

HORTICULTURE STUDY

Phase 1: Mapping of EU Fresh Produce market



Study commissioned by the Embassy of the Kingdom of the Netherlands and undertaken by



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Abbreviations

AYR All Year Round

B2B Business to Business

B2C Business to Consumer

BRC British Retail Consortium

BSCI Business Social Compliance Initiative

CIF Cost, Insurance & Freight

EAC East African Community

EHEC Enterohaemorrhagic Escherichia coli

EPA Economic Partnership Agreement

ETI Ethical Trading Initiative

EU European Union

FEPEX la Federación Española de Asociaciones de Productores Exportadores

GGN 13-digit number that uniquely identifies each producer and individual member of a

producer group in the GLOBALGAP database

GlobalGAP Global - Good Agricultural Practice

GRASP GLOBALG.A.P. Risk Assessment on Social Practice

LDC Least Developed County

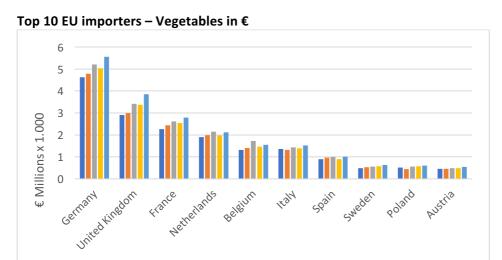
MRL Minimum Residue Levels

NAFTA North American Free Trade Agreement

USA United States of America

Fresh Produce market

Three areas tend to dominate the global trade in fresh produce namely the European Union, NAFTA (US, Mexico and Canada) and Asia and the Pacific. The EU is the biggest importer of fruit and vegetables with figures estimated at 50% of global imports and providing 40% of exports, however trading and processing are in the hands of only a few EU countries.



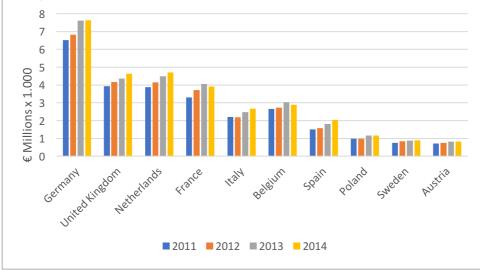
■2011 **■**2012 **■**2013 **■**2014 **■**2015

Figure 1 Source ITC Trade Map - International Trade Statistics Accessed 10/01/2017

9 8 7 6 5 4 3 2

Top 10 EU Importers - Fruit

Figure 2 Source ITC Trade Map – International Trade Statistics Accessed 10/01/2017



As a result of globalisation and greater demand in new markets like Latin America, Asia, Middle East and Africa, but also the side effect of the Russian embargoes and economic crisis in several markets, a process of diversification of international trade flow is taking place. This is resulting in a shift of supply chains leading to the opening of new markets and increased local demand from emerging economies. This has reduced the attractiveness of the EU as the new markets have less legislation and potentially higher margins.

Imports & Export

According to Freshfel (European Fresh Produce Association) in 2014, the EU imported around 13.1 million tonnes to the value of €12.5 billion of which fruit is 87% of imported volume. The main categories imported are bananas, pineapples, apples and pears from the Southern Hemisphere, as well as table grapes and citrus fruit. The EU remains a net importer as the volume imported exceeds the export volume. The biggest suppliers include South Africa, Costa Rica, Morocco, Turkey, Ecuador, Chile, Colombia, Peru, Brazil, New Zealand, Argentina, Israel, Egypt and Dominican Republic.

Consumers worldwide are increasingly demanding a higher-value and more interesting range of fruits and vegetables. The result is that, while the volume of fresh fruit and vegetable consumption around the world is barely increasing, the value of global fruit and vegetable trade is rising, spurred on by new developing markets such as China and the higher evolution of established markets such as the US. These countries are the major contributors to growth in global fruit and vegetables import demand, but others like Thailand, Malaysia, South Korea and the United Arab Emirates have also become promising markets.

While the European market might not be the growth engine for global exporters it once was, it nevertheless remains a very large and growing import market. The growth in nut and banana imports has been prominent, but rising demand for many other fruit and vegetable categories has also been creating opportunities, especially for producers close to the EU such as Morocco and Turkey.

Well-established fresh produce exporters like those in New Zealand, the US, Australia and Chile are naturally looking to play a growing role in global trade, but up-and-coming exporting nations such as Mexico and Peru are rising in prominence and proving worthy competitors. Other producer nations such as Morocco, Thailand and Vietnam are also strategically well-placed to capitalise, as they look to better organise and orientate themselves to meet the product and quality requirements of today's high-value import markets. What's more, local suppliers in markets such as China are also actively investing to better compete with imported produce and meet growing demand for affordable produce in the nearby region.

According to data from Eurostat; Morocco and Egypt continue to gain weight as the main non-EU vegetable supplier countries for the EU, with a respective 13% and 10% growth in volume in the first half of 2016 over the same period of 2015, totalling 482,571 tons and 250,559 tons.

EU imports of vegetables from Morocco accounted for 31% of the EU's total imports from third countries in the first half of 2016. Imports from Egypt accounted for 15% of the total.

EU vegetable imports from Morocco amounted to €591.6 million (+10%), and accounted for 36% of the total value of EU imports from third countries, which amounted to €1,602 million. EU imports from Egypt amounted to €155.5 million.

The tomato is the flagship Moroccan vegetable import with 247,152 tons, that is 8% more than in the first half of 2015 and €249.6 million (+7%) more. Leguminous vegetable imports also stood out, as green bean imports increased by 8% in volume and 92,615 tons.

The main vegetables imported from Egypt are potatoes with 157,459 tons (+4%) and onions, with 72,378 tons (+31%). Turkey follows Morocco and Egypt and it is the third largest supplier of fresh vegetables in the EU with 237,918 tons, (+3%) with a sharp increase in potatoes (+26%), which totalled 173,543 tons.

The positive trend of vegetable purchases from Morocco and Egypt is part of a global increase in purchases from non-EU countries, which grew by 23% in volume and 11% in value in the first half of 2016 when compared with the same period of 2015, amounting to 1.55 million tons and €1,602 million.

According to FEPEX (Spanish federation of associations of producers and exporters of fruits, vegetables, flowers and live plants), the strong growth of EU vegetable imports from third countries has a direct impact on intra-Community Member States vegetable trade, which decreased in the same period by 1%.

Exports

EU exports have been constantly growing since the turn of the century. In 2014, exports reached 6.2 million tonnes to the value of €4.8bn of which 68% is fruit and 32% vegetables. Russia was the main recipient of EU produce, a status challenged by the embargo initiated by the Russian Federation in August 2014. Nevertheless, EU exporters managed to stabilize its exports and even increase the exported quantity with the opening of new markets and the searching of new opportunities.

The main export destinations outside of the EU include Russia until August 2014, Belarus, Switzerland, Norway, Ukraine, Algeria, Brazil, Egypt and Senegal.

East Africa focussed EU countries

Trade in fruit and vegetable products has been among the most dynamic areas of international agricultural trade, stimulated by rising incomes and growing consumer interest in product variety, freshness, convenience and year-round availability. Advances in production, postharvest handling, processing and logistical technologies along with increased levels of international investment have played a facilitating role. For developing countries trade in these products has been attractive in the face of highly volatile or declining long-term trends in the prices for many traditional export products. Although many developing country suppliers have entered the field, relatively few have achieved significant, sustained success, reflecting the fact that the industry is highly competitive and rapidly changing.

As shown below, Kenya has been successful in building strong trading relations especially with Netherlands and United Kingdom who represent 72% of all exports from Kenya. By value, the Netherlands is the main export destination for fruit with 48% (Table 1) and 27% of the overall exports and the United Kingdom represents of 58% of Kenyan vegetable exports in 2015 (Table 2) and combined 45% of overall exports from Kenya.

Kenya Top 5 Fruit Export Countries 2015								
Value € (CIF) Volume/KG								
Netherlands	29,759,738	48%	10,649,000	47%				
France	16,830,981	27%	7,993,000	35%				
Germany	5,915,197	9%	720,000	3%				
United Kingdom	5,057,492	8%	1,157,000	5%				
Belgium	2,142,470	3%	883,000	4%				
EU28	62,628,431		22,587,000					

Table 1 Source: EU Exporthelp Accessed 10/01/2017

Kenya Top 5 Vegetable Export Countries 2015							
Value € (CIF) Volume/KG							
United Kingdom	103,547,779	58%	29,885,000	58%			
Netherlands	35,510,800	20%	9,544,000	19%			
France	20,480,625	11%	5,607,000	11%			
Germany	9,672,072	5%	2,822,000	6%			
Belgium	7,994,332	4%	2,757,000	5%			
EU28	179,318,173		51,102,000				

Table 2 Source: EU Exporthelp Accessed 10/01/2017

In comparison to Kenya; Tanzania has lower direct exports to the EU as shown below. A substantial proportion of Tanzania's fresh produce, destined for the EU, is exported via Kenya's well-established transport links. The Netherlands and the United Kingdom are the main import countries representing 94% in total Tanzanian export value. The Netherlands is the main importer for fruit with 58% (Table 3) and 31% overall exports and the United Kingdom represents of 57% of Tanzanian vegetable exports in 2015 (Table 2) and 57% of the overall exports.

Tanzania Top 5 Fruit Export Countries 2015								
Value € (CIF) Volume/KG								
Netherlands	5,312,181	58%	2,142,000	60%				
United Kingdom	1,715,278	19%	630,000	18%				
France	1,602,524	17%	703,000	20%				
Germany	303,638	3%	51,000	1%				
Spain	133,411	1%	36,000	1%				
EU28	9,190,543		3,599,000					

Table 3 Source: EU Exporthelp Accessed 10/01/2017

Tanzania Top 5 Vegetable Export Countries 2015								
Value € (CIF) Volume/KG								
United Kingdom	6,684,893	57%	3,200,000	56%				
Netherlands	2,402,956	20%	786,000	14%				
Italy	1,730,091	15%	1,235,000	21%				
Belgium	524,760	4%	351,000	6%				
France	185,186	2%	81,000	1%				
EU28	11,733,019		5,746,000					

Table 4 Source: EU Exporthelp Accessed 10/01/2017

Annex 1 & 2 show a more detailed breakdown of vegetables and fruit imported from Africa, showing that beans are the biggest category in vegetables with 58% whereas fruit is more differentiated and is not dominated by one specific product group and is made up of grapes 21%, citrus 16%, banana 12% with the segment stone fruit (mango, pineapple, avocado, dates, figs) making up 14%.

The Netherlands and the UK are key export countries and both face different challenges and opportunities for both Kenya and Tanzania.

The UK has become increasingly reliant on imports of fruit and vegetables over the past two decades, with a self-sufficiency rate of just 58% in vegetables and 11% in fruit. This has been driven in-part by large increases in imports of non-native foods to the UK, such as pineapples, melons and avocados.

The EU is currently the main source of food imports to the UK. According to UK government data in 2015¹, 40% of all fresh vegetable imports came from Spain and 28% came from the Netherlands, with Poland and France both providing 4.0% imports.

The British Retail Consortium (BRC) warned that there was a danger that the cost of EU imports might increase following Brexit, if the government applied customs duties. A survey² of UK retailers asking about the impact of Brexit found that about one-third of UK retailers are considering sourcing from a different country and 38% expect to see more produce sourced from Africa. Potential changes to EU tariffs, the falling value of sterling, and attempts to reduce costs by sourcing outside Europe were listed as factors behind any change.

Brexit is a concern to the Netherlands Fresh Produce industry. According to the GroentenFruitHuis, exports in 2013 from the Netherlands to the UK was worth €932 million, second only to Germany (€2.8 Billion). In the case of a British leave, it could have significant impact on the fresh produce trade, primarily between the EU-27 and the U.K., given the importance of EU-27 shipments of fresh produce to the U.K. market.

If these developments have a significant impact on the trading relationship with the Netherlands it is unclear what the impact would be for Kenya and Tanzania. The fact the UK is already dominant in these markets the conclusion could be that export volumes could grow without volumes shipped to the Netherlands being negatively affected.

Products

EU production

In 2015, almost 2.2 million hectares of land in the EU was used to produce vegetables for fresh consumption and for processing which amounts to 1.9 % of all EU arable land. Melons, tomatoes, peppers, eggplants, courgettes, cucumbers and gherkins covered more than a quarter (27.6 %) of this area. Root, tuber & bulb vegetables, such as carrots, radishes, onions, shallots and garlic came second (18.8 %), followed closely (17.8 %) by the diverse group of leafy and stalked vegetables (such as lettuce, spinach, chicory, endives, asparagus, artichokes, etc.). Fresh pulses (mainly peas and beans) were produced on 13.0 % of the vegetable area, brassicas (cabbages, cauliflowers and broccoli) on 12.4 % and strawberries on 4.9 % of arable landmass.

Almost half (47.2 %) of the vegetable area was located in just three Member States. These were Italy (19.5 %), Spain (16.6 %) and Poland (11.1 %). This first group was followed by a second group made up of France (10.9 %) and Romania (7.1 %).

Among individual vegetable crops, tomatoes occupied the largest area, accounting for 11.7 % of the total vegetable area. The areas used to grow tomatoes were predominately in Italy (41.9 %) and Spain (22.8 %), followed at a distance by Romania (9.5 %), Portugal (7.3 %) and Greece (6.7 %).

Non-EU

In 2015, the EU imported fruit and vegetables from third countries with a value of about €19.1 billion. Fruit imports were much more significant than vegetables, accounting for 88.4 % of the total.

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/557993/AUK-2015-05oct16.pdf

² http://www.newsroom.barclays.co.uk/r/3384/supply_chain_considerations_front_of_mind_for_retailers

Fresh and dried nuts were the most imported crops (26.2 %) in terms of value, followed by bananas (17.7 %), dates, figs, pineapples and avocados (together 11.5 %), grapes (9.9 %) and citrus fruits ³

Fruit and vegetables were imported from a large number of countries, scattered around the globe. The United States (15.0 %) Turkey (10.7 %), South Africa (8.4 %), Morocco (6.7 %) and Costa Rica (6.2 %). Almost half of the total value of imported fruit and fresh vegetables originated from these five countries.

There is a clear specialisation trend in the import countries, two thirds of bananas originated from Central and South America with Colombia accounting for 26.0 %, Ecuador 24.5 % and Costa Rica 17% and two fifths of dates, figs, pineapple and avocados came from Costa Rica (24.5 %) and Peru (16.3 %).

Almost one third of citrus fruits entered the EU market from South Africa (31.3 %); an additional third came from Argentina (11.2 %), Turkey (9.9 %) and Morocco (9.3 %).

Grapes were mostly imported from South Africa (26.0 %), Turkey (20.0 %) and Chile (15.4 %), while fresh strawberries and other berries were supplied by Chile (20.5 %), New Zealand (18.5 %) and Morocco (11.9 %).

Almost four fifths of apples and pears arrived from three countries: South Africa (29.6 %), Chile (27.7 %) and New Zealand (21.6 %), while half of the imported cherries, apricots, plums and peaches originated from Chile (20.5 %), New Zealand (18.7 %) and Morocco (11.9 %).

Israel was the leading supplier of carrots (56.8 %) and Kenya of legumes (43.6 %), while Turkey led the imports for cucumbers (27.3 %) and China for onions and garlic (24.6 %).

Role of Smallholders

By definition, agricultural growth is the primary source of poverty reduction in most agriculture-based economies. The expansion of smallholder farming can lead to a faster rate of poverty alleviation. However, importers and supermarkets remain wary of sourcing from small holder farmers. They realise that failure to meet food safety or ethical trading standards can result in bad publicity and can undermine their position in the market place. Concentrating the smallholders into a grower base will reduce the exposure to risk through greater control over the production and distribution processes. The export of horticultural produce from smallholders is only viable when a large producer or export companies are able to provide support, guidance and an element of control to the smallholder operations.

Of the companies interviewed, it became apparent that the biggest perceived challenges, especially from companies without vertically integrated supply chains, is quality and reliability of the in-country exporter. It was indicated during several interviews that not all exporters, besides standard certification requirements, understand the importance of requirement of adherence to delivery schedules, quality in terms of defects, ripeness and specification.

The companies perceived the most successful in Kenya & Tanzania were the ones with very close ties either through vertical integration or by having a stake in the farm.

Historically, production for especially beans and mango was a combination of commercial farms and small holder farms. In 2012 the EU changed its regulation in stipulating that Dimethoate residues

³ http://ec.europa.eu/eurostat/statistics-explained/index.php/The_fruit_and_vegetable_sector_in_the_EU_-_a_statistical_overview#Trade

should not exceed 0.02 parts per million. In 2013 higher residues of Dimethoate were found in Kenya produce, resulting in sanctions from the European Union Commission through an increase in the mandatory checks of 10% of all types of beans, such as green beans or sugar snaps.

Dimethoate was a popular chemical with small holders and as not all smallholders adhered to the restriction of use it has resulted that small holders have been squeezed out of several supply chains linked to larger commercial farms.

Sourcing

Fresh Produce sourcing is a global activity with South Africa being the largest source of citrus, avocado and mango from Africa with Kenya and Tanzania being the largest source for legumes. For only one of the interviewed companies, Kenya was the main source of supply due to the parent's company interest in farms in Kenya but they still sourced beans from Morocco, Egypt, Ethiopia, Zimbabwe and Guatemala.

Not all companies interviewed are currently importing product from Kenya and/or Tanzania on a daily or weekly basis. The companies which are importing product from East Africa daily are closely integrated with the supply base through invested business interest.

The remaining companies dealt or are dealing with third-party supply partners with Kenya being the main source from East Africa. Issues around quality and reliability was mentioned on several occasions and for some this reluctance is a barrier for procuring from Kenya and or Tanzania.

Phytosanitary and quality

Food safety is the number one priority in fresh fruit and vegetables and is linked to active substances, minor uses and their residues as well to matters relating to food additives, sanitizers, fertilizers and contaminants.

Following the largest outbreaks of a food-borne infection caused by Enterohaemorrhagic Escherichia coli (EHEC) in 2011, most European Member States have significantly increased the number of regulations aiming at controlling the microbiological safety of fruit and vegetables.

Quality is the key requirement and was a topic brought up in every interview. Price is an important factor but is affected by demand and supply in the global market place. Quality, however, is a fixed criteria and product always needs to adhere to customer specification and expectations.

Phytosanitary issues like for instance with avocado and mango and fruit fly are reasons for a complete rejection of shipments. This is not just an issue with shipment to the EU for Kenya but also to countries like South Africa who, in 2010, banned the export of avocado from Kenya after the produce was found to be infested with fruit fly and is yet to lift the ban on avocados from Kenya, six years on.

Certification

Food safety, environment, social and sustainability are high on the agendas of retailers. In most cases, voluntary industry standards are the minimum requirement but several EU retailers require the producer to adhere to their internal standards which can exceed these industry standards.

B2B, C2B & Organic

A minimum requirement for any producer and exporter is that they have GlobalGap certification. GlobalGap is B2B pre farmgate standard that covers the whole agricultural production process including a chain of custody to enable full traceability.

This includes small holders who need to be GlobalGAP certified. All product needs to be accompanied by a GGN number (13-digit number GLOBALGAP number that uniquely identifies each producer and individual member of a producer group in the GLOBALGAP database.

Some EU retailers also require social certification like BSCI, ETI, GRASP.

Besides the required industry standards, the producers could gain B2C certification, Fairtrade, Rainforest Alliance, Organic etc., which could give the supplier an edge over other suppliers but this doesn't guarantee sales.

Organic is a niche market but never-the-less an important one as it has seen a lot of growth especially in Germany, France, Denmark, Sweden and Austria.

EU legislation & MRL

All product imported into the EU must comply, as a minimum, with EU food safety laws and standards. All companies interviewed undertake their own MRL testing with the norm for most being to test the first shipment and then randomly of the consecutive shipments.

Preferential Arrangements

The EU has a number of preferential trade arrangements with certain individual countries or groups of countries outside the EU. These allow particular goods originating in the countries concerned to be imported and entered to free circulation at reduced rates of customs import duty. This also applies to fresh produce from Kenya and Tanzania through the Economic Partnership Agreement (EPA). Under the EPA the EU grants 100 percent duty free, quota free access to its market for all imports from the East African Community (EAC)) (Burundi, Kenya, Rwanda, Tanzania and Uganda).

The EU and EAC negotiations around the EPA reached a conclusion in October 2014, after 12 years of negotiations. On 16th October, the EAC initialled an EPA with the EU which sent for the 'legal scrubbing' process which was completed towards the end of 2015. With everything in place, the official signing of the EPA was set to take place on 18 July 2016 in Nairobi, Kenya after which ratification was to take place by October 2016. Rwanda and Kenya had signed the agreement but a last minute refusal by Tanzania to sign the trade deal has been a source of confusion and concern among the EU and the EAC member countries.

The Permanent Secretary in the Tanzanian Ministry of Foreign Affairs, Dr Aziz Mlima said his country would not sign the EAC-EU EPA citing 'turmoil in the EU occasioned by the impending exit of the United Kingdom.

An extended deadline for signing of the EPA between the EAC and the European Union, to give member countries more time to review the document and come up with a common position as a bloc, lapsed on the 2nd February 2017.

If there is no resolution and the EPA is not signed Kenya is the only EAC country which is currently classified as a developing country. While least developed countries (LDC) Burundi, Tanzania, Rwanda

and Uganda will still be benefitting from duty-free access under Everything But Arms (EBA)⁴ exports from Kenya will be facing numerous import duties.

If no resolution is found and the EPA is not signed Kenya will have no other choice than to apply for Generalised System of Preferences (GSP)⁵ or GSP Plus treatment. Previously Kenyan products were granted GSP access to the EU market; however, some of Kenya's main export products (live plants and floricultural products)⁶ have been removed from the GSP list from January 2017 (EU Regulation 2016/330 of 8 March 2016). The only other option for Kenya is to apply for GSP Plus status (the exclusion does not apply to countries which benefit from GSP Plus). However, this will require Kenya to ensure that they have ratified and implemented core international conventions relating to human and labour rights, the environment and good governance.

Logistics

Transport and distribution are key considerations when planning for international trade.

Airfreight is quicker but more expensive than sea freight which needs high volume and less perishable products. Also, the increasing international trade in fresh fruit and vegetables has raised concerns about the distance that food travels and the emissions associated with its transport. For these reasons, it is important to choose the right mode of transport to ensure efficiency and product cost-effectiveness to enable it to be competitive in the global market place.

Airfreight

Products like beans and soft fruit are normally airfreighted as a finished product through Nairobi, Kenya. These products on are also trucked in from Tanzania to Nairobi to be airlifted to the Netherlands. Interviews revealed that airfreight logistics including cold chain is perceived to be limited in Tanzania with Kenya currently being the preferred logistical route.

Sea freight

Sea freight is the preferred method of transport for products like avocado, mango, onions etc. A potential disadvantage East Africa has compared to South & West Africa and countries like Mexico and Guatemala is that sea freight is potentially expensive.

Comparing global container shipping prices indications are \$7.000 to \$10.000 per container from Mombasa compared to Peru \$4.500, Brazil \$2.300 and Chilli \$7.500.

However, as indicated during interviews: when looking at the increased cost combined with the large number of boxes a container can hold, the actual increased cost per box/fruit should not be an obstacle to deter from export.

When the global availability is low it can result in higher product prices which enables producers to airfreight products like avocado & mango for a short period until the sea freight containers arrive.

⁴ http://trade.ec.europa.eu/doclib/docs/2013/april/tradoc_150983.pdf

⁵ http://ec.europa.eu/trade/policy/countries-and-regions/development/generalised-scheme-of-preferences/index_en.htm

⁶ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016R0330

End customer

All fresh produce companies have several trade channels but ultimately a large share will end up either direct or indirect with retail.

Retailers normally do not buy direct from source but from pre-approved suppliers who might source direct from their farms in combination of trading with other import companies. These import companies have a multitude of customers which allows them to buy different grades of the product in question as different customers have different requirements.

Provenance and producer story linked to the product can give an advantage to a producer but is only important if the retailer requires this and in most cases, it is deemed of no of real importance.

Market Developments

Avocado

Global avocado consumption is growing by about three percent every year; however, production growth remains a little behind. Consumption is growing rapidly, especially in North America and Europe (especially Benelux, UK, Sweden, Norway the market is growing). Europe did record high prices due to slow supply. In America, prices remain at a reasonable level. Western European markets mostly prefer ready-to-eat Hass avocados, while Eastern European, Greek and Italian customers still often go for green skin avocados, such as the Fuerte and Pinkerton. The popularity of Hass avocados is expected to grow. The biggest challenge in the coming years will lie in the sourcing.

Three years ago, not a single avocado was imported by China and now it is a major import market receiving 30 containers per week. Avocados are becoming a popular import fruit, especially in the big cities on China's East Coast. Mexico and Chile have access to the Chinese market, and last year, Peru also received permission to export. The Peruvian minister estimated China's potential at 50 million dollars.

Even though worldwide investments in the product are on the rise, importers are preparing for a worldwide shortage of avocados in the coming years.

Guatemala has made huge investments in avocado crops. Production has grown by 42% in the last two years. Because of changes in the cycles, the season could be extended from December to March to an almost year-round program.

The supply of Brazilian avocados to the European market is on the rise. This season, a total of 280 containers are expected to be shipped to Europe. The peak is reached in April and last until the second week of May. In the coming years, the acreage is planned to expand. A company reports to have plans to plant 200 new hectares.

In South Africa, strong investments are being made in the cultivation of avocados. A company reports to have plans to go from 700 hectares to 2,000 hectares in the coming years. In total, the country has 15,500 hectares; an acreage which is expected to increase by 500 hectares annually in the coming years. Estimates for the coming season point to a production totalling 12.8 million 4 kilo boxes, which is about 250,000 boxes more than last year. Despite the rainfall recorded in the north of the country, there are still concerns for the coming season. The heat is good for the quality, but some extra rain will also be needed in the short term.

Kenya aims to strengthen its position in the market with the season usually lasting from March to July, however the size of the Hass avocados is small, also because growers are harvesting early to take advantage of the good prices. The main market is Europe, particularly the Netherlands.

Southern China, namely the provinces of Guangzhou and Hainan, has a small avocado production. The planting remains limited and there is no commercial production. Ready-to-eat avocados are a novelty in the market, as they were only recently introduced. Investments are going to ripening facilities and to promotions to further develop this market.

Garlic

China dominates world market and the new garlic will be harvested in early June, in the Shandong Province. There is usually old garlic available when the new harvest begins but this year there is a shortage and many are waiting for the new harvest. Furthermore, there is said to be a lot of market speculation. Assuming these rumours are true, garlic prices will likely increase for some time. The cold has reportedly caused losses over the last few months; some figures speak of heavy losses, but there is yet no certainty about this.

Europe protects the crops grown in EU countries by issuing licenses for the import from other countries. Due to the limited number of licenses, importers must do their best to get an exemption otherwise they face additional costs through the means of duty. Importers wishing to pay only the duty rate of 9.6% must apply for an "A" licence and are only permitted to import a fixed quantity in any given quota period (this is set by reference to the importer's previous trading patterns). Those importers wishing to apply for a "B" licence will be subject to the specific duty rate of €1,200 per tonne as well as the normal rate of 9.6%.

Africa through the EPA should be in a position to circumvent this and trade outside of the quota system whereby importers do not incur extra duty.

Herbs

A European appetite for basil, a versatile aromatic herb in the mint family, has opened a window of opportunity for farmers in Nakuru County in Kenya who are now earning up to \$2000 a month in exports.

International buyers say East Africa meets a paltry 15 percent of their demand for the herb even as markets continue to balloon following discovery of new uses of the herb. "The markets have expressed insatiable appetite for the herb. With our first farmers, we are producing 1.6 tonnes of basil against a demand of 6 tonnes per month from the importer we work with".

A health-conscious middle class is driving the growth of culinary herbs and as the international markets requires other products, Premier Seeds is now preparing to work with the farmers to grow another set of herbs including coriander, oregano, lovage, dill and Melissa in the course of the year.

Limes

Various reports on the lime market in Mexico and Brazil reveal different perspectives. The Latin American countries say they have harvested less and also shipped less to Europe, while a trader in the Netherlands says the opposite, that a bigger volume has been shipped. Israeli growers see potential in the cultivation of limes, partly because of the good prices in Europe. In the US, significantly unstable prices have been reported, resulting in an erratic market.

In Morocco, since 2008 the acreage devoted to lemons and limes has halved, according to figures from the USDA, which combines the data for both citrus fruits. The acreage has fallen from 7,789

hectares in 2008/2009 to 3,820 hectares in 2016/2017. Many growers have switched to the cultivation of mandarins.

Mangoes

African countries are moving forward and have set their eyes on Europe as a destination market.

Europe mostly depends on Peru; this year's mango consumption is estimated at 300,000 tonnes. One in six of these mangoes come from Africa; therefore, there is still room for the African mango to grow in the European market. The vast majority of the fruit is imported from Latin America (460,000 tonnes). Within that category, Peru is the largest supplier, accounting for 70,000 tonnes.

50,000 tonnes of mangoes are expected to be shipped to Europe from the West African countries of Ivory Coast, Senegal, Mali, Burkina Faso and Guinea. In just a few years, Ivory Coast has doubled its exports to Europe, reaching 30,000 tonnes. For African growers, this is quite an achievement, given the phytosanitary issues they have had to deal with. The presence of a fruit fly among the mangoes can result in a whole batch being denied access to Europe. However, the number of reports of such breaches is decreasing thanks to the investment in prevention, especially in Ivory Coast, which has managed to keep the pest under control.

Pineapples

According to a report from September 2016 the pineapple market was in turmoil. Due to a much lower production in Costa Rica, prices in Europe and the United States have risen. In all these markets, sharply higher prices have been reported. In some cases, they have even doubled. Mexico, Panama, Peru, the Dominican Republic and Colombia have all invested in pineapple cultivation and the existing producers are profiting from the high prices.

This was a similar picture in 2015 when it was becoming increasingly difficult to find pineapples in the fruit juice and tinned goods aisle of some supermarkets. The first to be effected are the retail and discount brands. La Laiterie Saint-Denis de l'Hôtel (LSDH), the main retail brand supplier has had to completely stop deliveries to many Casino stores. Other stores, such as Système U and Métro have accepted an increase in prices (prices have increased from €0.55/litre to €0.95/litre in a year).

Due to insufficient stock, pineapple suppliers (Dole, Del Monte, Florida Products...) are prioritising the fresh juice market (pure juice followed by concentrate-based). "There is not enough for everybody", says Emmanuel Vasseneix, " (President of the LSDH) Last year (2014) concentrate prices went from \$1,500/ton to \$3,800/tons and pure juice increased from \$850/ton to \$1,500/ton.

The shortage is due to climate conditions; heavy rain and El Nino affected harvest in the main production countries, Thailand and the Philippines (which supplies the tinned market). Pineapple production in Thailand is also in competition with rice or rubber production which is more lucrative and is replacing the pineapple fields. The shortage in Costa Rica (main supplier of fresh pineapples) is due to the government wanting to keep soil and not plant more acreage. The situation is no better in Kenya, where Del Monte Foods (one of the main fresh and tinned pineapple suppliers) has thousands of hectares that were not producing. They had to shut their factory for four months before Christmas.

Meanwhile, fresh pineapple juice demand has surged in some countries such as the USA, as fruit juices are in fashion. This and the unfavourable exchange rate linked to the increase in the dollar are factors leading to a surge in prices over the last 18 months. The sector hopes the next harvest will bring more stability with it.

Sweet Potato

Sweet potatoes are grown and consumed worldwide. The share of the production that is traded on the world market is relatively small as many countries mainly grow it for the domestic market. Europe is a large importer but the market for sweet potatoes is still relatively small, but it is growing rapidly. In 2014, Europe imported 124,000 tonnes of sweet potatoes, of which 7 tonnes were intended for consumption. Imports of this exotic species have doubled in five years. Supermarkets cater to the increasing demand for sweet potatoes. In Europe, the United Kingdom and the Netherlands are large importers.

The United Kingdom is achieving the most noteworthy figures as regards to sweet potato imports. According to traders, these have recorded a yearly growth of 50%. Most sweet potatoes are imported from the United States, but because of the increasing demand, they are also increasingly looking to other producing countries to cover both domestic consumption and exports. Among these are Spain, which is recording a considerable increase in its production; Portugal, which is a relative newcomer, and Egypt, which has some good varieties for export. In Honduras, there are also good producers, but here the certifications are still sometimes a problem. The Netherlands acts as a transit port to the rest of Europe. The US is the largest supplier, with a market share of seventy percent. Within Europe, sweet potatoes are produced in Spain, Portugal, Italy and Greece.

The American Covington and the Spanish Beauregard varieties, together, have a share of about 95% of the market. The rights for the Covington are owned by the University of North Carolina and it cannot be grown outside the US. A new variety, Evangeline, is emerging in the market.

Tenderstem Broccoli

Tenderstem® is a member of the Brassica family and related to Brussels sprouts, cauliflower and cabbage and is a cross between broccoli and Chinese kale. Tenderstem has seen sales grow 16-fold since 2004, reaching sales worth £68 million last year.

The Chinese kale-broccoli hybrid is marketed as Tenderstem broccoli in the UK by brand licensor Coregeo who, since 2016, is also the pan-European Master Licensor of Bimi®, the European counterpart of Tenderstem broccoli.

With growing demand for the product throughout the continent, a joint venture between Corego, Best Fresh Group and Flamingo Horticulture, a specialist producer and largest grower of Bimi guaranteeing year-round Kenyan supply, has been established under the title FV SeleQt.

FV SeleQt is keen to replicate the success Tenderstem has seen in the UK throughout the rest of Europe, by working together to grow the brand and raise awareness⁷.

Products trends

There is currently a trend towards healthy food or so called superfoods. Although there is no legal or medical definition, superfoods are nutrient powerhouses that pack large doses of antioxidants, polyphenols, vitamins, and minerals and include (but are not limited too):

- ✓ Berries (Blue berry and Goji)
- ✓ Beans
- ✓ Nuts
- ✓ Oranges
- ✓ Sweet Potatoes

⁷ http://www.freshplaza.com/article/166833/FV-SeleQt-see-sales-of-Bimi%C2%AE-treble-in-Europe

- ✓ Broccoli
- ✓ Spinach
- ✓ Garlic

Another development instigated by the retailers is the sale of less than perfect produce, which is "rebranded" and sold to consumers at a reduced price. Programmes like this have expanded across the globe, with retailers and suppliers alike joining together whereby working towards reducing food waste.

Opportunities

From the interviews undertaken the following products were identified as of interest

Product	Product window
Avocado	Feb till Sept
Mango	Oct – Mid Nov
Sweet Onions	End Dec – Mid March
Fresh Garlic	Nov - Feb
Strawberry	Oct - May
Raspberry	Oct - May
Berries	Oct - May
Black Berry	Oct - May
Fine Beans	All year round
Sugar Snaps	April/May & Oct/Nov
Mange Tout	April/May & Oct/Nov
Herbs	Unknown
Limes	Unknown
Pineapple	Unknown

In country packing

A lot of product is packed retail ready, especially products like beans and soft fruit. These are both retail ready packed in bags or punnets at source.

Products like fruit and onions need to be graded before packing and shipping. This is to ensure a uniform product which adheres to the customer's specification.

Interviews revealed that product grading at times is a real issue and there could be an opportunity to set up a packing house which provides an independent service for producer groups to QC and to uniformly pack for export. The pack house could act as independent quality control. They won't have invested interest in the actual product and hence no ownership and financial damage if fruit or veg is rejected at source. This "neutral" position could give the confidence to Dutch exporters using this service.

Supply chain improvements

To improve third party supply chains there needs to be a transfer of skills. It was mentioned on several occasions that there is a perceived lack of expertise and therefore, is a need for more knowledge around growing, sourcing and quality control requirements.

For small holder growers, besides concerns around uniform product quality and increased risk of issues around MRL, the cool chain was a potential issue when dealing with small holder growers. We discussed, with a cold store manufacturer, the possibilities to develop low cost portable cold store units to address these concerns. Celtic have offered to develop initial drawings and an indication of estimated costs. We would have to explore interest from the private sector with this information and discuss viability and if this would alleviate the concerns around cool chain issues.

Organic production is an interesting niche market to explore further, especially for new projects on virgin soils.

Brexit

As discussed on page 8 of this document Brexit could be an opportunity for suppliers producing in Africa to increase their market share for direct supply to the UK. The UK fresh produce market has made big strides in direct sourcing either through vertical integration within the supply chain or through retailers acquiring or creating their own procurement companies.

Investment

There is ongoing investment in Kenya as confirmed by the Dutch embassy⁸. However, desk research and interviews with companied in the Netherlands didn't reveal any future investments in Kenya or Tanzania of any significance. Besides one company investing in a grower by providing a grading machine and to pay for certification, no infrastructure investment opportunities or willingness to invest was identified with the companies interviewed.

⁸ http://www.hortialliance.com/news/dutch-support-to-boost-kenyas-agric-output/

Annex 1 Vegetables imported by EU from Africa

Product		EU 28 imports from Africa		EU 28 imports from world				
code	Product label Value i 2013		Value in 2014	Value in 2015	Value in 2013	Value in 2014	Value in 2015	2015 Africa share
'0702	Tomatoes, fresh or chilled	424,895	490,606	548,638	3,491,859	3,610,784	3,901,879	14%
'0708	Leguminous vegetables, shelled or unshelled, fresh or chilled	420,539	468,489	495,056	763,804	805,674	848,608	58%
'0709	Other vegetables, fresh or chilled (excluding potatoes, tomatoes, alliaceous vegetables, edible	240,314	243,940	303,285	5,214,493	5,096,797	5,857,088	5%
'0703	Onions, shallots, garlic, leeks and other alliaceous vegetables, fresh or chilled	81,414	85,942	90,401	1,356,779	1,228,478	1,329,580	7%
'0701	Potatoes, fresh or chilled	114,120	69,737	68,510	2,378,382	1,576,226	1,628,755	4%
'0713	Dried leguminous vegetables, shelled, whether or not skinned or split	81,140	94,046	64,423	1,190,311	1,223,248	1,223,601	5%
'0712	Dried vegetables, whole, cut, sliced, broken or in powder, but not further prepared	41,875	51,870	63,908	779,962	870,201	913,983	7%
'0711	Vegetables provisionally preserved, e.g. by sulphur dioxide gas, in brine, in sulphur water	35,283	39,395	45,952	241,152	259,918	270,091	17%
'0710	Vegetables, uncooked or cooked by steaming or boiling in water, frozen	34,322	39,514	42,917	2,671,218	2,610,405	2,731,467	2%
'0714	Roots and tubers of manioc, arrowroot, salep, Jerusalem artichokes, sweet potatoes and similar	23,914	30,014	36,294	178,402	229,246	312,534	12%
'0704	Cabbages, cauliflowers, kohlrabi, kale and similar edible brassicas, fresh or chilled	14,575	18,306	23,528	929,825	879,399	1,030,129	2%
'0707	Cucumbers and gherkins, fresh or chilled	6,199	9,986	9,965	1,053,078	1,024,543	1,157,781	1%
'0706	Carrots, turnips, salad beetroot, salsify, celeriac, radishes and similar edible roots, fresh	7,099	7,435	9,512	683,156	585,089	733,451	1%
'0705	Lettuce "Lactuca sativa" and chicory "Cichorium spp.", fresh or chilled	6,469	3,968	2,593	1,282,328	1,194,820	1,373,743	0%

Value is in Euro x 1.000

Source ITC Trade Map - International Trade Statistics Accessed 11/01/2017

Annex 2 Fruits exported To EU from Africa

Product		EU 28 imports from Africa		EU 28 imports from Africa EU 28 imports from world				
code	Product label	Value in 2013	Value in 2014	Value in 2015	Value in 2013	Value in 2014	Value in 2015	2015 Africa share
'0805	Citrus fruit, fresh or dried	828,767	791,247	959,534	5,381,444	5,130,366	5,867,484	16%
'0806	Grapes, fresh or dried	632,784	714,947	748,363	3,409,622	3,472,706	3,528,302	21%
'0803	Bananas, incl. plantains, fresh or dried	511,061	553,734	639,051	4,952,615	5,008,859	5,443,368	12%
'0804	Dates, figs, pineapples, avocados, guavas, mangoes and mangosteens, fresh or dried	370,209	411,668	491,203	2,596,044	2,933,685	3,469,628	14%
'0810	Fresh strawberries, raspberries, blackberries, back, white or red currants, gooseberries and	213,049	278,903	307,549	3,236,219	3,506,103	4,058,920	8%
'0808	Apples, pears and quinces, fresh	331,370	218,178	240,492	3,552,991	2,909,958	3,090,476	8%
'0807	Melons, incl. watermelons, and papaws (papayas), fresh	94,887	117,390	127,055	1,371,385	1,424,559	1,571,203	8%
'0811	Fruit and nuts, uncooked or cooked by steaming or boiling in water, frozen, whether or not	117,029	119,889	117,576	1,921,921	1,819,964	2,044,725	6%
'0809	Apricots, cherries, peaches incl. nectarines, plums and sloes, fresh	127,498	135,171	110,761	2,179,582	1,944,528	2,180,498	5%
'0802	Other nuts, fresh or dried, whether or not shelled or peeled (excluding coconuts, Brazil nuts	43,495	59,142	79,936	4,769,946	5,593,241	7,411,618	1%
'0801	Coconuts, Brazil nuts and cashew nuts, fresh or dried, whether or not shelled or peeled	33,496	44,812	44,291	930,769	1,188,933	1,595,556	3%
'0813	Dried apricots, prunes, apples, peaches, pears, papaws "papayas", tamarinds and other edible	11,175	15,220	21,181	732,465	896,684	1,044,805	2%
'0812	Fruit and nuts, provisionally preserved, e.g. by sulphur dioxide gas, in brine, in sulphur	3,038	2,390	3,313	58,247	57,418	62,423	5%
'0814	Peel of citrus fruit or melons, incl. watermelons, fresh, frozen, dried or provisionally preserved	1,718	2,553	1,944	31,242	33,690	33,403	6%

Value is in Euro x 1.000

Source ITC Trade Map - International Trade Statistics Accessed 11/01/2017

Interviewees

Interviewed	Company	Website
Ruud van Enckevort	Gourmet BV	www.gourmet.nl
Dante Anton	Fruitworld	www.fruitworld.nl
Bas Rensen	FV SeleQt	www.fvseleqt.nl
Jan van der Lans	Van der Lans International	www.vanderlans.com
Koert Michel	Panalpina	www.panalpina.com
Lodewijk van de Vosse	Panalpina	www.panalpina.com
Hans van Gemeren	Celtic Cooling	www.celtic.nl
Maurice van de Lans	Lehmann Troost	www.lehmann-troost.nl
Neville Mchina	Eosta	www.eosta.com
Michael Wilde	Eosta	www.eosta.com

Useful Industry Organisations

Organisation	City	Country	Website
Freshfel Europe	Brussels	Belgium	www.freshfel.org
World Apple & Pear Association	Brussels	Belgium	www.wapa-association.org
Dutch Potato Proccessors Assoc.	Rijswijk	The Netherlands	www.vavi.nl
Groenten Fruit Huis	Zoetermeer	The Netherlands	www.groentenfruithuis.nl/
Fresh Produce consortium	Peterborough	UK	www.freshproduce.org.uk

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