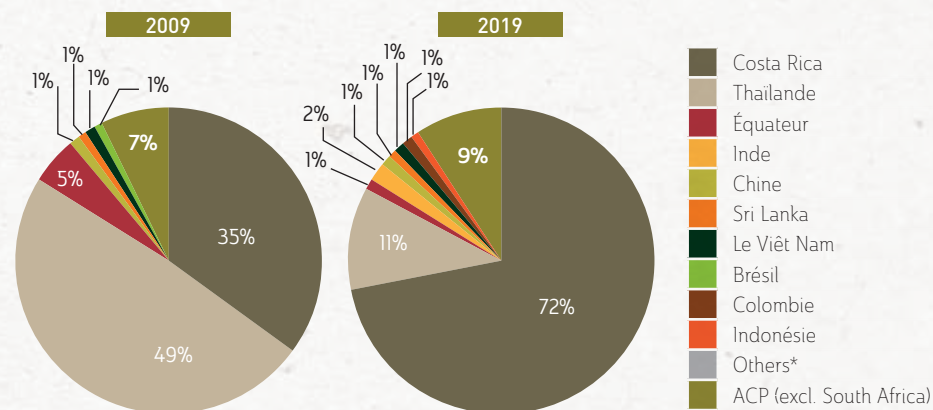


Figure 67: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 cassava imports, in tonnes, in 2009 (total: 47.865 tonnes) and 2019 (total: 37.151 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





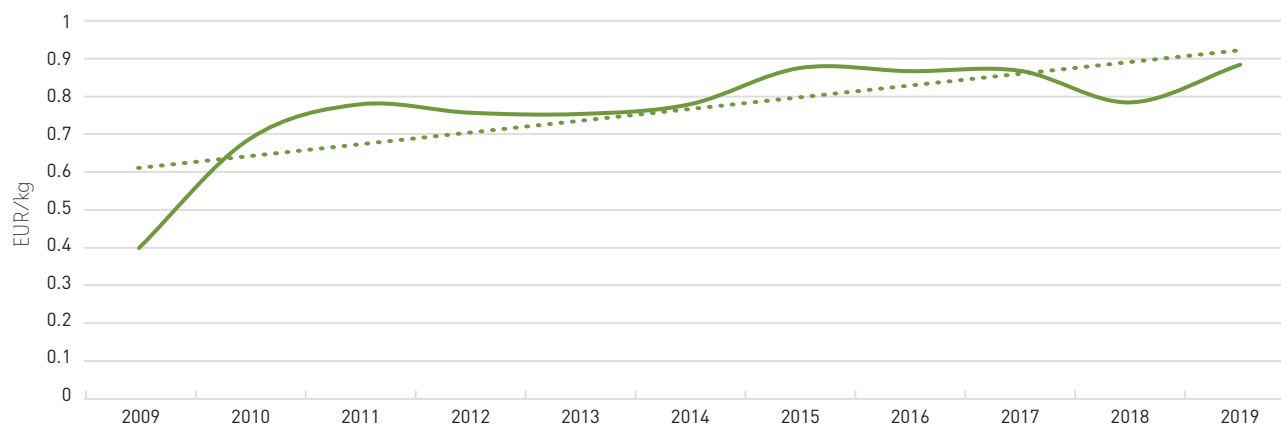
The market for cassava imports has been **increasing steadily in recent years**. In 2019, the EU imported 37,000 tonnes of cassava, an increase of 61% since 2012. Costa Rica continues to dominate the market, supplying over 70% of cassava exports to Europe. Other suppliers, including some ACP countries, are numerous and export small volumes.

This growing demand is accompanied by a sharp **increase in the average European import price** of cassava. Its average import price has almost tripled from around 0.35 euro per kg in 2009 to more than 0.9 euro per kg in 2019. Taking inflation into account, the price increase is equivalent to 122% between 2009 and 2019. Wholesale prices in 2020 were between 1.30 euros and 1.80 euros per kg in France.

This product is mainly consumed by ethnic populations, especially Africans, in Europe. However, a part of the clientele also represents individuals looking for new flavours.

In this market, the opportunities available to ACP countries are more related to **industrial uses** of cassava: since the 1980s, in addition to its role in human consumption, cassava is increasingly used as animal feed and as a raw material for industries (textiles, pharmaceuticals, packaging, etc.).

Figure 68: Evolution of the average CIF import price of cassava to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The recent substitution of cassava for wheat in bakery and pastry products in Togo, decided by the country in order to guarantee its food security, illustrates possible new areas for the ACP sector with the export of cassava in **processed form, as flour**. Several industrial projects for processing

cassava into flour are being studied in sub-Saharan Africa and could constitute a new African offer in the years to come, particularly in the gluten-free market.

2.11. Melon



Figure 69: Evolution of European imports of melon from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

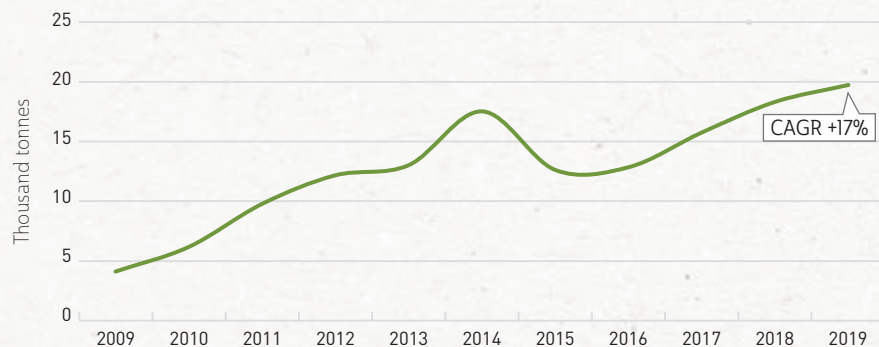


Figure 70: Evolution of European imports of melon from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

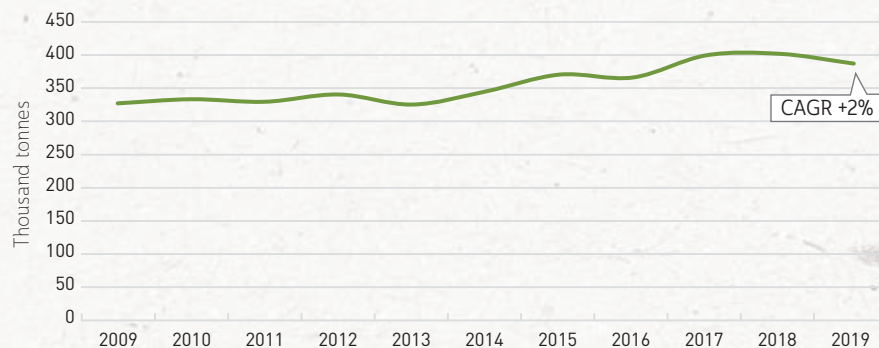


Figure 71: Share of exporting countries in EU28 imports of melon of ACP origin, in tonnes, in 2009 (total: 4,114 tonnes) and 2019 (total: 19,733 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

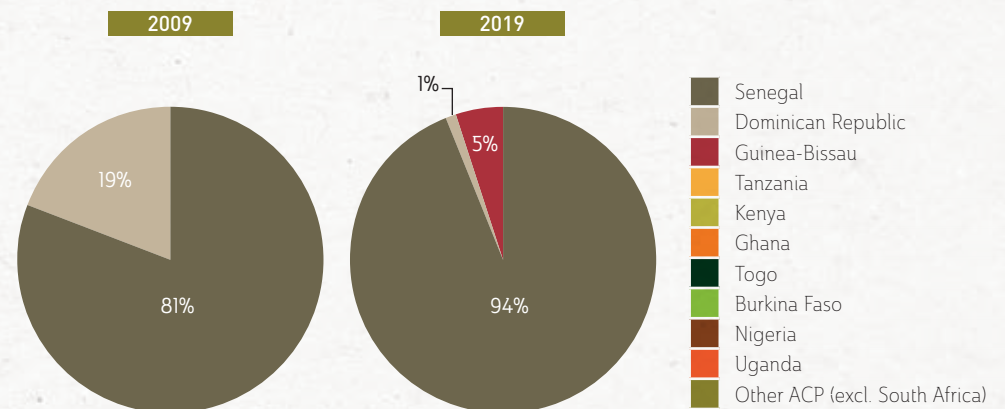
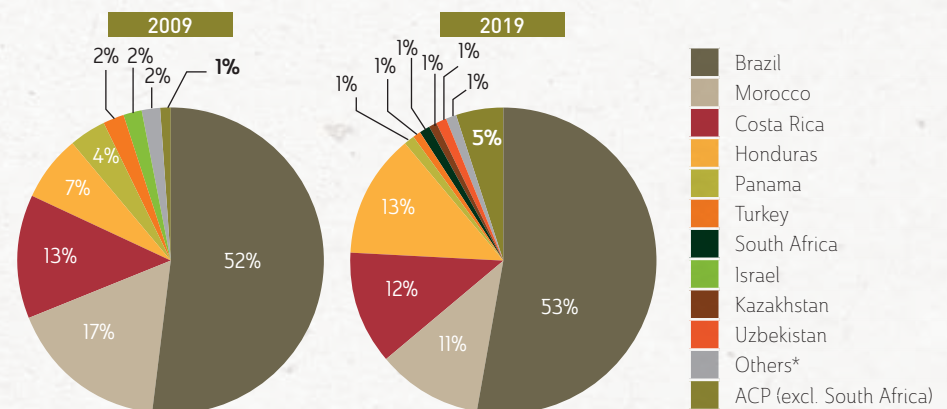


Figure 72: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 melon imports, in tonnes, in 2009 (total: 331,326 tonnes) and 2019 (total: 406,911 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





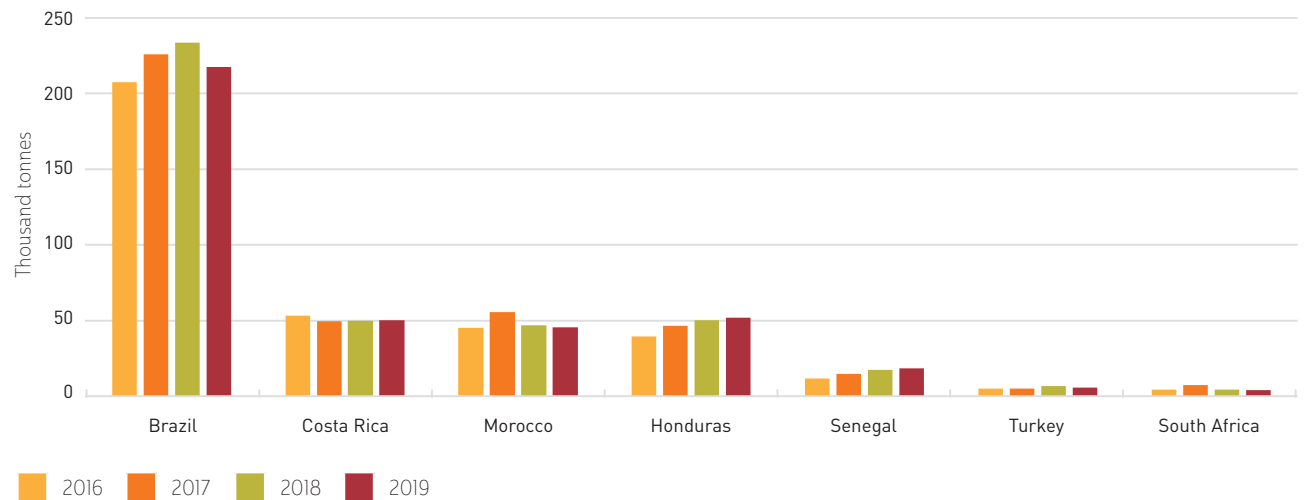
The EU is a major producer of melon, with annual production of about 2.3 million tonnes. The main European suppliers are **Spain, Italy and France**, where harvest takes place during the summer. However, the extension of the seasonality of melon consumption has led to growing demand for melons imported from tropical regions.

European imports amounted to 407,000 tonnes in 2019, down by 3% compared to the record year of 2018. They represent between 10 and 15% of the melons consumed in Europe³⁷, mainly from Brazil, which has become the leader in out-of-season melon production for Europe. The three biggest importers of melon in Europe are **France, Germany and the UK**.

However, the 2018 season was disappointing for Brazil, which did not sell as much product on the European market as in previous years. Exports did not exceed 86,000 tonnes between August and November 2018, a 26% drop compared to 2017³⁸.

Honduras continues to develop its production, but at a rate still lower than that desired by producers. Other Latin American producers, such as Costa Rica and Panama, are finding it increasingly difficult to maintain their position on the European market.

Figure 73: Exports of melon to Europe (thousand tonnes) (Source: COLEACP from Eurostat)



37 CBI – Exporting fresh melons to Europe (2018)

38 FruiTrop – Melon de contre-saison. Toujours jouer des coudes ! (2019).

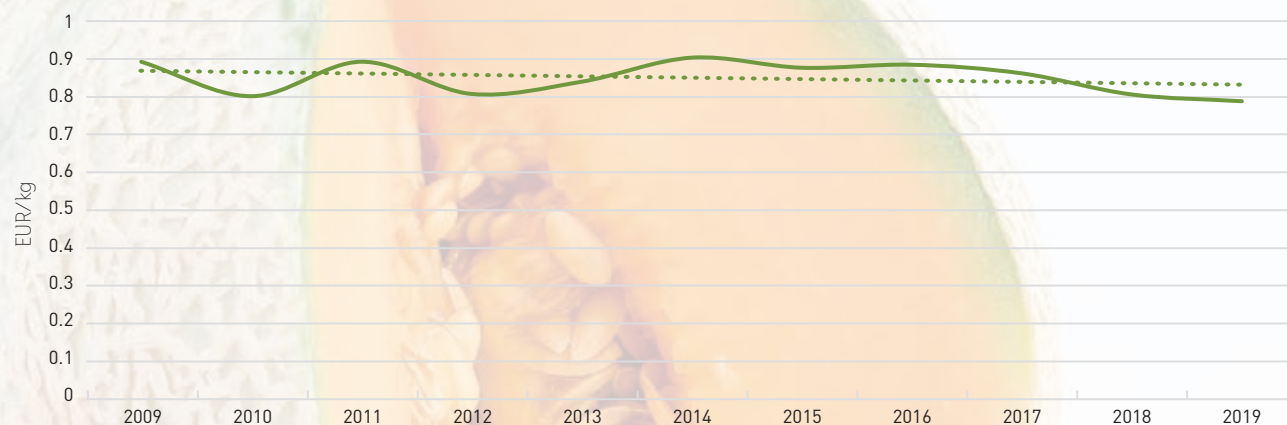


Of the ACP countries, **Senegal** is doing well and is increasingly becoming a major supplier to Europe, to the detriment of Morocco, which is seeing its European market share fall (-18% in 2019 compared to 2017). In this context, some economies are abandoning melon to focus on watermelon, such as Morocco and Spain, although the outlets are limited with Latin American countries dominating the market.

The strong competition between melon producers to satisfy the growing European demand resulted in a relatively stable average import price between 2009 and 2019. During this period, the average import price fluctuated by ± 0.1 euro per kg. Taking inflation into account, this represents a slight decrease in price at constant euro.

The sale price of imported melon was generally between 1.40 euros and 2.80 euros per kg at the wholesale level in France in 2020.

Figure 74: Evolution of the average CIF import price of melon to the EU28 from non-EU28 countries (in EUR/kg). Average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



2.12. Coconut



Figure 75: Evolution of European coconut imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

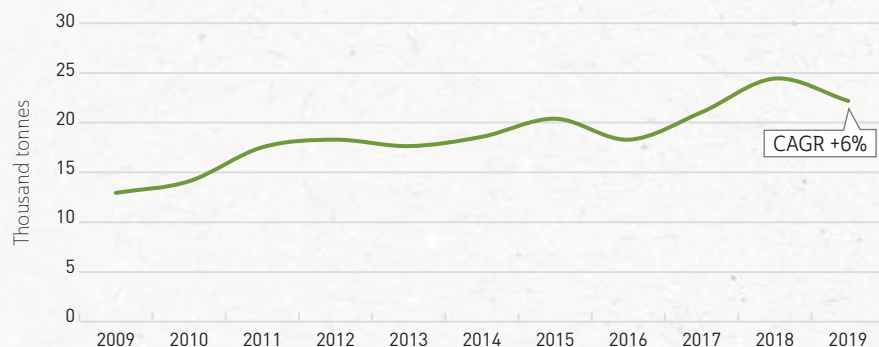


Figure 76: Evolution of European coconut imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

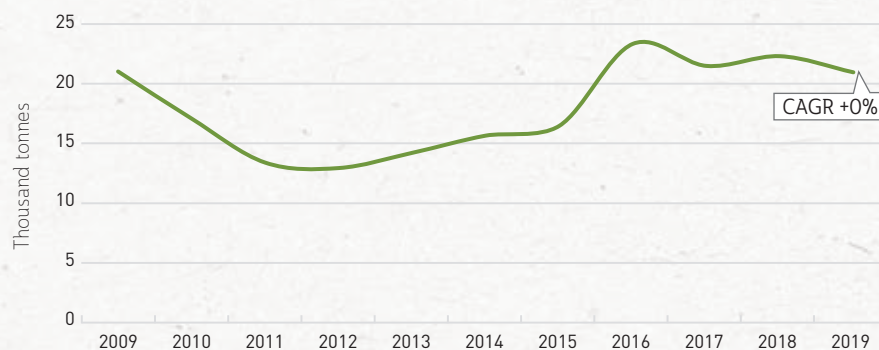


Figure 77: Share of exporting countries in EU28 imports of ACP coconuts, in tonnes, in 2009 (total: 12,946 tonnes) and 2019 (total: 22,181 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

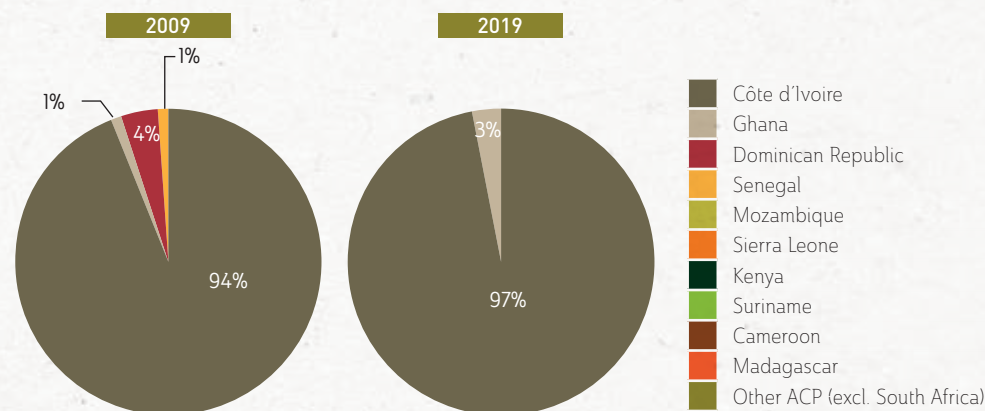
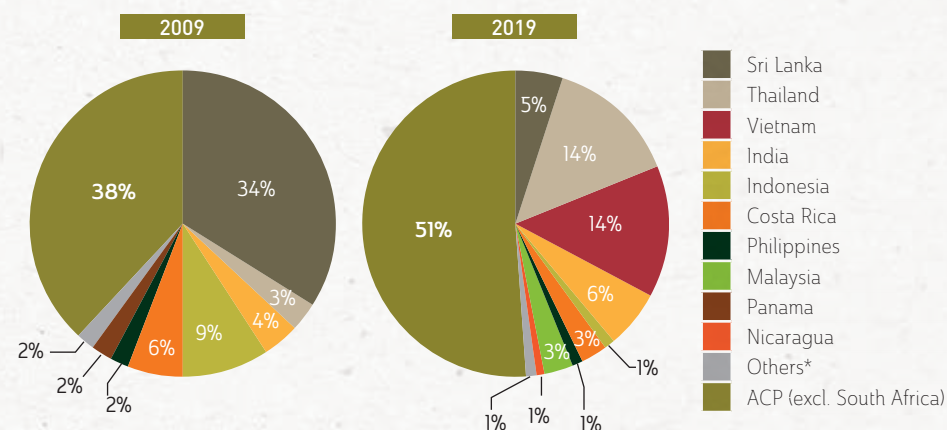


Figure 78: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 coconut imports, in tonnes, in 2009 (total: 33.975 tonnes) and 2019 (total: 43.140 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





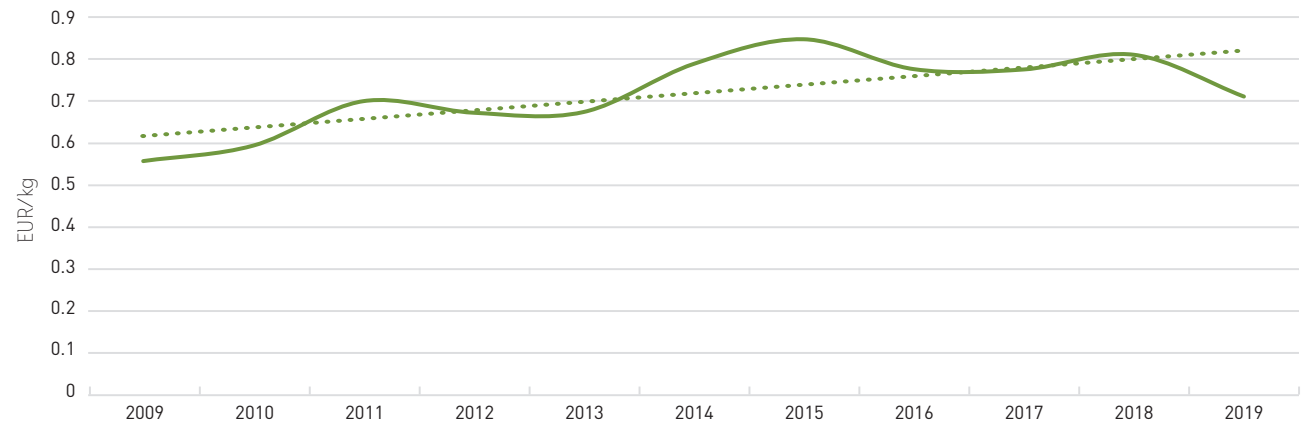
Although global coconut **production has stabilised** over the past decade (over the period 2007–17 remaining between 58 million tonnes and 61 million tonnes), global **demand continues to grow**. There is thus a significant potential market for fresh and processed coconuts.

In Europe, coconuts are increasingly being consumed. Imports have increased by 32% over the past five years to reach a volume of around 43,000 tonnes in 2019. The Italian and British markets are the biggest consumers.

The increase in European demand for coconuts has resulted in a significant increase in the average import price (around + 0.35 euro per kg) between 2009 and 2019. However, this increase is irregular and has been declining since 2018. If inflation is taken into account, the increase is around 0.15 euro per kg (28%). In 2020, wholesale prices in France were between 0.65 euro and 1.20 euros per piece.

In their fresh state, coconuts are not very popular: it is estimated that an average European household consumes one fruit every four years. The main obstacle to consumption is obviously a practical one: consumers do not know how to open it and therefore prefer not to buy it. Coconut is an exotic fruit that is not much valued by distributors, even though it conveys an exotic image. **Côte d'Ivoire** has positioned itself as the main supplier of fresh coconuts to the EU. Other ACP countries, such as **Nigeria**, are currently undertaking reforms to boost their production.

Figure 79: Evolution of the average CIF import price of coconut to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The development potential of the **processed coconut** sector seems to be higher than for fresh coconut. The **Philippines** and **Indonesia** are the world's largest producers and dominate the desiccated coconut and oil markets, with the distance to Europe making them less competitive in the marketing of fresh coconuts.

In recent years, the demand for coconut water, especially for use in the fruit juice industry, has increased. Tetra Pak coconut water has been very successful in the USA and in English-speaking European countries. Recommended by the Food

and Agriculture Organization of the United Nations (FAO), this drink made from green coconut water is valued for its health benefits (low in carbohydrates and fats, rich in minerals), and particularly for its benefits in rehydrating the body.

Organic coconuts are still a small niche market, but demand is growing, especially in German-speaking and Scandinavian countries.

2.13. Orange



Figure 80: Evolution of European imports of oranges from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

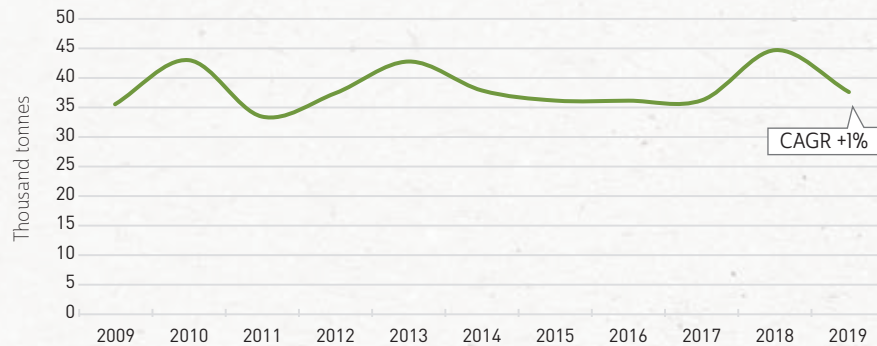


Figure 81: Evolution of European orange imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

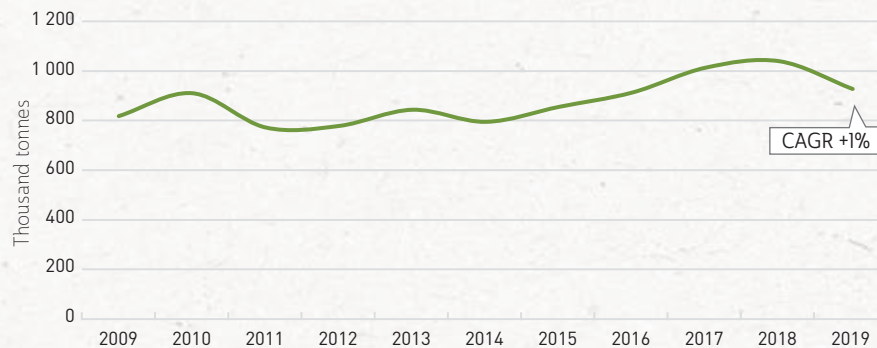


Figure 82: Share of exporting countries in EU28 imports of oranges of ACP origin, in tonnes, in 2009 (total: 35,544 tonnes) and 2019 (total: 37,611 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

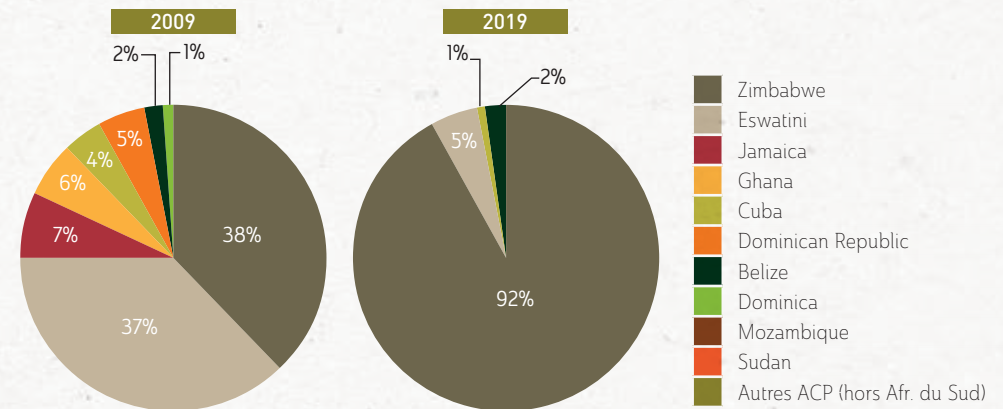
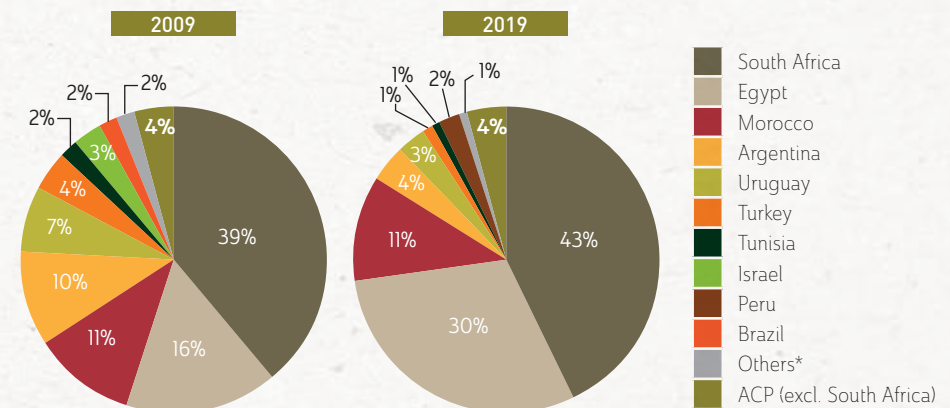


Figure 83: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 orange imports, in tonnes, in 2009 (total: 853,610 tonnes) and 2019 (total: 964,930 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





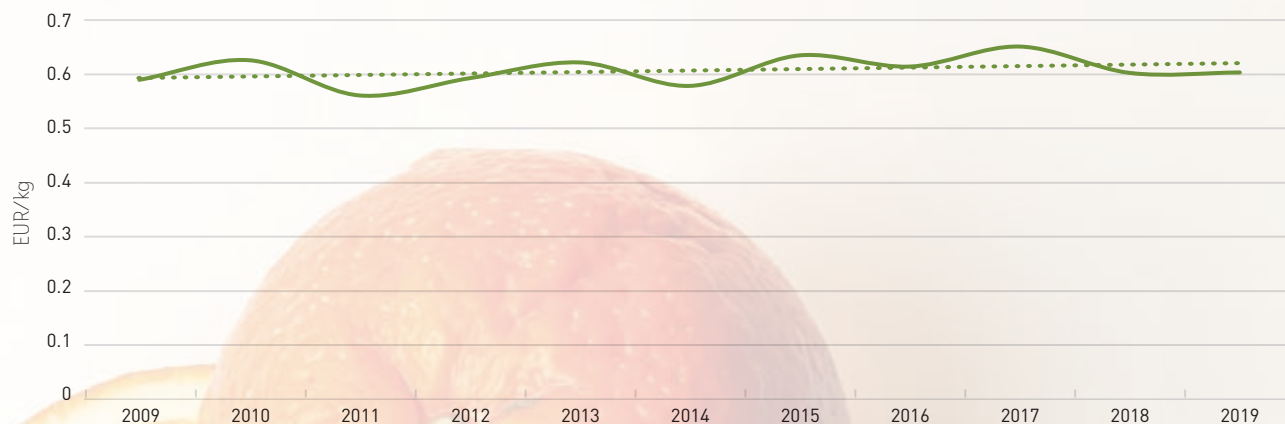
South Africa is the main supplier of oranges to the non-EU European market. However, 2019 was a disappointing year for the country as orange exports fell by 10% compared to 2018, when they were expected to be stable.

The volume of oranges sold on the **European market** has remained at around 2.6 million tonnes in recent years (winter and summer seasons combined)³⁹. Spain, which controls almost two-thirds of the European market, has completely renewed its range by introducing high-quality late cultivars of table oranges.

The **stable** volume of oranges marketed in the EU is accompanied by a European average price that was also very stable between 2009 and 2019.

The growth of the **orange juice** market segment via juice machines appears to be a key trend in the coming years. This trend is likely to continue to benefit **Egypt**, the only producer able to guarantee the very low prices sought by retailers looking for the most competitive cost per litre squeezed. European imports of oranges from Egypt have increased by 197,000 tonnes in four years to reach 285,000 tonnes in 2019. The country is on its way to becoming the world's largest exporter of oranges, ahead of Spain. Exports are expected to continue to grow as the state funds programmes to reclaim 210,000 ha of desert for agricultural use.

Figure 84: Evolution of the average import price of oranges into the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



³⁹ FruiTrop – Dossier agrumes (2018).

2.14. Papaya



Figure 85: Evolution of European papaya imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

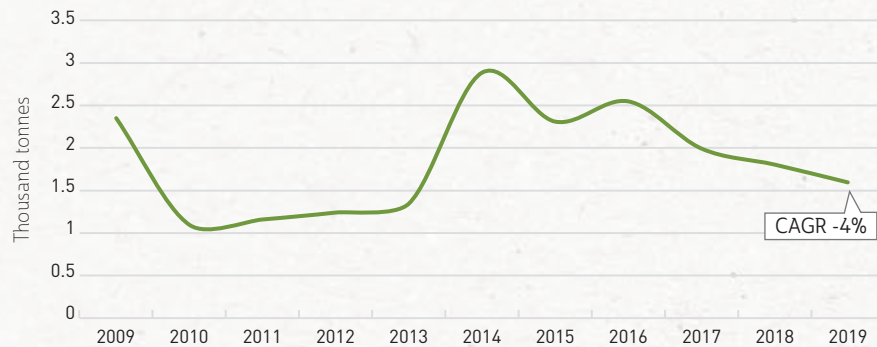


Figure 86: Evolution of European papaya imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

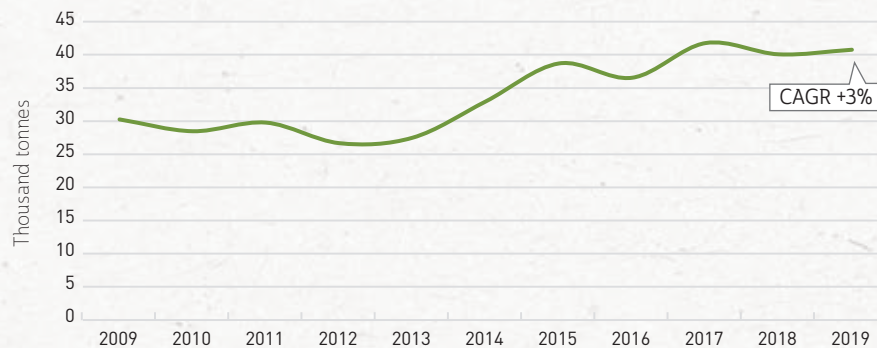


Figure 87: Share of exporting countries in EU28 papaya imports of ACP origin, in tonnes, in 2009 (total: 2,350 tonnes) and 2019 (total: 1,596 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

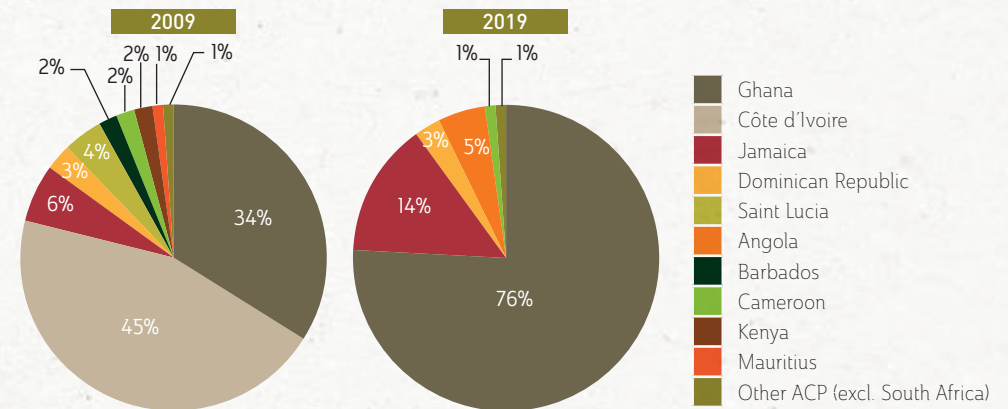
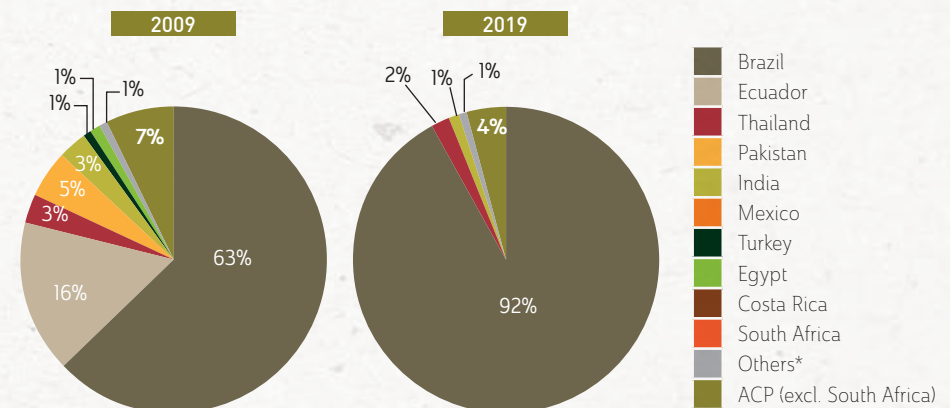


Figure 88: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 papaya imports, in tonnes, in 2009 (total: 32,608 tonnes) and 2019 (total: 42,360 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)



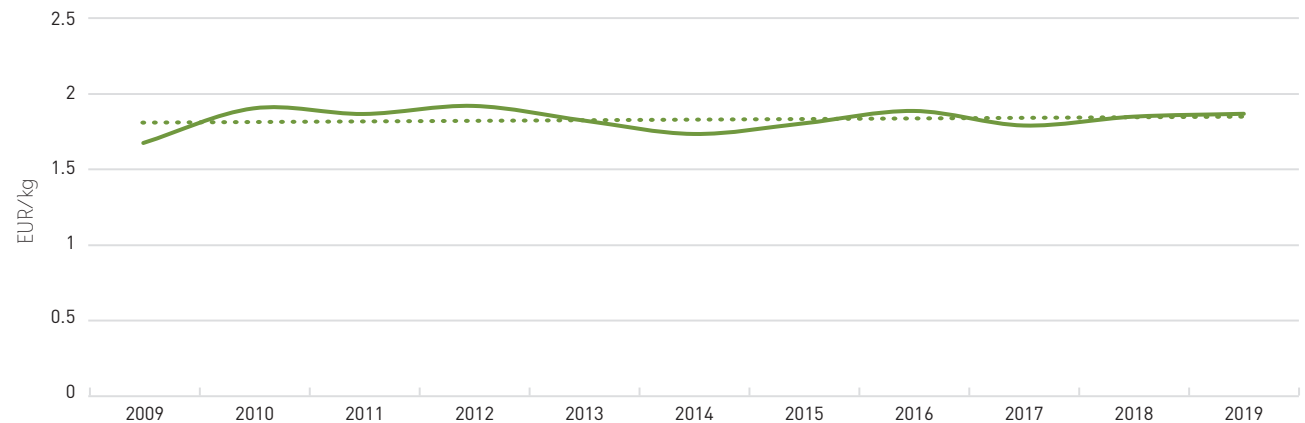


After a long uncertain period, papaya consumption has been **booming on the European market** since 2013. Despite a slowdown in 2016, papaya has become one of the most popular exotic fruits on the European market. In 2019, European imports amounted to 42,360 tonnes with a value of 83 million euros. The strongest growth in consumption was in Germany and the Netherlands.

Brazil clearly dominates the market with 26% of world production, ahead of **Nigeria** and **Mexico**. Europe, the second largest market for papaya exports after the USA, is almost exclusively supplied by Brazilian exports, which accounted for 75 million euros in 2019, while the other main competitors accounted for only 8 million euros. This dynamic European market could also offer new opportunities for African exporters. Papaya is grown in most sub-Saharan African countries, and exports to Europe could be competitive with those from Brazil due to geographical proximity. This is a key advantage, particularly for the fresh and ready-to-eat markets.

This trend of **increasing European demand** for papaya is due to efforts of the sector on the quality of the fruit, and also to the development of new ranges, notably ready-to-eat. Papaya is increasingly becoming an alternative to other exotic fruits that are more common on European shelves. It also has a good nutritional reputation, being low in calories and less sweet than mango.

Figure 89: Evolution of the average CIF import price of papaya to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The Formosa (large), Golden and Solo/Sunrise (small) varieties make up the bulk of the market. However, consumers are increasingly interested in smaller sizes that are easier to transport and prepare, hence the recent boom in "baby papaya".

The industry's efforts to meet growing European demand are reflected in an average **import price**

increase of 0.5 euro per kg between 2009 and 2019. If inflation is taken into account, the increase is around 0.19 euro per kg (12%). This development shows some downward fluctuations in 2014 and 2017 but overall remains relatively stable.

Sale prices at wholesale level in France ranged from 3.50 euros to 5.20 euros per kg.

2.15. Watermelon



Figure 90: Evolution of European imports of watermelon from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

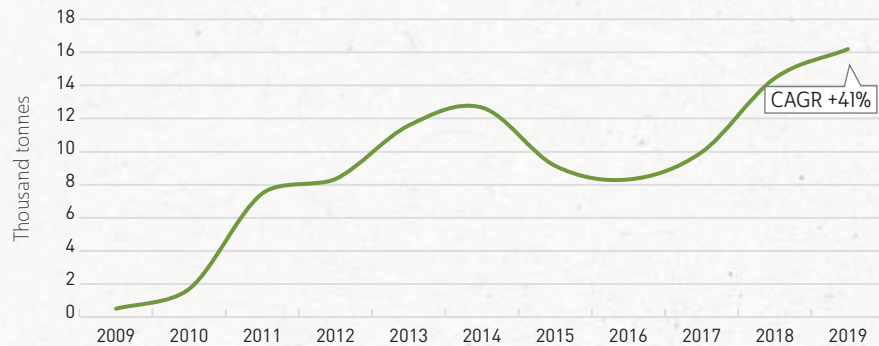


Figure 91: Evolution of European watermelon imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

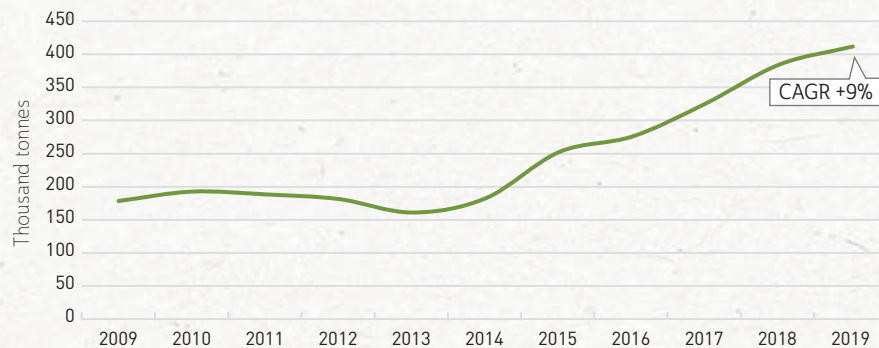


Figure 92: Share of exporting countries in EU28 imports of watermelon of ACP origin, in tonnes, in 2009 (total: 504 tonnes) and 2019 (total: 16,196 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

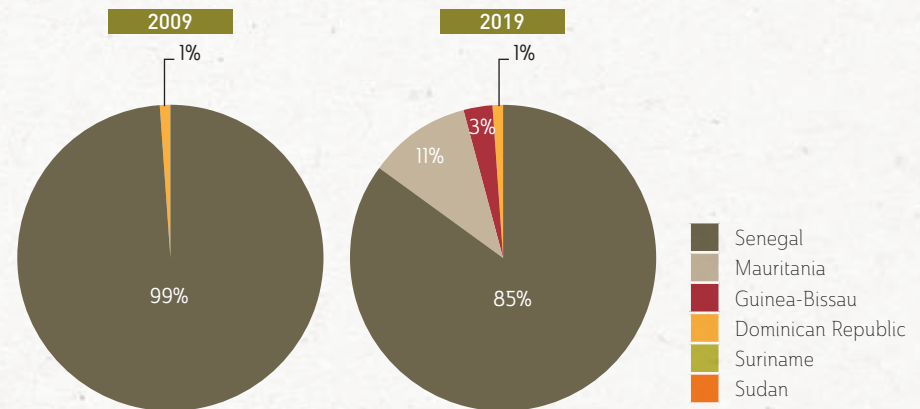
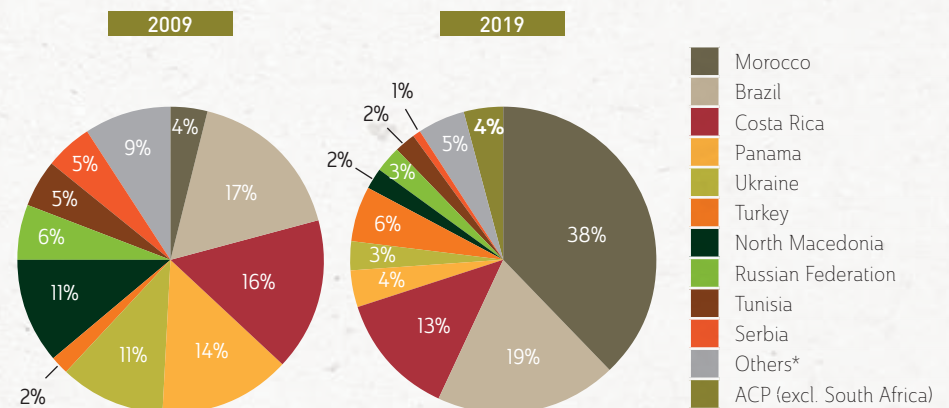


Figure 93: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 watermelon imports, in tonnes, in 2009 (total: 178,874 tonnes) and 2019 (total: 428,041 tonnes) Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





Europe is a major producer of watermelon (3,100,000 tonnes produced in 2018), particularly **Spain**, which continues to make progress in terms of production volume and quality. Spanish production in 2019 exceeded 580,000 tonnes⁴⁰. More and more agricultural land is being devoted to its cultivation, to the detriment of the melon, since 2015. Spain has also broadened its watermelon offer by developing new ranges, in particular seedless watermelon, which is now very popular in Europe. The country is continuing to innovate, offering a heart-shaped watermelon in the UK since 2020.

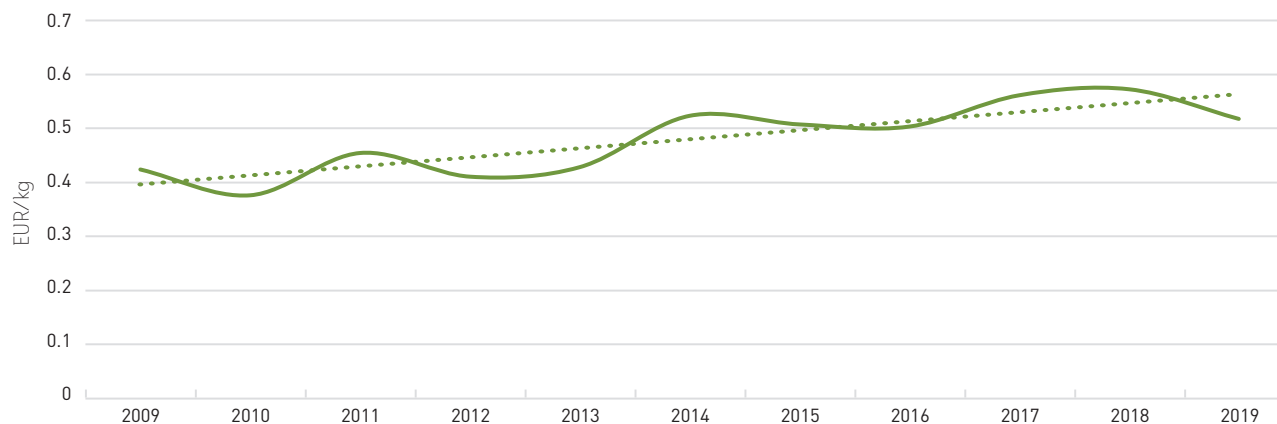
The main suppliers of watermelon are broadly the same as for melon. However, since 2013, **Morocco's** watermelon production has intensified, often at the expense of melon production. By adopting a double-peak production calendar in April and then July, Morocco is increasingly competing with Spain and establishing itself as the main non-EU supplier. In 2018, the volume of watermelon imported into the EU by Morocco was 24% higher than by Spain, even though the Moroccan unit price was higher⁴¹. Between 2013 and 2019, Moroccan watermelon grew by 1,800%, with Moroccan export volumes increasing 18-fold in just seven years. France and Spain import the majority of watermelons from Morocco as well as from north-west Africa, notably Tunisia and Senegal.

The Netherlands and the UK are mainly supplied by **Brazil**, whose watermelon market has recently developed strongly. The fruit is also becoming important for the **Costa Rican** economy.

⁴⁰ FruiTrop – Spanish watermelon (2019).

⁴¹ Agrimaroc – Pastèque : Le Maroc fait concurrence à l'Espagne (2018).

Figure 94: Evolution of the average CIF import price of watermelon to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The development is also marked for ACP countries. The share of watermelon imports from ACP countries has increased from less than 1% in 2009 to 5% in 2019. **Senegal**, in particular, has seen an exponential growth in its watermelon exports to the EU28, reaching 13,800 tonnes in 2019. In the past five years, **Mauritania** has joined the movement.

The value of watermelon imports into Europe was 234 million euros in 2019 compared to 73 million euros in 2013, an **increase of 218%** over the period. The volume imported exceeded 400,000 tonnes in 2019, and doubled between 2014 and 2019.

The increase in European demand and in imports of watermelon from non-European countries into the EU is accompanied by an unstable evolution of the average import price of watermelon into the EU, although it is showing an upward trend. The **average import price increased** with 0.1 euro per kg between 2009 and 2019, taking inflation into account, although temporary decreases were recorded in 2010, 2012/13, 2015/16, and 2019.

In 2020 in France, the sale price at wholesale level was between 1.40 euros and 2.20 euros per kg for organic watermelon; 1.25 euros to 2 euros per kg for mini-watermelon; and 0.5 euro to 1.70 euros per kg for conventional watermelon, imported or not.

2.16. Sweet potato



Figure 95: Evolution of European sweet potato imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

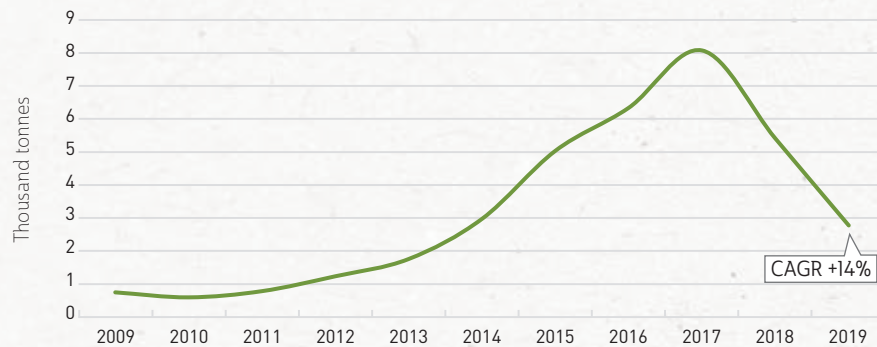


Figure 96: Evolution of European sweet potato imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

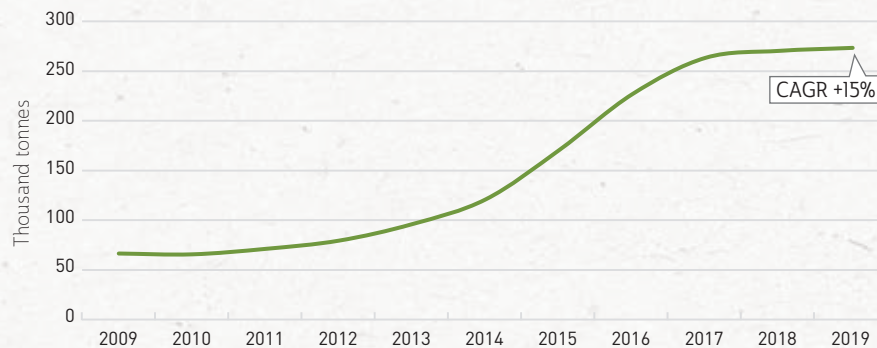


Figure 97: Share of exporting countries in EU28 imports of sweet potato of ACP origin, in tonnes, in 2009 (total: 749 tonnes) and 2019 (total: 2,775 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

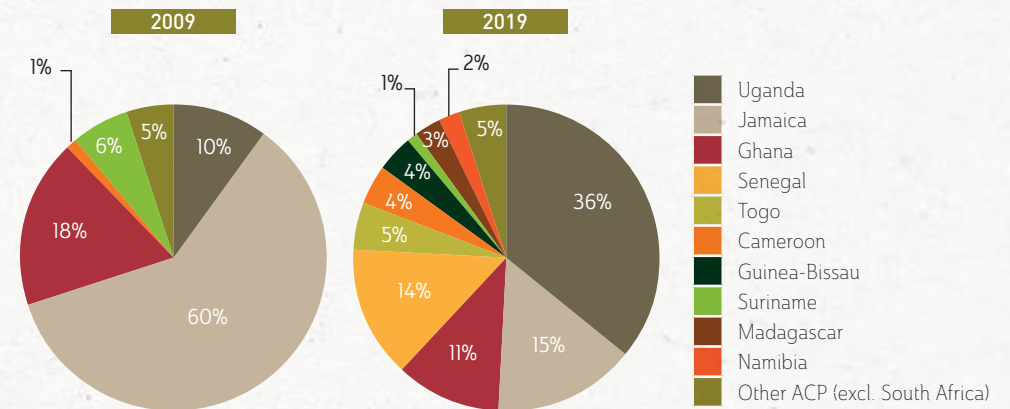
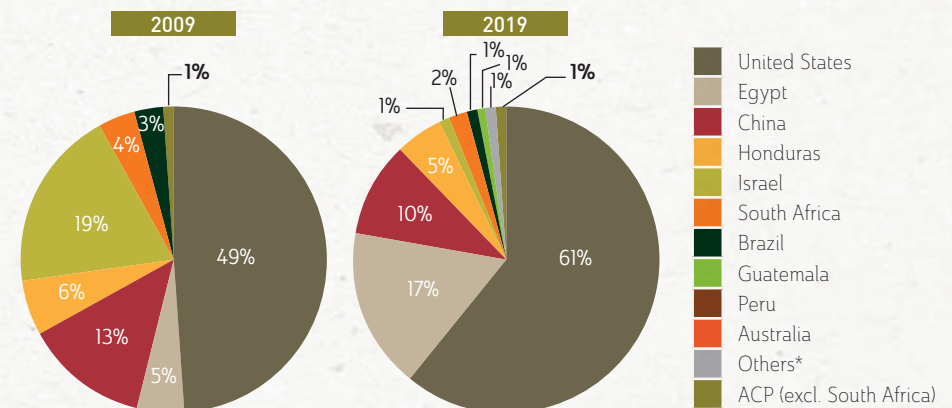


Figure 98: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 sweet potato imports, in tonnes, in 2009 (total: 67.174 tonnes) and 2019 (total: 276.086 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





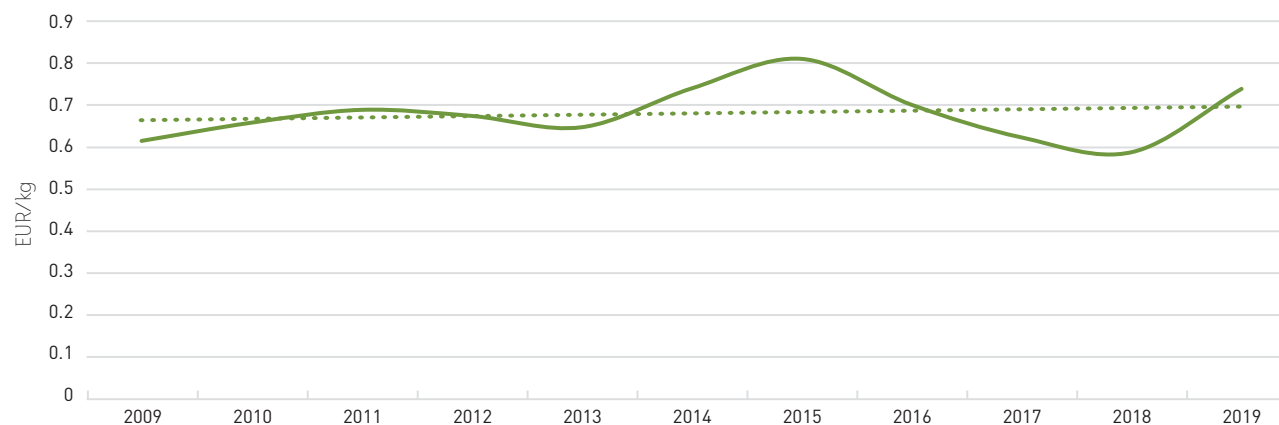
Sweet potato is the exotic vegetable that has become **most popular in the West** over the past five years: consumption continues to increase in the USA and Europe, its two main markets. After a decline in global production in the early 2000s, followed by stabilisation during the decade 2005–14, global production exceeded 100 million tonnes in 2017⁴² and is now on the rise again. Sweet potato is the fifth most important food crop in more than 10 developing countries after rice, wheat, maize and cassava. However, it remains one of the world's most underutilised food crops, so sweet potato production is still unable to meet all market demand.

While Europe consumes its own sweet potatoes, particularly from **Spain**, whose production has doubled over the period 2014–19⁴³, the **volume of imports also continues to rise**. In 2019, the EU imported 276,000 tonnes of sweet potatoes compared to 98,000 tonnes in 2013. The trend observed in the first edition of this COLEACP study (2017) has thus been confirmed.

The increase in European imports of sweet potatoes is accompanied by an **increase in the average import price** of this commodity. Although the trend is upwards, the average import price of sweet potatoes fluctuated between 2009 and 2019, including a significant drop between 2016 and 2018. The price has since risen again, in 2019 reaching almost the highest price of 2015. The increase over the period can be estimated at 0.12 euro per kg in constant euros (20%).

The sale price at wholesale level in France for the year 2020 was between 1.90 euros and 3.50 euros per kg of organic sweet potato; and between 1.10 euros and 2.50 euros per kg of conventional sweet potato.

Figure 99: Evolution of the average CIF import price of sweet potatoes to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



The **USA** is still the main exporter to Europe, accounting for more than 60% of EU imports, but new countries are emerging, including ACP countries such as **Uganda** and **Senegal**, which have seen their markets in Europe grow strongly. However, the trend for ACP countries was drastically reversed in 2017. This was due in particular to the decision of the Société de Cultures Légumières, the main exporter from Senegal (the largest ACP exporting country), to stop production of sweet potatoes due to difficulties in post-harvest processing. However, production and exports are on the rise again in 2020. In the 2020 season balance sheet, Senegalese exports are estimated at more than 8,000 tonnes, up from 222 tonnes the previous year.

The **UK** and **Netherlands** markets are the largest European importers and consumers of sweet potatoes. The market is expected to grow in the coming years in other European countries, led by France, Belgium and Germany. Sweet potatoes enjoy an excellent reputation on the European market due to their dietary properties: they are rich in vitamins A and C, and are considered a healthier alternative to traditional potatoes. European supermarkets are increasingly promoting sweet potato with recipe suggestions. European consumption has grown both domestically and in the catering trade, in particular in the form of mashed potatoes and chips.

42 Le Monde – La patate douce en fait des tonnes (2017).

43 FreshPlaza – Espagne : " En cinq ans, nous avons doublé la production de patates douces " (2019).

2.17. Chilli



Figure 100: Evolution of European chilli imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2012 and 2019 (Source: COLEACP from Eurostat)

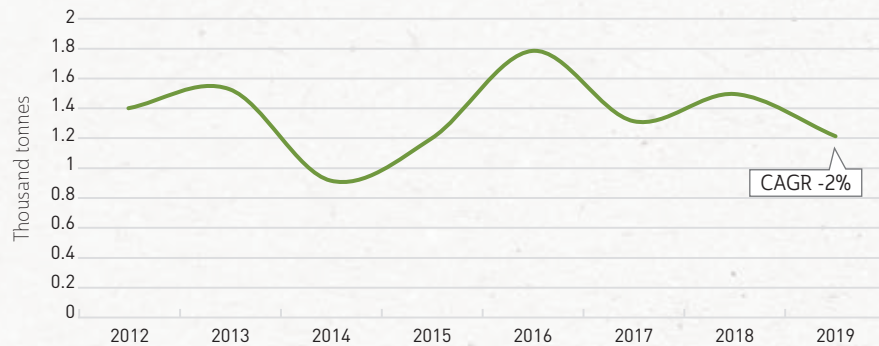


Figure 101: Evolution of European chilli imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2012 and 2019 (Source: COLEACP from Eurostat)

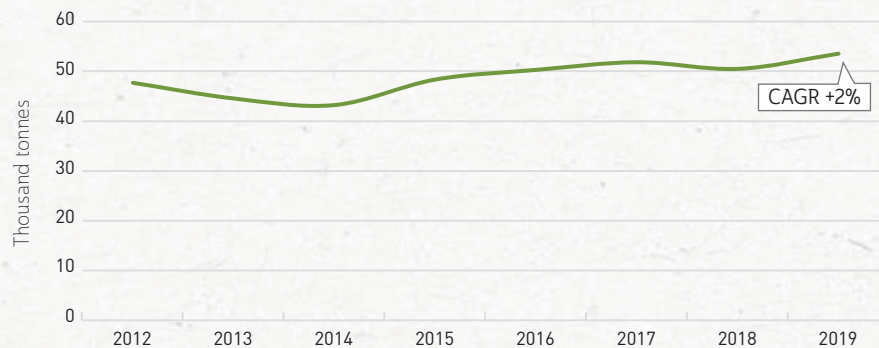


Figure 102: Share of exporting countries in EU28 imports of chilli peppers of ACP origin, in tonnes, in 2012 (total: 1,400 tonnes) and 2019 (total: 1,213 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

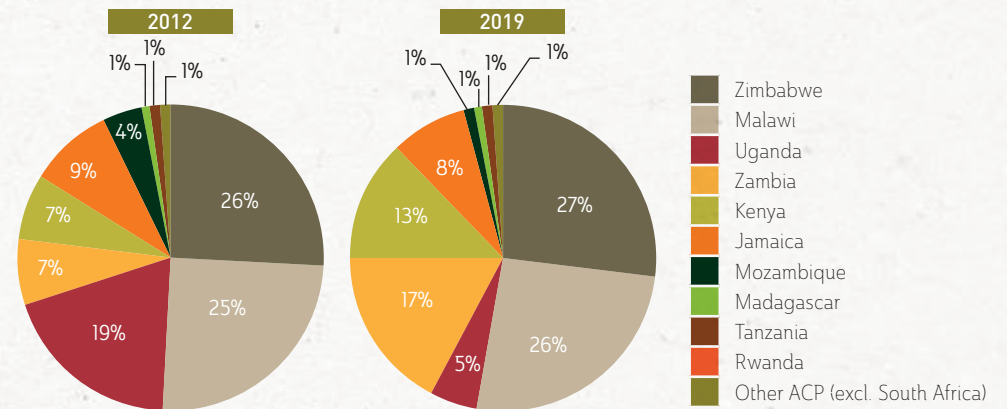
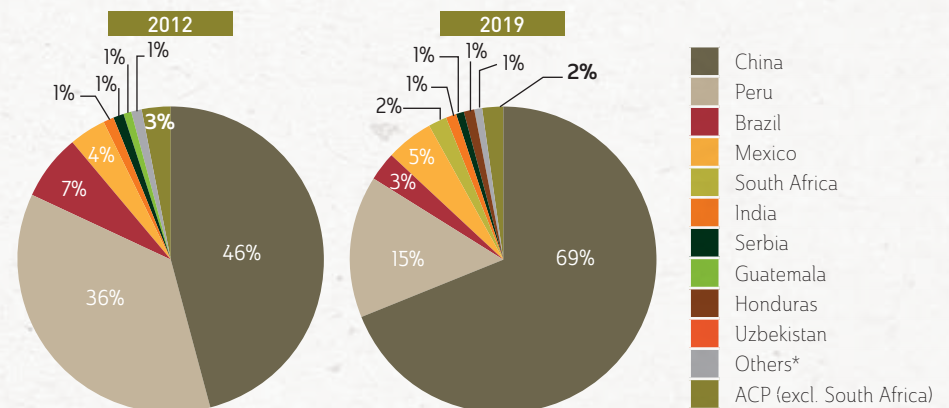


Figure 103: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 chilli imports, in tonnes, in 2012 (total: 49,092 tonnes) and 2019 (total: 54,756 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





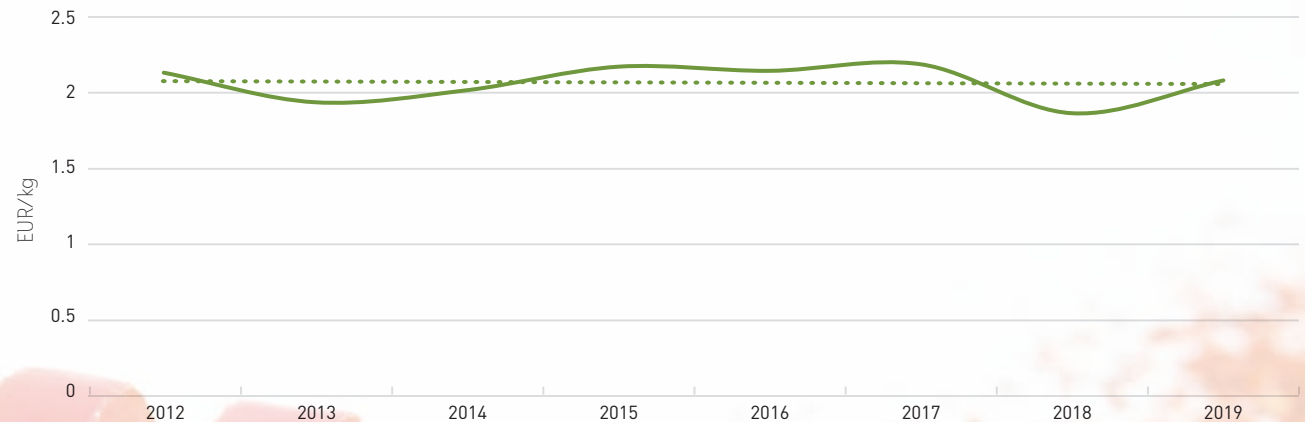
World chilli production has been **steadily increasing** for several years, and consumption has risen sharply in recent years. World marketed production of chillies has reached 10 million tonnes on more than 1 million hectares of cultivated land.

In 2018, global production of dried chillies amounted to 4.4 million tonnes, of which 45.4% is produced by **India**. Thailand, China and Ethiopia are the next largest producers, in descending order. The rise of spicy cuisine in Europe has led to a slight increase in chilli exports to Europe, mainly driven by fresh chillies. The export volume of fresh and dried chillies has increased from 49,000 tonnes in 2012 to almost 55,000 tonnes in 2019.

The **dynamic European demand** for chilli is reflected in the evolution of the average import price of chilli to the EU. Two sharp falls in the average EU import price in 2013 and 2018 were each followed by increases, reaching almost 2.25 euros per kg in 2017 and 2.2 euros per kg in 2019.

The main markets for chilli peppers in the EU are **France**, the **UK** and **Spain**, which have strong historical links with tropical chilli-producing regions (e.g. Morocco for France; India for the UK). The demand for chillies is greater in these markets with larger ethnic populations. Demand is also increasing in Central and Eastern Europe, especially

Figure 104: Evolution of the average CIF import price of chilli to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



in Poland and Romania, although they are not historically chilli-consuming countries.

An opportunity for ACP countries could be the marketing of chilli in forms other than the fresh vegetable. The European market for **dried or powdered chillies and chilli oils** could be easily supplied by ACP countries, especially as these forms of product keep better over time. With this in

mind, a start-up company was created in **Rwanda** in 2014 to recover unsold products from producers, process them and export them to Western markets. The cultivation of chilli peppers also appears to be an employment opportunity for young people in rural areas of **Cameroon**.

2.18. Pea



Figure 105: Evolution of European pea imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

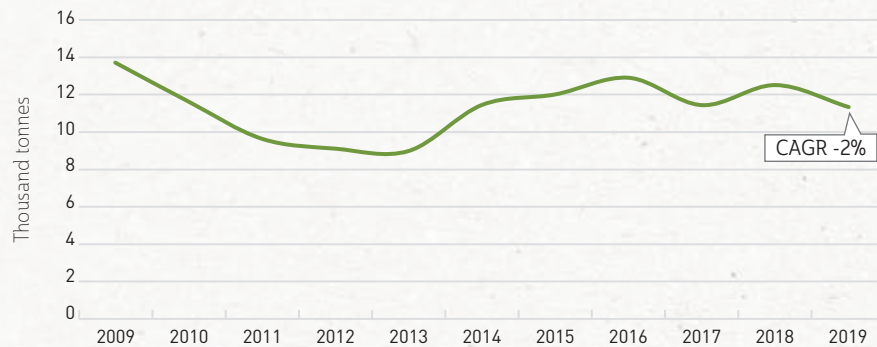


Figure 106: Evolution of European pea imports from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

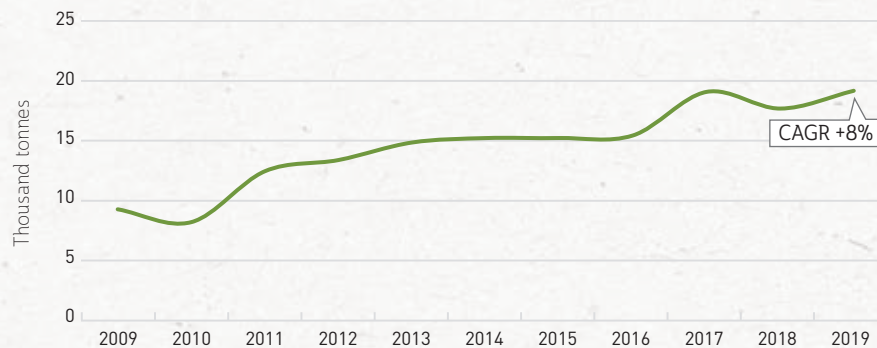


Figure 107: Share of exporting countries in EU28 imports of peas of ACP origin, in tonnes, in 2009 (total: 13,716 tonnes) and 2019 (total: 11,338 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

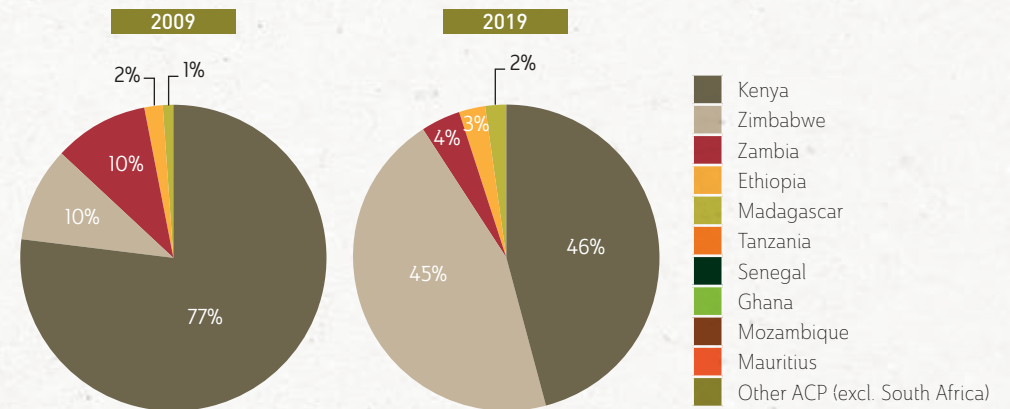
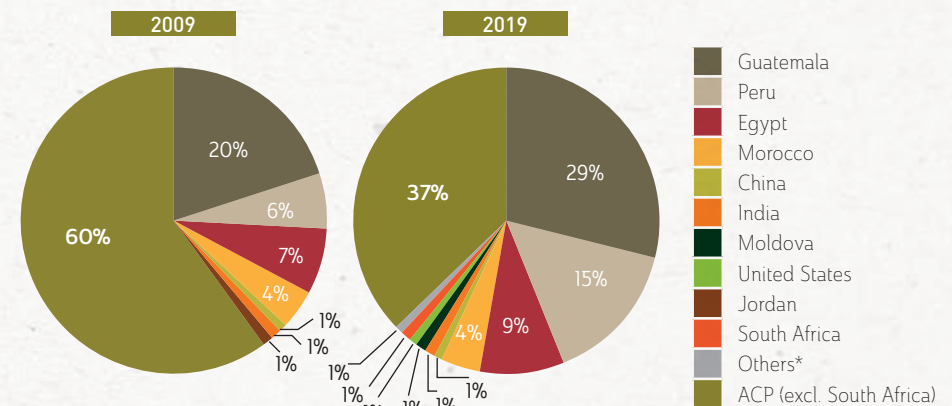


Figure 108: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 pea imports, in tonnes, in 2009 (total: 23,001 tonnes) and 2019 (total: 30,509 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





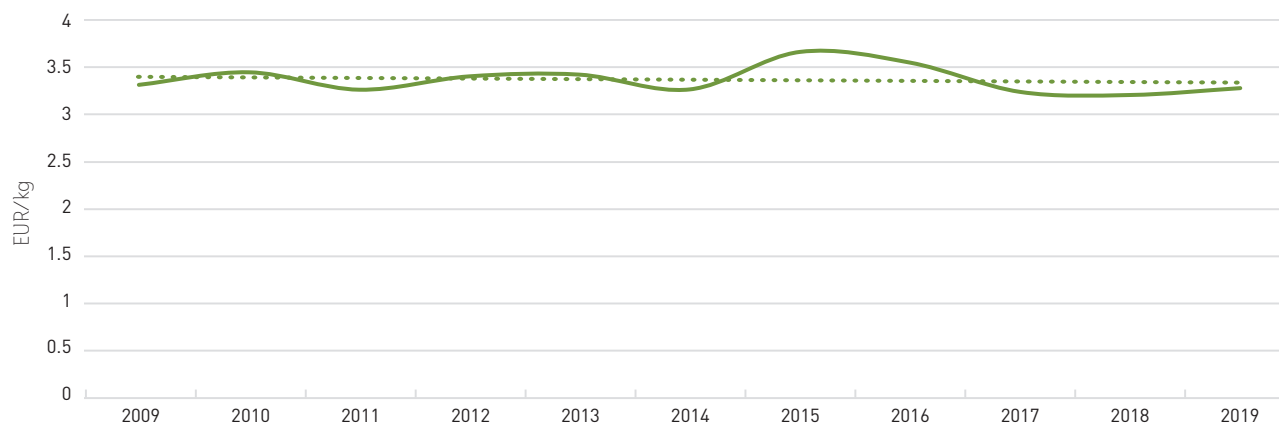
In 2019, the EU imported around 30,000 tonnes of peas, continuing a **decade-long rise in imports**. In 2010 imports stood at 20,000 tonnes, and have increased by 50% in just nine years. The main markets are the **UK** and the **Netherlands**.

This increase in European pea imports was accompanied by a very slight decrease in the average European import price (-1% over the period 2009-19, based on deflated prices).

Taken together, the ACP countries represent the largest source of European pea imports. While the ACP share of European imports has fallen considerably (from 60% to 37% in ten years), the volumes exported are more or less similar to those observed ten years ago. The increase in European imports has been fed by other exporting countries: **Guatemala** has emerged as the main exporter of peas to Europe.

Nevertheless, ACP countries have good growth prospects in this market. Since 2018 and the return of normal phytosanitary controls on entering the European market, **Kenya** is gradually recovering its export level, which had fallen sharply with the tightening of controls. Kenya is now the second largest exporter of peas to the EU after Guatemala. **Zimbabwe**, in third place and ahead of Peru, is

Figure 109: Evolution of the average CIF import price of peas to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated on the basis of the annual HICP, taking 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



continuing its momentum, taking advantage of the end of the Guatemalan season in May to increase its prices on the European market.

Certain ranges of peas are growing strongly in the European market, notably **snow peas** in the Scandinavian countries, Belgium and the

Netherlands. This variety is considered superior to the more common beans and peas produced in Europe. This is a real opportunity for pea exporting countries to add value to this premium product.



2.19. Taro



Figure 110: Evolution of European taro imports from ACP countries (excluding South Africa), in tonnes. CAGR between 2012 and 2019 (Source: COLEACP from Eurostat)

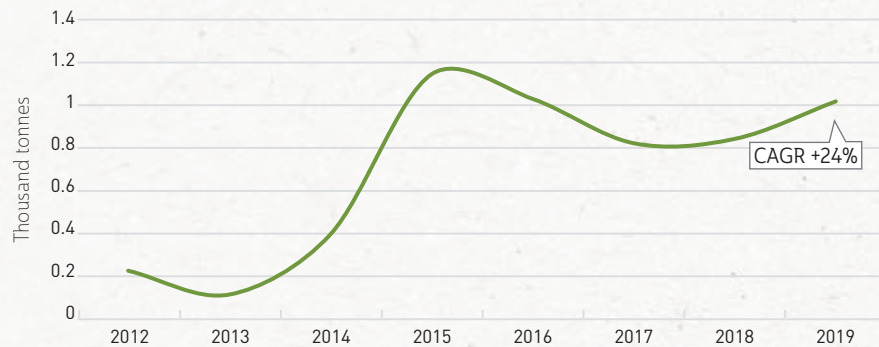
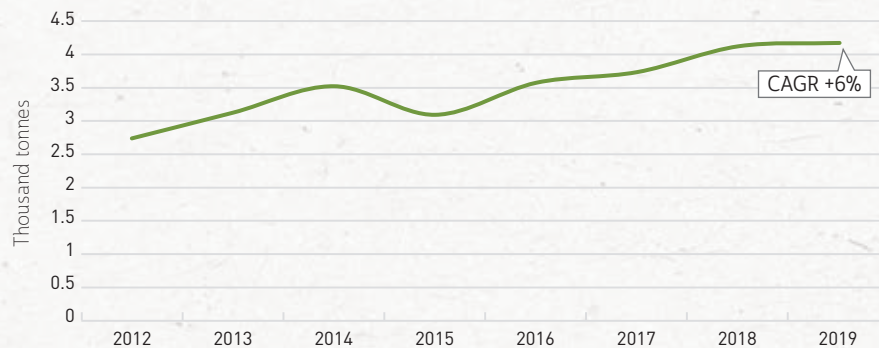


Figure 111: Evolution of European taro imports from the rest of the world (non-ACP countries, except South Africa), in tonnes CAGR between 2012 and 2019 (Source: COLEACP from Eurostat)



* Some of the taro exported by Madagascar is probably derived from the re-export of taro from Reunion Island.

Figure 112: Share of exporting countries in EU28 imports of taro of ACP origin, in tonnes, in 2012 (total: 226 tonnes) and 2019 (total: 1,017 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

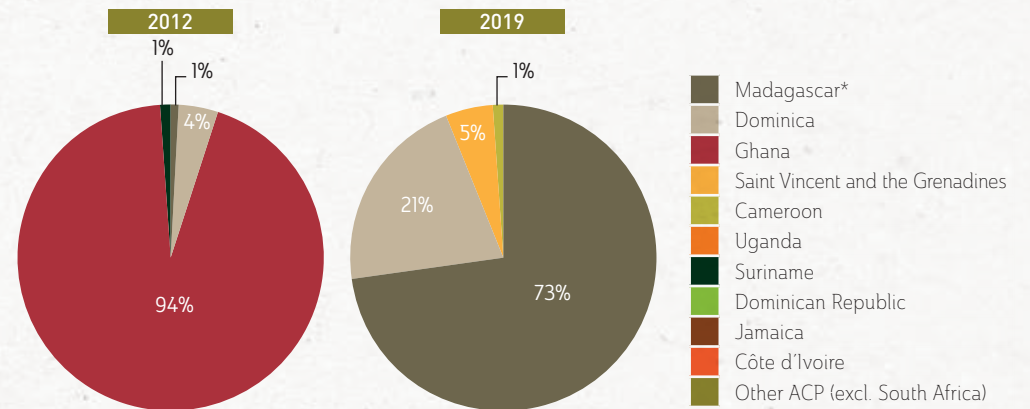
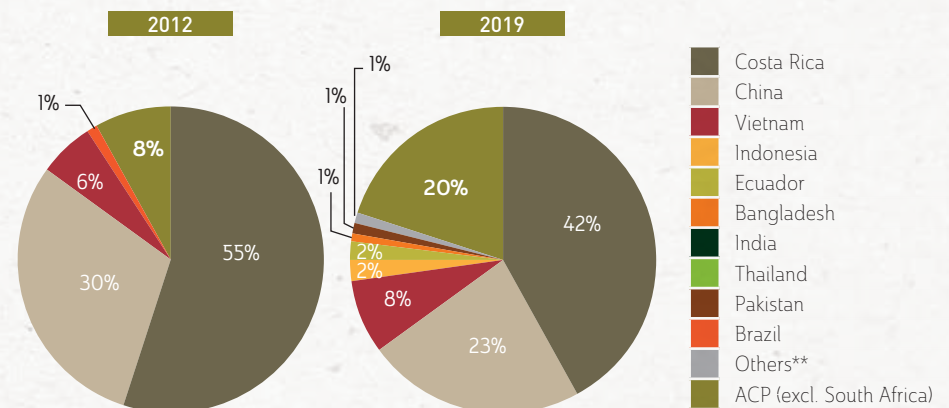


Figure 113: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 taro imports, in tonnes, in 2012 (total: 2,965 tonnes) and 2019 (total: 5,189 tonnes) Others** = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)

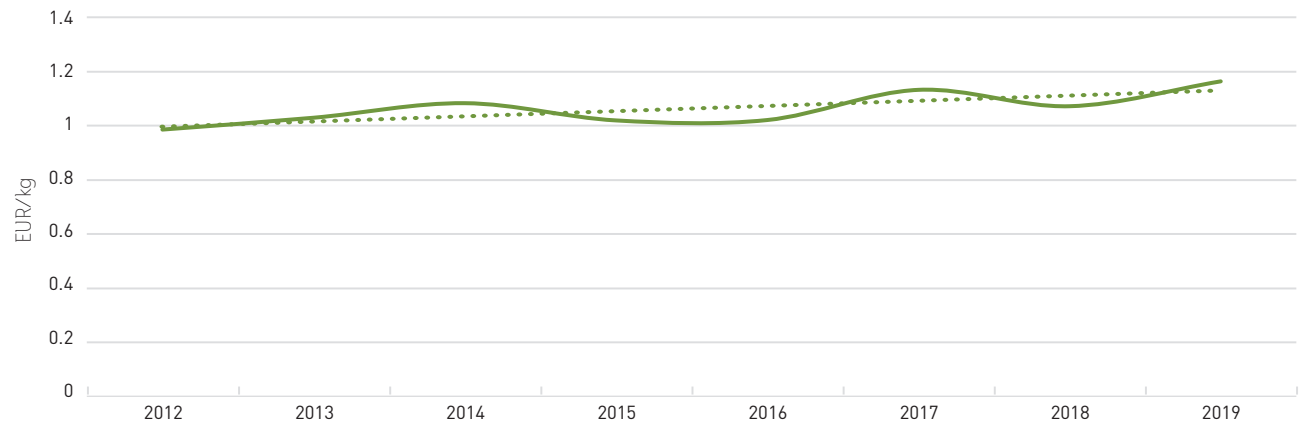




The EU taro import market amounted to 5,200 tonnes in 2019, an **increase of 75%** compared to 2012. The main supplier to the EU market is **Costa Rica**. Import volumes from ACP countries have increased almost fivefold in the past seven years, and now account for 20% of European imports, led by **Madagascar**, the third largest exporter to the EU28 after China, which is becoming an important player in the market.

This increase in European demand for taro goes hand-in-hand with an increase in the average European import price for this commodity. This increase has continued until 2019, and represents a total growth of 18% between 2009 and 2019. The wholesale price in France in 2020 was between 2.40 euros and 2.60 euros per kg. Taking into account inflation over the period 2012–19, the increase in constant euros can be estimated at around 0.18 euro per kg.

Figure 114: Evolution of the average CIF import price of taro to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



2.20. Cherry tomato

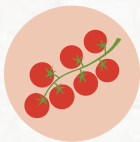


Figure 115: Evolution of European tomato imports (including cherry tomatoes) from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

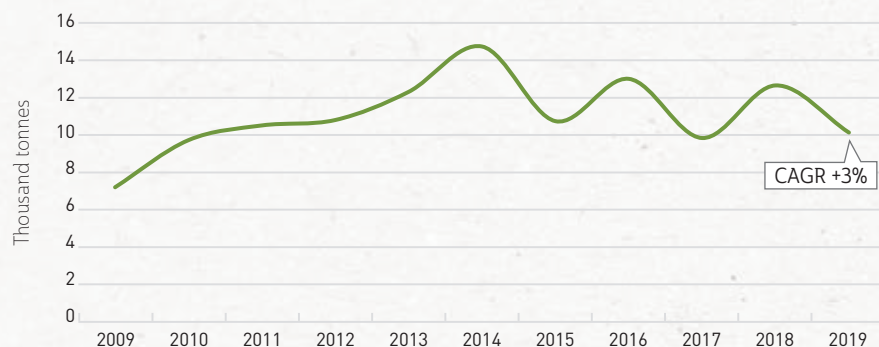


Figure 116: Evolution of European tomato imports (including cherry tomatoes) from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

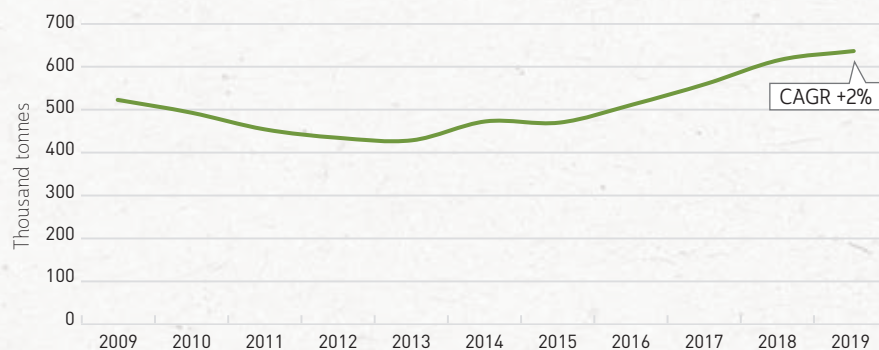


Figure 117: Share of exporting countries in EU28 imports of tomatoes (including cherry tomatoes) of ACP origin, in tonnes, in 2009 (total: 7,202 tonnes) and 2019 (total: 10,130 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

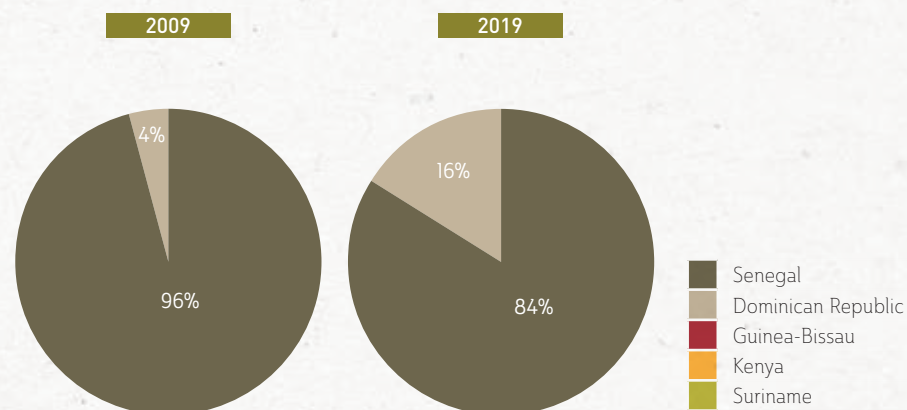
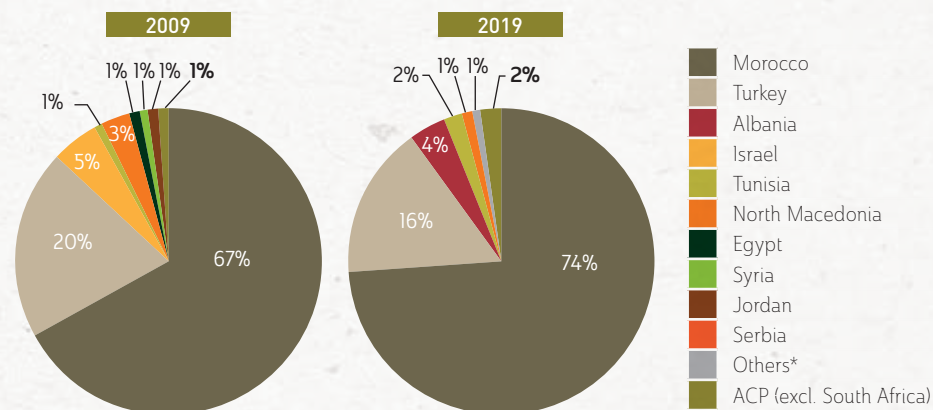
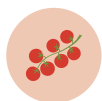


Figure 118: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 tomato imports (including cherry tomatoes), in tonnes, in 2009 (total: 530,218 tonnes) and 2019 (total: 646,856 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)



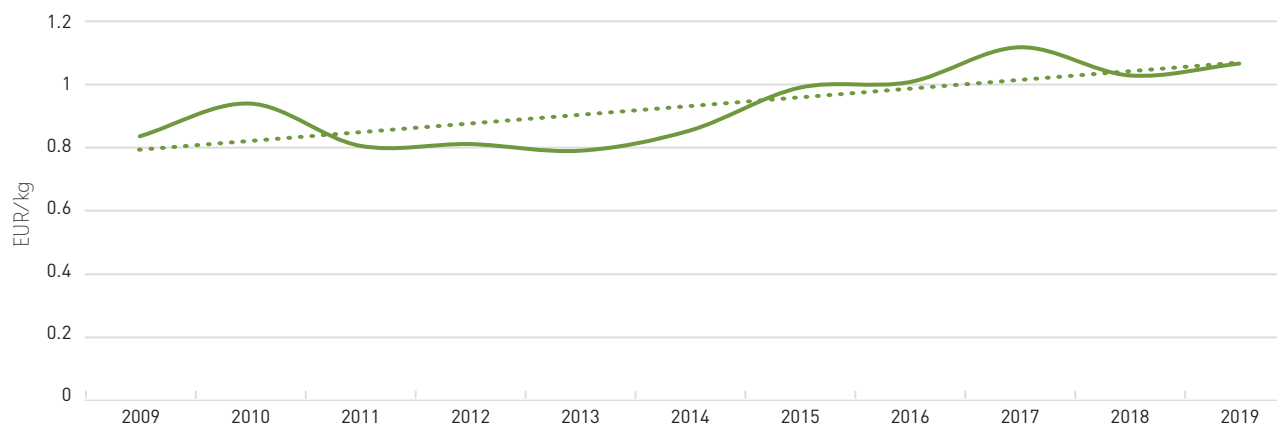


Like the green bean market, the European market for cherry tomatoes is marked by competition between locally grown and imported produce. The European import market is largely dominated by **Morocco**: the country exported 481,000 tonnes of tomatoes in 2019, more than a quarter of which are cherry tomatoes. In total, the EU28 imports almost 650,000 tonnes of tomatoes per year.

Cherry tomato has a good reputation on the European market: it has the image of a fresh product that can be eaten as an aperitif and is good for health. This positive image is contributing to the **increase in European imports** of cherry tomatoes. The average European import price has been rising since 2009, reaching more than 1.1 euros per kg in 2019 (compared to around 0.8 euro per kg in 2009). Even taking inflation into account, there is an interesting **price increase** of around 0.23 euro per kg (27%). Wholesale prices in France in 2020 are generally between 1.60 euros and 4 euros per kg, but can increase significantly (sometimes more than doubling) depending on the origin and whether or not they are organic.

ACP producers are fairly modest in terms of export volume (around 2% of European imports), but are

Figure 119: Evolution of the average CIF import price of cherry tomatoes to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



seeing their exports increase. This is notably the case for **Senegal**, which is aiming to be a future competitor of Morocco on this market, with 95%⁴⁴ of its production destined for export. Private initiatives are being developed in the country with the help of the Senegalese Government, which

grants companies specific “free export enterprise” status. Giant greenhouses have been built with a production capacity of 14,000 tonnes of vegetables per year. Initiatives have also been taken in the **Dominican Republic** with the development of a range of organic cherry tomatoes.

44 Agrimaroc – Tomates cerises : Le Sénégal soutient ses producteurs (2016).

2.21. Jerusalem artichoke and other roots



Figure 120: Evolution of European imports of Jerusalem artichoke and other roots from ACP countries (excluding South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

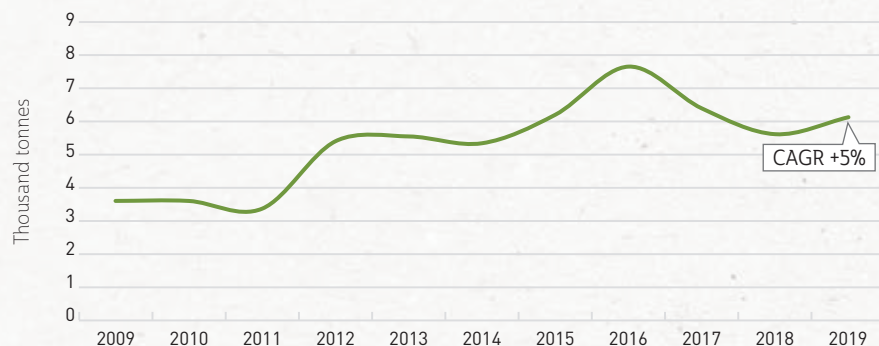


Figure 121: Evolution of European imports of Jerusalem artichoke and other roots from the rest of the world (excluding ACP countries, except South Africa), in tonnes. CAGR between 2009 and 2019 (Source: COLEACP from Eurostat)

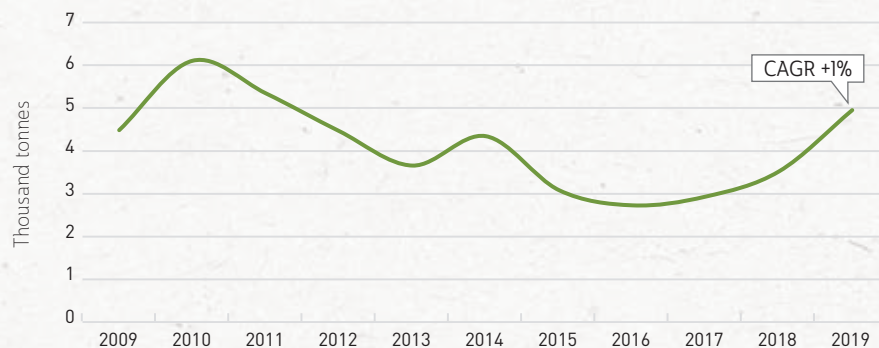


Figure 122: Share of exporting countries in EU28 imports of Jerusalem artichoke and other roots of ACP origin, in tonnes, in 2009 (total: 3,605 tonnes) and 2019 (total: 6,129 tonnes), excluding South Africa (Source: COLEACP from Eurostat)

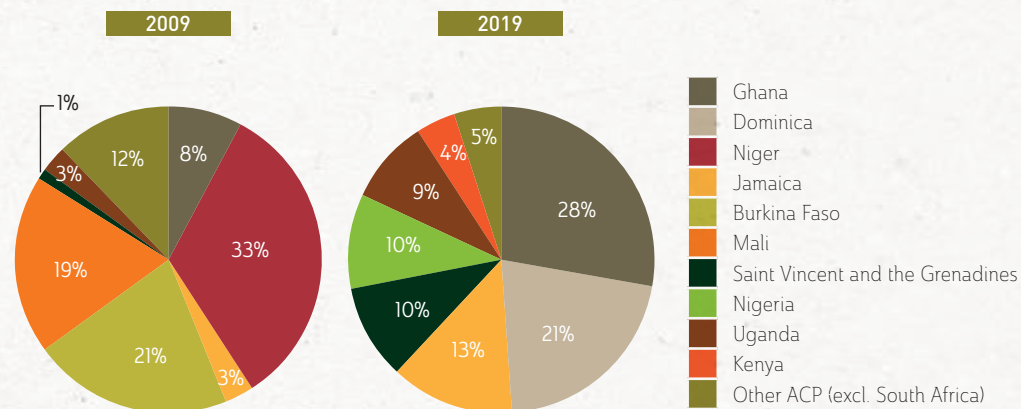
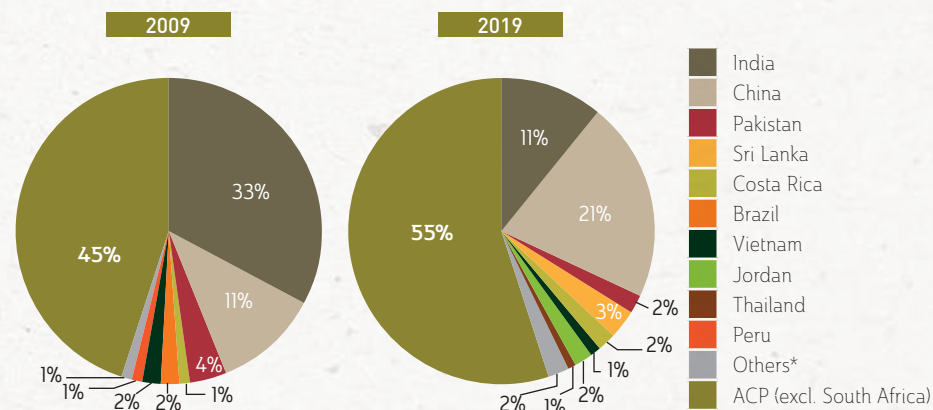


Figure 123: Share of rest of the world and ACP exporting countries (in bold, excluding South Africa) in EU28 imports of Jerusalem artichoke and other roots, in tonnes, in 2009 (total: 8.089 tonnes) and 2019 (total: 11.082 tonnes). Others* = rest of the world, excluding ACP countries (except South Africa) (Source: COLEACP from Eurostat)





Despite being described as a “forgotten vegetable”, Jerusalem artichoke could well make a **comeback** on European shelves. Considered an old-fashioned vegetable, it is benefiting from the trend towards more traditional consumption that favours natural produce. The largest exporter to the EU is China, but several ACP countries round out the top 10: **Ghana, Dominica, Jamaica, Nigeria, Saint Vincent and the Grenadines, Uganda and Kenya**. The ACP countries, taken together, represent the largest source of European imports of Jerusalem artichoke (55%) and have seen their volume increase over the past decade.

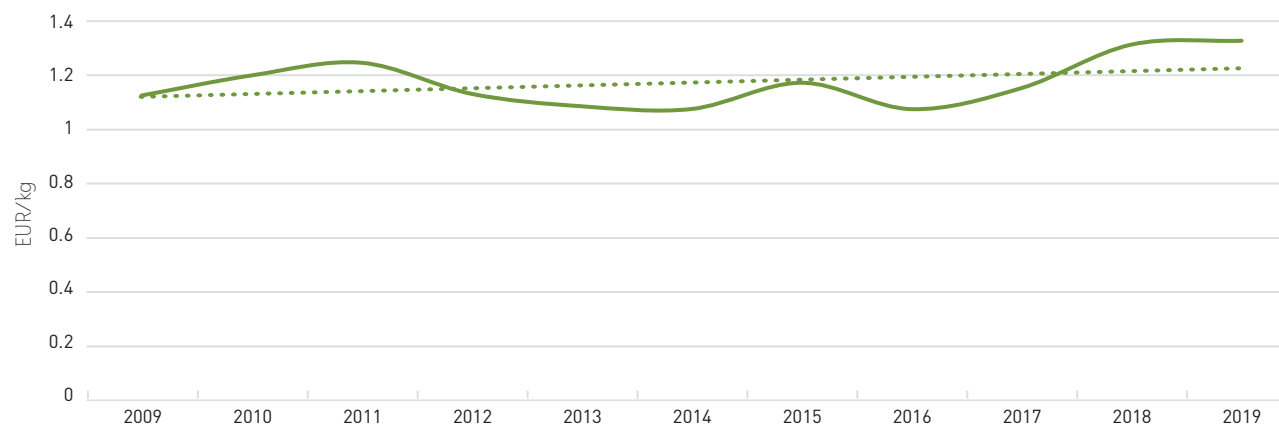
The market is growing slightly and has been accelerating in recent years: in 2019, imports of tubers (excluding taro and sweet potato, i.e. mainly Jerusalem artichoke, salep and arrowroot) amounted to 11,000 tonnes.

This growth in demand is also reflected in a **rise in the average European import price**, which has increased significantly since 2016. In 2019, it amounted to 1.4 euros per kg, compared to 1.0 euro per kg in 2009 and 1.1 euros per kg in 2016. Taking inflation into account, the growth in import prices is estimated at 18% between 2009 and 2019.

The sale price at wholesale level in France in 2020 ranged from 2 euros to 2.50 euros per kg for organic Jerusalem artichoke, and from 1.30 euros to 2 euros per kg for conventional Jerusalem artichoke.

Another opportunity lies in its cultivation for **industrial purposes**: Jerusalem artichoke is used in the production of medicines, ethanol and sweeteners. It is also useful in the manufacture of biofuels and could be a valuable resource in the years to come.

Figure 124: Evolution of the average import price of Jerusalem artichoke and other roots to the EU28 from non-EU28 countries (in EUR/kg). The average annual prices are deflated by the annual HICP using 2015 as the reference period. The dotted line represents the linear price trend. (Source: COLEACP from Eurostat)



3. Summary table

PRODUCT	TRENDS IN "EXTRA-EU28" CAGR VOLUMES, 2009-19 [%]			STAGE OF DEVELOPMENT OF EU28 MARKET*
	ACP	Non-ACP	Overall	
Pineapple	-6.20	1.90	1.25	Mature
Avocado	12.80	12.20	12.22	Developing
Banana	1.30	2.80	2.50	Mature
Plantain	-0.30	3.90	3.78	Mature
Mango	10.90	6.90	7.61	Developing
Melon	17.00	1.70	2.08	Developing
Coconut	5.50	0.70	1.35	Developing
Orange	0.60	1.30	1.23	Mature
Papaya	-3.80	3.00	2.65	Developing
Watermelon	43.50	8.60	9.12	Developing
Lychee	2.50	6.40	4.14	Mature
Green bean	0.50	1.60	1.34	Mature
Yam**	6.90	1.80	4.10	Developing
Sweetcorn	17.60	-3.50	-0.92	Mature
Cassava	0.40	-2.80	-2.50	Mature
Sweet potato	14.00	15.20	15.18	Developing
Chilli pepper**	-2.00	1.70	1.10	Developing
Pea	-1.90	7.50	2.87	Developing
Taro**	23.90	6.20	5.8	Developing
Cherry tomato	3.50	2.00	2.01	Developing
Jerusalem artichoke and other roots	5.50	1.00	3.20	Developing

* Stage of development is determined by both the quantitative evolution of exports and trends in consumer behaviour.

** For these products, the period covered is 2012-19.





VI

OPPORTUNITIES FOR ACP SUPPLY ON THE EUROPEAN FRUIT AND VEGETABLE MARKET

1. The European market is even more buoyant than in 2017

The habits of European consumers offer opportunities for the ACP fruit and vegetable sectors in terms of both quantity and quality. Consumption of fruit and vegetables continues to increase on the EU market. However, fewer than one person in six consumes the daily amount of fruit and vegetables recommended by the WHO, which presents more growth prospects for the sector.

In this context, we have seen an upward trend in ACP fruit and vegetable exports to the EU. This growth concerns volume and particularly value, despite a slight market correction after the 2016 season. This trend, already highlighted in the first edition of this study in 2017, appears to confirm a sustainable dynamic. Exports of mango, melon, watermelon and cherry tomato of ACP origin are good examples of ACP fruit and vegetables where exports to the EU are on the rise. Some products offer very interesting prospects, as their supply is much lower than demand – this is particularly the case for avocados.

European consumers' desire to eat **healthy products** that are good for you is one of the main drivers of this increase in popularity of fruit and vegetables in the European market. The Covid-19 period has only accentuated this phenomenon. The acceleration of the consumption of organic fruit and vegetables since the beginning of 2020 is an illustration of this.

Fruit and vegetables meet the desire to consume fresh, natural products. Hence the interest in promoting the “healthy, natural” aspect of fruit and vegetables (processed or not) to attract consumers.



Communicating on the dietary and nutritional value of fruits such as avocado and papaya makes sense from a marketing point of view. Niche products such as pesticide-free pineapple and Jerusalem artichoke are also popular, thanks to their very natural image. Some processed products, such as pure fruit juices (without added sugar), vegetable crisps, dried fruit and fresh cut snacks (fourth and fifth range) also represent interesting opportunities. They have a more natural and healthy image, despite being processed, and are easy to eat, another factor that is attractive to European consumers.

The search for **new and exotic flavours** is still a trend in European consumer behaviour, especially among young people. This trend concerns both established markets such as mango, and new emerging markets such as papaya and small exotic fruits (pitahaya, starfruit, etc.).

As highlighted in our 2017 study, the **organic** nature of products is increasingly determining consumer choice. This market has become established in recent years and continues to gain market share. Today, all fruit and vegetables are concerned, and the supply is not sufficient to meet existing and potential demand. As organic certification is easier to obtain in the context of medium- and small-scale production, ACP producers have an advantage over the industrial production of their competitors, particularly those in South America. The organic coconut market, for example, has grown significantly in recent years. The same is true for organic bananas, which have seen a 25% increase in the number of consumers on the European market, and whose exports from ACP countries represent 52%. More generally, ethical and **sustainable certifications** (Rainforest Alliance, Fairtrade, etc.)

are a major marketing theme impacting buyers' choices.

Vegetarian and **vegan** diets are also becoming more popular, contributing to a rise in the consumption of plant-based products in Europe. The proportion of European vegetarians is estimated at 6–10%, and the number of **flexitarians** is also increasing. This growing public is expected to consume alternatives to meat, and the horticultural sector should benefit from this development.

On the retail side, the large traditional retailers continue to use fruit and vegetables as a **means of promoting their shops**. "Attractivité augmentée" (enhanced consumer appeal) of fruit and vegetable displays encourages consumers to travel to the shop, rather than buying via online platforms.

At the same time, **online platforms** are developing their fruit and vegetable offer, sometimes in an original way (as in the case of the Berlin-based shop Original Unverpackt), in order to compete with the large retailers. The push marketing of European online or face-to-face distribution favours the popularity of fruit and vegetables, including exotic ones, and thus increases sales and consumption.

The issue of **packaging** is increasingly strategic as media promote the urgency of respecting the environment. The fruit and vegetable sector is constantly innovating in this area with increasingly sustainable packaging, which contributes to the attractiveness of products. However, the latest packaging technologies, which preserve both the quality and sustainability of products, can also act as a barrier to market access for smaller producers such as those in ACP countries, who may not have the necessary equipment.

Finally, import **prices** are on the rise for most of the products studied. This also contributes to the attractiveness of the remunerative European market. However, there remains the question of whether value (and increases in value) are equally distributed to the producers.

2. The European market remains demanding, evolving and highly competitive

EU market opportunities	EU market threats
<ul style="list-style-type: none"> ▪ Increased consumption of fruit and vegetables ▪ Increase in imports of fruit and vegetables of ACP origin ▪ Supply of some fruit and vegetables does not meet demand ▪ Popularity of fresh produce among European consumers ▪ Popularity of exotic produce, especially among young people ▪ Organic food is the driving force behind the qualitative and quantitative growth of the agri-food market; fruit and vegetables are drivers of the organic market ▪ Fruit and vegetables are an important selling point for shops and online platforms ▪ Online platforms help popularise fruit and vegetable consumption ▪ Sustainable packaging innovations are a new marketing focus ▪ Rising import prices 	<ul style="list-style-type: none"> ▪ Ultra-competitiveness of competing ACP fruit and vegetable producers ▪ High requirements to enter the European market and continuous development of these requirements (public norms and standards) ▪ Specific requirements for sustainable packaging and therefore innovation ▪ The rise of locavorism ▪ Civil society pressure to reduce the carbon footprint due to its contribution to global warming

The ultra-competitiveness of **Asian and South American competitors** is still an obstacle to the development of ACP exporting producers on the EU market, who find it difficult to compete in terms of production volumes, prices and consistent quality. Even if the efforts made over the past 10 years by ACP producers are recognised by European buyers, they do not, for the moment, make up for the gap in competitiveness and image.

ACP exporters will have an increasing interest in demonstrating the diversity of their products and the multiplicity of SMEs as assets in order to position themselves as sustainable actors, particularly on the social and environmental levels. This is particularly the case in the EU market, where the EU Green Deal and Farm to Fork Strategy will be the spearhead of its developing agri-food model in the years to come. This will require continued compliance with increasingly stringent regulatory and public requirements and private specifications regarding respect for the environment, and for the working conditions of women and men.

Another potential obstacle to the development of fruit and vegetable exports to the EU and UK market is the impact of a growing media focus on **climate change** on the behaviour of politicians and citizens. The environmental impact of certain fruits or vegetables is easily questioned. Avocado, for example, although popular on the European market, is also a scapegoat in this respect. The kilometres travelled by plane or boat, as well as the large quantities of water needed for its production, are controversial and could be a brake on its expansion. More generally, the trend towards local consumption (“locavorism”) and short-circuit supply chains could curb the growth of fruit and

vegetables imported into the EU. This trend is even more of a threat in the Covid-19 period, when consumers have rediscovered local food. The financial difficulties encountered by many actors in various sectors also mean that consuming local produce is becoming an act of solidarity, contributing to the recovery of national economies. The players in the sector agree, however, that the emergence of local products does not necessarily mean the end of exotic products.



In a political and socio-economic context where climate change is and will be increasingly influencing the behaviour of citizens and consumers, a major challenge for exporters of fresh produce to the EU will be to increasingly demonstrate the sustainability of the production and commercialisation of their fruit and vegetables. The search by European customers for short circuits combined with a certain inward-looking attitude and the growing nationalisation of attitudes

reinforced by the Covid-19 global episode are likely to constitute a constraint for large-scale imports. ACP producer-exporters, as well as their European importing partners and international transporters, will increasingly have to take this into account in their marketing policies. The sharing of data throughout the value chain, facilitated by new technologies (e.g. blockchain), should facilitate transparency and the communication of data on compliance with norms and standards certifying the economic, environmental and social sustainability of production. One of the challenges for product marketing in the years to come will be to inform consumers about the **environmental impact** of the product they are buying; all the more so if it is zero (e.g. zero-carbon footprint). Communicating the positive impact of marketing ACP fruit and vegetables in Europe on the **economic development and poverty alleviation of the countries from which they originate** should be a key element of a future marketing mix for fruit and vegetables imported into Europe from developing or least-developed countries.

Finally, the global turbulence caused by the Covid-19 pandemic is a source of **uncertainty for the future**, both on the international market and on the organisation of international logistics. While some value chains were able to show agility during the worst of the pandemic, such as the mango sector in West Africa, this is not the case for the entire ACP-EU horticultural sector. It will be necessary for the different value chains to continue to consolidate or even reinvent themselves in order to be resilient in the face of potentially more irregular market access in the future.

Hence the importance of working in partnership at different levels of value chains (from producer

to consumer), and of supporting MSMEs upstream so that they are able to meet these ongoing requirements. This implies, in particular, continuous capacity-building activities such as those implemented by COLEACP through the Fit For Market programmes⁴⁵. The requirements of a market such as the EU then become not obstacles to exports (in this case for the ACP countries), but sources of opportunity for the modernisation and development of the entire sector, within a sustainable framework that benefits the millions of family farms involved. In this way, the export sector can play its role as a driving force in the development and organisation of local value chains.

3. Opportunities for products of ACP origin

The outlook is different depending on the value chain and the corresponding market segments. European imports of some products that were emerging in 2017 have soared, such as sweet potatoes; others that are historically more established continue to gain market share, such as avocados; and others see their market remain stable, such as pineapples. Finally, some market segments have significant potential, such as exotic fruits like papaya, pomegranate and lychee, which are popular with young consumers in search of new flavours.

The average annual growth rate (2009–19) is a good indicator of the relative attractiveness of market segments by product, and the performance of ACP origins compared to their competitors in each segment. It indicates the speed at which ACP import volumes and their relative market segments in the



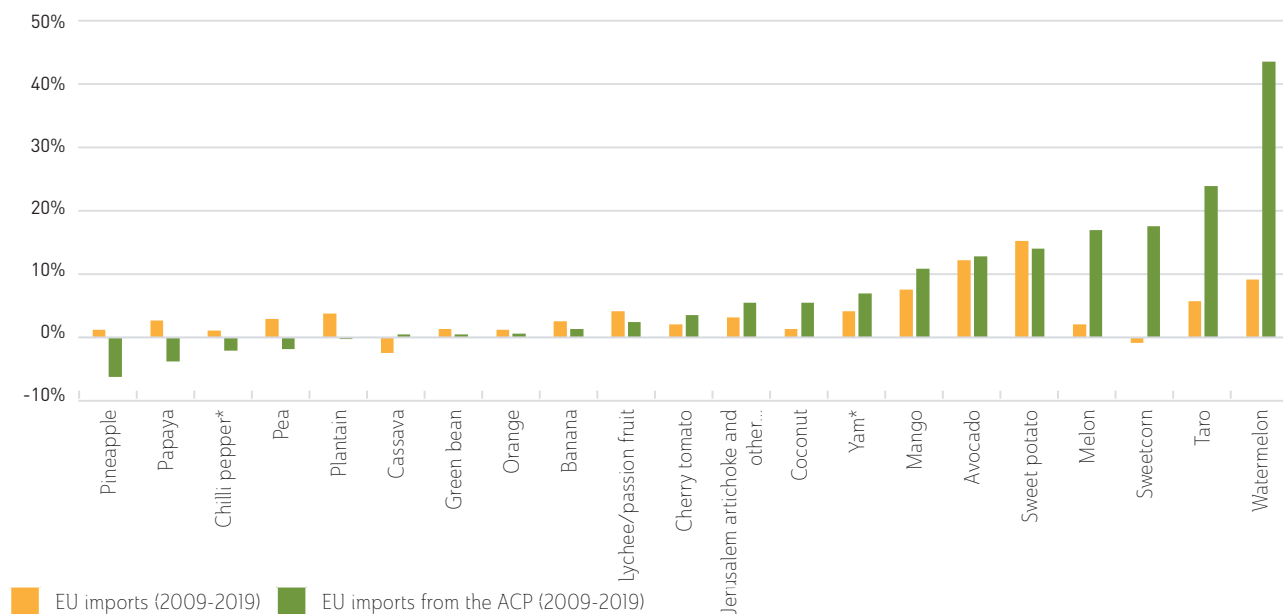
EU have grown on average over the past 11 years. However, it should be borne in mind that high growth rates are easier to achieve with small initial volumes than with high initial volumes.

Comparing the growth rates of EU imports of ACP origin with total EU imports, the following observations can be made. For some products, ACP imports have had a negative growth rate while total EU imports have had a positive growth rate. The pineapple trade is a clear example over a 10-year period. For other products, such as watermelons,

imports of ACP origin have grown much more quickly than total EU imports. For these products, the market is growing and ACP countries are increasing their relative market share. There are also examples where the market segment shows negative growth, for example sweetcorn, but EU imports from the ACP region show positive growth. In this case, overall EU imports are declining, but thanks to their growing competitive advantage, ACP suppliers have managed to increase their exports.

⁴⁵ The Fit For Market and Fit For Market SPS programmes are implemented by COLEACP within the Framework of Development Cooperation between the Organisation of African, Caribbean and Pacific States (OACPS) and the European Union. Fit For Market is co-funded by the French Development Agency (AFD).

Figure 125: Evolution of European imports (total and ACP) of fruit and vegetables in the period 2009–19 (annual growth rates). * For these products, the period covered is 2012–19. (Source: COLEACP from Eurostat)



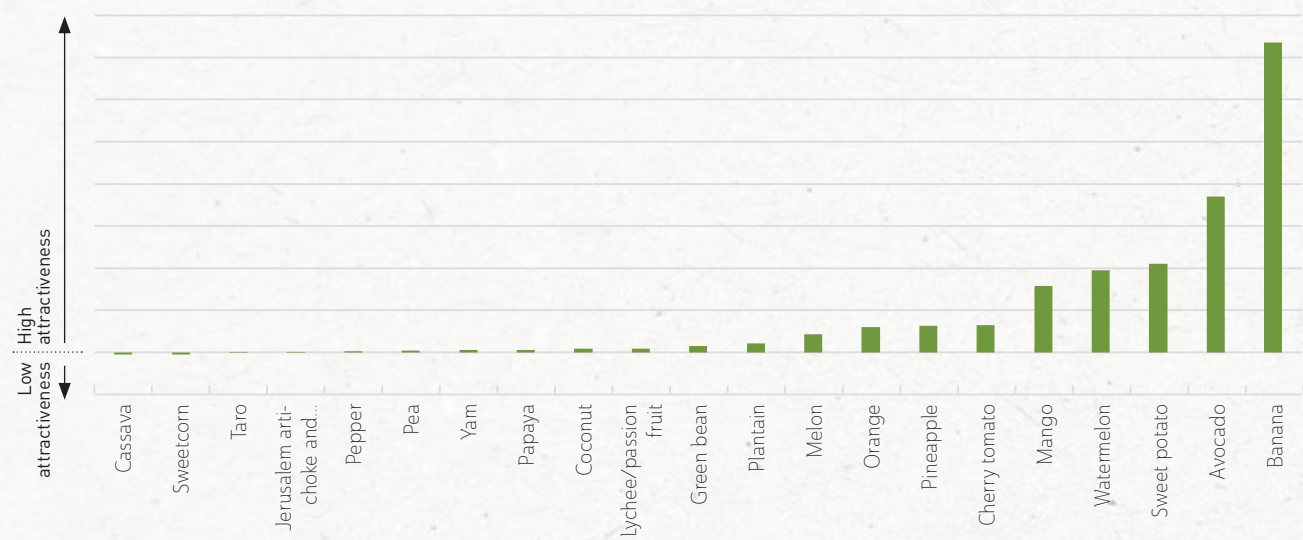
To complete this theoretical analysis, it is necessary to consider these growth rates in relation to the size of the market segments. Weighting the growth rates by the size (in volume for 2019) of their segments is a way to visualise the importance of the growth rates and the theoretical attractiveness of the EU market, as Figures 126 and 127 show.

Comparing Figures 126 and 127, we can see that a group of five products stand out in terms of both volumes imported and recent growth. Bananas still represent an important market segment that remains attractive to ACP countries. However, the volume effect must be qualified by the price per kg sold to the consumer, which is stagnating or even falling due to over-supply of the market, and pressure on prices by supermarket chains such as Lidl and Aldi. The four other flagship products are avocado, sweet potato, watermelon and mango. With the exception of sweet potato, ACP exports have not missed these opportunities. For other products such as sweetcorn, the attractiveness of ACP exports is high, but total EU imports show a negative attractiveness, which could indicate that ACP export growth may be limited in the coming years if the general trend continues.

The export of ACP-processed fruit and vegetables to the EU could become more important in the future, because healthy and wholesome snacking is on the rise. This is also a way of creating local added value on products that constitute sorting waste; and the marketing problems are less complex than for fresh perishable products. Burkina Faso is an example: a traditional mango producer, it has specialised in the production of dried mangoes. By investing in the dried fruit market segment (including organic), ACP countries could develop new export channels to the EU. Another opportunity identified is fruit



Figure 126: Theoretical attractiveness of the European market for imported fruit and vegetables. Based on the CAGR between 2009 and 2019. Total volume of imports in 2019. (Source: COLEACP from Eurostat)

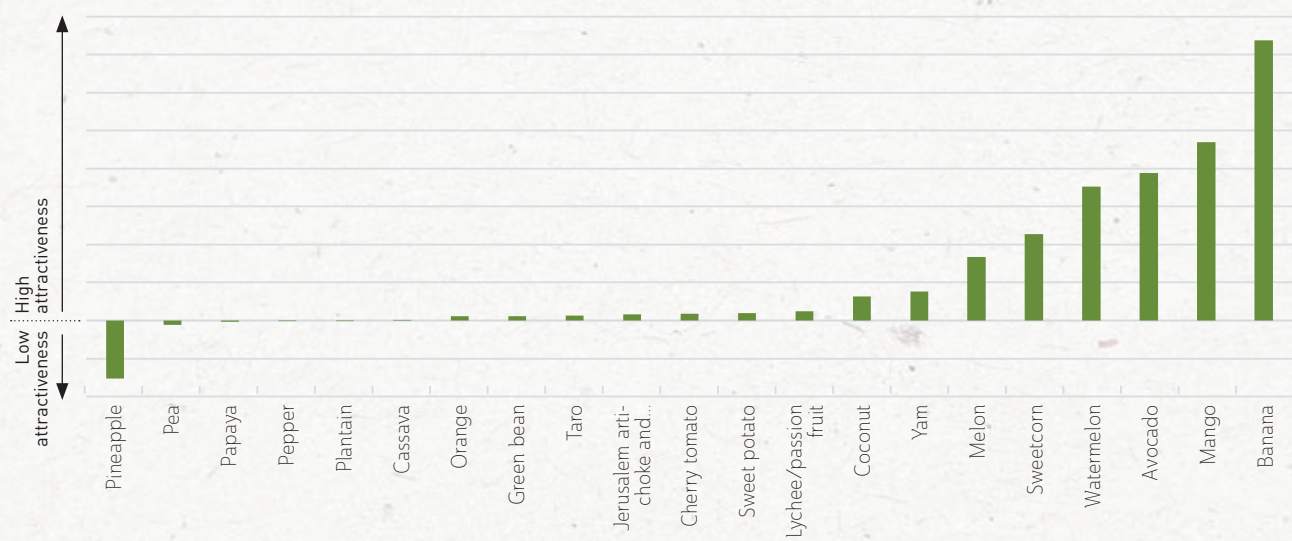


pulp for the production of fruit juices and other fruit preparations.

Many other opportunities for ACP exporters are potential niches that merit specific study, and that do not necessarily emerge from the current export statistics to the EU market (e.g. dried bananas and papayas; frozen limes, lychees, ginger, avocados; chilli and ginger pastes). This is why COLEACP has launched a market and opportunity study for processed fruit and vegetables, to be published by the end of 2021. This study will integrate all possible markets at international (including EU) and local levels.

Finally, the qualitative and quantitative analysis of the various trends in the European (fresh) fruit and vegetable market allows us to identify the main current opportunities for ACP producers according to three main categories of products, depending on their level of opportunity (see next page). Some products still represent small volumes on the European market compared to the major fruit and vegetable export sectors: these are marked with an asterisk.

Figure 127: Theoretical attractiveness of the EU market for imported fruit and vegetables from the ACP. Based on the CAGR between 2009 and 2019 of imports from the ACP. Volume of imports from the ACP in 2019. (Source: COLEACP from Eurostat)



Level 1: Major developing European market segments	Level 2: Niches with high development potential	Level 3: Major stable or mature European market segments
<ul style="list-style-type: none"> ▪ Hass avocado ▪ Banana (organic) ▪ Yam* ▪ Lime ▪ Sweetcorn ▪ Mango (Amélie, Keitt, Kent) ▪ Cassava* ▪ Melon ▪ Papaya ▪ Coconut ▪ Watermelon ▪ Sweet potato ▪ Chilli ▪ Pea ▪ Taro* ▪ Cherry tomato ▪ Jerusalem artichoke* 	<ul style="list-style-type: none"> ▪ Pineapple (Sugarloaf, Smooth Cayenne) ▪ Greenskin avocado ▪ Exotic berries ▪ Snow peas 	<ul style="list-style-type: none"> ▪ Pineapple (MD2) ▪ Banana ▪ Plantain* ▪ Green bean ▪ Lychee ▪ Orange

Products marked with an * represent a relatively small volume of exports or a very small market.

For **conventionally grown** fruit and vegetables, the growth segments identified on the European market remain broadly the same as in the first edition of this study in 2017. However, watermelon and melon are back in more dynamic segments. This can be explained by continued growth in demand, as well as by Senegal's commercial and logistical performance in these value chains. It should also be noted that papaya is becoming a high-growth segment and is no longer a niche product. The European diet, which is becoming spicier (for health reasons and due to more international eating habits), is driving up consumption of spices and chillies. The development of gluten-free food consumption could contribute in the future to a

boom in tubers such as cassava, from which flour is produced.

With regard to **organic** produce, while in 2017 demand concerned mainly a few fruits (mango, banana, lime), the growth in European demand for organic produce is now relevant to all fruit and vegetable value chains. All ACP products are therefore potentially concerned in terms of market opportunities for these countries on the EU market. The highest demand will correspond to the volumes most in demand in the conventional sector (banana, avocado, mango, etc.), but all other fruits and vegetables are involved – fruit and vegetables are one of the main categories of organic products consumed in most countries. In 2019,

seven of the world's top ten organic markets were located in Europe. Specialised distribution is more developed in Europe than in the rest of the world. Supermarkets are responsible for the largest share of growth in the European organic market, and some chains have even made it part of their identity (e.g. Carrefour). In addition, the use of organic products in out-of-home catering has developed in many European countries.

While still attractive, the EU market will be different in the future. **Brexit** has changed the situation, with the exit of the UK from the EU customs union and single market and the re-establishment, even partially, of customs duties at its borders. The opportunities for ACP countries created by

Brexit remain to be confirmed, depending on the signing of bilateral trade agreements between the UK and ACP countries that will grant the latter export advantages. Depending on the product, the UK market accounted for up to a third of some ACP countries' exports to the EU. In the future, monitoring the European fruit and vegetable market for ACP fruit and vegetables will mean monitoring both markets in parallel, especially as the UK is often seen as setting consumption and distribution trends for the whole of Europe.



This document has been prepared by COLEACP as part of co-operation programmes funded by the European Union (European Development Fund – EDF), the Organisation of African, Caribbean and Pacific States (OACPS), the Agence Française de Développement (AFD) and the Standards and Trade Development Facility (STDF).

COLEACP is solely responsible for the content of this publication, which may in no way be considered to represent the official position of the European Union, OACPS, AFD or STDF.

COLEACP implements two intra-ACP Fit For Market programmes. The Fit For Market programme, co-funded between the EU and the AFD, now in its fifth year, aims to strengthen the competitiveness and sustainability of the African, Caribbean and Pacific (ACP) horticultural sector, primarily for the private sector. Fit For Market SPS began in January 2019 and focuses on strengthening the sanitary and phytosanitary (SPS) systems of the ACP horticultural sector, primarily for the public sector. Both programmes form part of the intra-ACP indicative programme (2014-2020) of cooperation between the EU and the OACPS.



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- *Photo 8. Herb "mini greenhouse" in an Albert Heijn shop:* <https://brandgenetics.com/human-thinking/hydroponics-aquaponics-and-vertical-farming-systems-what-weve-been-reading-this-week-at-brand-genetics/>
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- *Photo 13. The KK Bag from Kuku International Packaging, a cotton-based mesh bag:* © Kuku International Packaging / <https://www.fruchtportal.de/news/artikel/042411/im-spotlight-baumwollsack-kk-bag-ab-in-den-sack>
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- *Photo 15. Food ink process used on exotic fruits, developed by Capexo and unveiled at Fruit Logistica 2020:* ©Reussir.fr / <https://www.reussir.fr/fruits-legumes/capexo>
- *Photo 16. Syngenta Seeds' YOOM tomato packaging, winner of the Fruit Logistica Innovation Award 2020:* ©Syngenta / <https://www.syngenta.ch/news/syngenta/and-winner-isyoomtm>

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