# The European market potential for citrus and tropical juices 

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In the long term, the European import of citrus and tropical juices is expected to show growth of around $1 \%$ annually. General consumption of fruit juices and nectars in Europe is decreasing due to consumers' concerns about calorie and sugar intake. However, citrus and tropical fruit juices are increasingly used as ingredients in low-calorie drinks, smoothies and flavoured waters, maintaining a stable import demand. France, Germany, the United Kingdom, Spain, Italy and the Netherlands offer opportunities for developing country suppliers.

## Contents of this page

1. Product description
2. What makes Europe an interesting market for citrus and tropical juices?
3. Which European countries offer the most opportunities for citrus and tropical juices?
4. What trends offer opportunities on the European citrus and tropical juices market?

## 1. Product description

Citrus and tropical juices mainly consist of the liquid contained in citrus or tropical fruit. Tropical fruit is grown in tropical regions (the climatic zone surrounding the Equator), while citrus fruit more specifically belongs to the genus Citrus. Due to climatic conditions, tropical fruit cannot be produced in Europe, except in a few isolated islands that belong to European countries. Some citrus fruit is grown and processed into juices in Mediterranean Europe. Still, most citrus juices are imported because domestic production cannot satisfy European demand.

Large quantities of tropical and citrus juices intended for export are sold in concentrated form. This is for the practical reason of lowering transport costs, as it saves transport costs for water and packaging. After import, the concentrated juices can be reconstituted by adding water back, previously extracted aroma and sometimes pulp cells. However, demand for not-from-concentrate (NFC) juices is increasing on the European market. Citrus and tropical juices are traded as products that can be kept at room temperature in aseptic packaging or in frozen form.

Due to specific characteristics of the fruit cells, some types of tropical fruit are mostly processed into purees instead of juices. Typical examples are banana and mango. Although those fruits can also be processed into juice (using centrifugation, microfiltration and enzymes), the largest quantities are processed into purees. For final consumers, those purees are usually mixed with other juices (such as apple or orange), as they would otherwise be too thick to drink.

The largest share of citrus juice trade belongs to orange juice, followed by grapefruit, lemon and lime. Other citrus fruit juices such as mandarin, tangerine, pomelo and yuzu are traded in relatively small quantities. The largest share of tropical juice trade belongs to pineapple juice, followed by passion fruit (maracuja).

Citrus and tropical juices are mostly used for direct consumption, or as ingredients in the beverages industry to
produce juices, smoothies, soft drinks and other beverages. They are also used as ingredients in products like fruit preparations, fillings and toppings. High-acid citrus juices (limon or lime) are consumed diluted with water, used as acidity regulators or used as ingredients in drinks. Some juices (such as lemon) are also sometimes processed into powder, usually via a spray drying process, and exported as concentrated powder.

Juice processing technology is constantly evolving, with many innovative solutions and process automations. The typical production process for bulk juices includes the following steps:

1. Fruit reception - whole, undamaged and ripe fruit is preferred for processing. After harvesting, the fruit is transported and unloaded onto specially designed reception lines. Those lines usually include platforms that lift the front part of the truck, allowing gravity to pull and unload the fruit. Another method to unload the fruit from the trucks is to use a water cannon.
2. Washing, cleaning, sorting and inspection - depending on the type of juice, the fruit can be cleaned in different ways. Common processing lines include brush-and-spray cleaning machines and bubble washing machines. If the fruit is stored before processing to improve the sugar-acid ratio and taste, it can be washed later. Before juice extraction, the fruit is inspected and defect fruit is removed.
3. Fruit sizing - sizing is not used for each type of fruit processing, but it is typical in citrus juice production. Sizing allows optimal pressure of the presses in the next steps. If the fruit is too big, for example, high pressure can extract bitter components of the peel.
4. Juice extraction - extraction is performed in different ways, depending on the fruit type and machine design. Different types of grinders, presses, sieves and other equipment are developed by equipment producers such as Bucher Unipektin, Alfa Laval, JBT and Brown. Citrus processing also includes the extraction of oil from the peel. For some types of juices, enzymes are used to increase the juice yield.
5. Juice clarification - after extraction, juice is pulpy or cloudy. This juice can already enter the final processing stages such as pasteurisation, concentration and packing. If the aim is to produce clear juice, then the juice is clarified using centrifugal force and filtration. In big processing lines, different batches of juice can be blended to achieve the optimal Brix-to-acid ratio. If the final product is NFC juice, then the juice is pasteurised and packed. NFC citrus juice processing also includes oil removal from the juice.
6. Evaporation - different types of evaporation equipment are used to remove water from fruit juices. The most common types include the continuous flow of juice through several heated tubes under vacuum. As heat is used to evaporate water from juice, no additional pasteurisation is needed.
7. Recovery of aroma - the water removed during evaporation contains aroma essences. To preserve aroma, the first vapours (rich in essence) are commonly taken from the evaporation tubes and condensed. The acquired liquid is further processed to get a concentrated aroma essence. This essence is commonly sold together with the concentrated juice.
8. Packing - for overseas transport, bulk concentrated juices are often packed in ship tankers. For road transport, juices can be packed and transported in specialised cistern trucks/tankers or in drums. Increasingly, aseptic bags placed in drums are used, as they do not require cold temperatures during transport.

This study covers general information that is of interest to producers in developing countries regarding the market for citrus and tropical juices in Europe. Please see Table 1 with the products and their product codes used for statistical analysis. Please note that fruit purees are not included in the statistical analysis, as there is no officially defined statistical code for these products. When 'Europe' is referred to in this study, it means the
27 Member States of the European Union, plus the United Kingdom, Iceland, Liechtenstein, Norway and
Switzerland.

Table 1: Products in the product group of citrus juices

| 200912 | NFC orange juice |
| :--- | :--- |
| 200919 (and corresponding 8-digit codes) | Concentrated and other <br> orange juices |
| 200921 | NFC grapefruit juice |
| 200929 (and corresponding 8-digit codes) | Concentrated and other <br> grapefruit juices |
| $200939 / 200931$ (and corresponding 8-digit codes) | Other single citrus fruit <br> juices |
| $20093151 / 20093159$ | NFC lemon juices |
| $20093951 / 20093955 / 20093959$ | Concentrated lemon juices |
| $20093111 / 20093119 / 20093191 / 20093199$ | Other NFC single citrus fruit <br> juices |
| $20093911 / 20093919 / 20093931 / 20093939$ | Other concentrated single <br> citrus fruit juices |
| $20093991 / 20093995 / 20093999$ | NFC pineapple juices |
| 200941 (and corresponding 8-digit codes) | Concentrated pineapple <br> juices |
| 200949 (and corresponding 8-digit codes) | Tropical fruit juices |
| 200989 (and corresponding four 8-digit codes) |  |

## Tip:

See our studies on coconut water, mango puree and pineapple juice to learn more about European markets for these specific juice industry products.

## 2. What makes Europe an interesting market for citrus and tropical juices?

Europe accounts for 55\% of the world's citrus and tropical juice imports. European imports of citrus and tropical juices have slightly decreased in value by 1\% on average per year in the 2017-2020 period. During the same period, imported volumes remained relatively stable, indicating a small decrease in import prices. European consumers' concerns about sugar and calories are negatively affecting packed fruit juice consumption. On the other hand, tropical and citrus juices are increasingly used as ingredients in different drinks, maintaining stable
demand.

In 2020, European imports of tropical and citrus juices reached almost 4 million tonnes, worth $€ 4.5$ billion. A lot of this is internal European trade (see Figure 1). The fact that, after being imported, concentrated juices are diluted, often blended with other juices and packed, is 1 of the main reasons for these large, internal European imports and re-exports. This way, volumes are increased, as 1 litre of concentrated juice (depending on the Brix level) usually produces 5 to 6 litres of juice.

Some European countries (such as Spain and Italy) produce citrus juices, but production is not sufficient to satisfy local demand. Europe imported 1.8 million tonnes of tropical and citrus juices from non-European countries in 2020.

In the next 5 years, the European market for citrus and tropical juices is likely to increase with an annual growth rate of $1 \%$. Drivers behind the expected growth are product innovations based on natural ingredients. Tropical and citrus juices are used as ingredients in carbonated drinks, 'low-calorie’ drinks, functional drinks, flavoured waters, energy drinks, smoothies, fruit preparations, confectionery and other products. As consumers are looking for more natural products, manufacturers are increasingly replacing added flavours with juices as more natural ingredients.

Orange juice is the most popular imported juice in Europe, accounting for an almost 80\% share of total imports of all citrus and tropical juices. Pineapple juice follows with $12 \%$, lemon juice with $4 \%$ and grapefruit juice with $3 \%$. Most orange juice ( $51 \%$ ) is imported as low-Brix ( $<20^{\circ}$ ) or NFC juice; $26 \%$ is imported as concentrated juice and $3 \%$ as frozen concentrated orange juice. Grapefruit and other citrus juices are mainly imported in concentrated form, while pineapple and other tropical juices are mainly imported as NFC.

Imports of citrus and tropical juices from developing countries decreased at an average annual rate of -1.9\% over the last 5 years, but the import growth trend was not the same for each type of juice. The strongest average annual import growth was for tropical juices (+3\%), especially for passion fruit. The strongest import decline was for grapefruit juice (-10\%). The import of orange juice declined at an average annual rate of -2\%, but the import of frozen concentrated orange juice increased at an average annual rate of $+3.8 \%$. The import of lemon juice was relatively stable.

## Tips:

See our study on Market Statistics \& Outlook for Processed Fruit and Vegetables for more information on general trade developments within the European processed fruit and vegetables sector.

Check relevant trade statistics using tools such as ITC TradeMap or Access2Markets.

## 3. Which European countries offer the most opportunities for citrus and tropical juices?

As Europe's largest markets for citrus and tropical juices, France, Germany and the United Kingdom are interesting focus markets. Spain and Italy, also processors of citrus fruit, are attractive markets because they consume large quantities of tropical juices. The Netherlands, while it is the largest importer, re-exports most of its imported quantities and is rather a small consumer. However, the country is home to some of the largest European traders, providing distinct opportunities and insights and an entry point for the whole of Europe.

For the entire category of citrus and tropical juices, the Netherlands is the largest importer, accounting for 20\% of all European imports. After the Netherlands come France, Germany, the United Kingdom, Belgium and Spain. However, the leading European importers differ depending on juice type.

For example, the Netherlands is the leading European importer of non-frozen concentrated orange, pineapple, grapefruit, lime and other tropical juices. Germany is the largest importer of frozen concentrated orange juice, while France is the leading European importer of NFC orange and lemon juice. Therefore, you should focus on your specific product to determine your most attractive market in Europe, instead of the entire category of citrus and tropical juices.

European consumption is another important criterion to select the most attractive European markets for citrus and tropical juices. The Netherlands (ranked first for imports) and Belgium (ranked second) are not among the top 6 consumers (Figure 4). This is because these countries serve as trade hubs for the largest orange juice processors and re-export most of their imported quantities. For example, Brazilian leaders Cutrale and Citrosuco have their main trade representations in the Netherlands and Belgium respectively, while Louis Dreyfus has offices in both countries. Aside from the main trade representations at large ports, the companies also have trade offices in other European countries.

Please note that the quantities presented in Figure 4 are estimates of consumed juices, including juice mixes and juice content in nectars. The fruit juice content in nectars is usually around $50 \%$, while the citrus or tropical fruit juice content in mixes is around $25 \%$ on average. Also, keep in mind that most sources present only quantities of retail-packed sold juices, meaning that the real quantities are larger. Real quantities include juices used as ingredients in soft drinks and other products, as well as homemade and foodservice juices squeezed from fresh fruit.

## France: a large and health-conscious consumer of citrus and tropical juices

French imports of citrus and tropical juices decreased at an average annual rate of 2\% between 2016 and 2020, reaching 771 thousand tonnes in 2020. Most imported citrus and tropical juices remain on the local market, as France's re-export is insignificant. NFC and low-Brix orange juice account for $65 \%$ of all imports in the entire category. The import decrease is mainly due to a decrease in the import of orange juice with a Brix level between 20 and $67^{\circ}$, from 117 thousand tonnes in 2016 to 46 thousand tonnes in 2020 due to a general decrease in consumption.

France is the leading European consumer of pineapple juice. Apparent consumption (the difference between imports and exports) of pineapple juice reached 48 thousand tonnes in 2020. Imports of mandarin and lemon juices increased at an average annual rate of $5-6 \%$ over the last 5 years, but most of those juices are sourced from Spain and Italy. The import of passion fruit juice increased at a similar rate of $6 \%$, with Peru as the main supplier, followed by Ecuador.

Spain is France's main direct supplier for the entire category, with a $23 \%$ import share. Spain's main juice export product to France is NFC orange juice, followed by mandarin/clementine and lemon juices. Brazilian orange juice is the most common juice on the French market and is imported both directly and indirectly. In 2020, France imported 170 thousand tonnes of orange juice from Brazil and an additional 150 thousand tonnes from Belgium through the Belgian trade offices of Brazilian companies. Other leading non-European suppliers are Costa Rica (NFC pineapple), Israel (grapefruit), Thailand (concentrated pineapple) and Morocco (orange and frozen orange).

Like in other European countries, French consumers' concerns about the high sugar content in juices have influenced consumption. Consumption of all juices continued to decrease in 2020, but due to the impact of COVID-19, retail sales and at-home consumption performed better compared to out-of-home consumption. Total consumption decreased from 1.65 billion litres in 2010 to 1.24 billion litres in 2020. Orange juice accounted for
$43.1 \%$ of the market, pineapple for $3.5 \%$, other single tropical fruits for $2.1 \%$, grapefruit for $1.7 \%$ and mandarin/clementine for $1.7 \%$.

Around $45 \%$ of fruit juices and nectars on the French market are packed as private labels for retail chains. The leading retail chains include Carrefour (Carrefour, Carrefour Extra and Carrefour Bio labels), Leclerc (Jafaden and Bio Village labels), Intermarché (Paquito label), Auchan (Auchan and Auchan bio labels) and Super U (U label). Private labels are often packed by European bottlers such as Refresco, which recently acquired another bottling company - Britvic. The leading independent juice brand in France is Tropicana (recently sold by Pepsico), followed by Joker (Eckes Grannini).

Figure 5: 'Joker brand' of organic orange juice in France

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Source: photo by kiliweb via Open Food Facts

Figure 6: Pineapple juice private label 'Carrefour Extra'

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Source: photo by org-carrefour via Open Food Facts

Demand for organic and low-calorie juices in France is strong. To answer consumers' demands, French producers are innovating to make juices 'lighter'. A successful example is the leading nectar brand Pressade (owned by Britvic), which has launched several organic nectars without added sugar. Because of this, some Pressade drinks can be labelled ' $A$ ' in the Nutri-Score front-of-pack labelling system, making them more attractive, as most juices are labelled 'C' or ' $D$ '. The main strategy for a better positioning in the Nutri-Score system is to decrease calories. Other approaches are to add coconut water (like Joker) or mix fruit juices with milk and water (like Danao).

## Tip:

Find French juice processing, bottling and trading companies among the members of the French Juice Association (UNIJUS).

## Germany: the largest organic market in Europe

Germany is the largest juice market in Europe, with a very strong and increasing offer of organic juices. However, apple juice is more popular than citrus and tropical flavours. German imports of citrus and tropical juices have increased at an average annual rate of $2 \%$ over the last 5 years, reaching 590 thousand tonnes in 2020. Most of these imported juices are used for domestic consumption, but large quantities are also exported to other European countries, with France and the United Kingdom being the main markets.

NFC and low-Brix orange juices are the most imported product of the entire category, representing more than half of total imports in quantity. NFC orange juice is a fast-growing category, with $8 \%$ average annual import growth since 2016. Tropical juices (not counting pineapple) show the largest import growth, increasing from 3.7 thousand tonnes in 2016 to 6.1 thousand tonnes in 2020. Significant quantities are imported indirectly via Austria from large traders such as Agrana or through the Austrian trade office of Brazilian processing giant Citrosuco GmbH.

Brazil is the leading supplier of citrus and tropical juices to Germany, accounting for more than $40 \%$ of imports, with orange juice as the main product. The Netherlands is the second supplier with $18 \%$, also with re-exported Brazilian juice as the main product. In fact, orange juice of Brazilian origin represents more than $50 \%$ of all citrus and tropical juices on the German market. After Brazil, the leading developing country suppliers to Germany are Costa Rica (mostly pineapple), South Africa (grapefruit), Mexico (frozen orange and lime) and Argentina (lemon).

After import, most citrus and tropical juices are diluted, processed and packed. Consumption of juices in Germany is decreasing because of the (wrong) consumer assumption that juices contain high amounts of added sugar and additives. The German Juice Association is educating consumers that juices are made of 100\% fruit and that additives are not allowed, but those efforts are still not sufficient. Per capita consumption of juices and nectars in 2020 was 30 litres, which is 6 litres less than in 2010. Total consumption of fruit juices and nectars in Germany is estimated at 2.5 billion litres, of which nearly 900 million litres are citrus and tropical juices.

According to the German Juice Association, orange flavour accounts for 1 quarter of the retail sales of juices and nectars. The real share of consumption is larger (more than one-third), as it includes additional quantities in freshly squeezed oranges, smoothies and other drinks. Citrus and tropical juices are very popular ingredients in juice mixes with the addition of vitamins, called multi-vitamin juices. Their use as an ingredient in smoothies, functional drinks and flavoured waters is also increasing fast.

Entering the German juice market is challenging, as import is concentrated among and dominated by only a few large industrial suppliers. Although there are more than 300 juice bottlers in Germany, most of them do not import raw material directly, but are supplied through big traders. The leading citrus and tropical juice importers and industry suppliers in Germany include Döhler and Austrian companies with facilities in Germany - Agrana (Agrana Fruit Germany) and Grünewald (Ernteband Fruchtsaft). Examples of other industry suppliers are Carrière, Johs.Thoms, Saprex and Juice Trade.

Germany, being the largest European organic market, is especially attractive for organic juices. For example, $31 \%$ of lemons sold in Germany (often used for lemonade) are organic according to a Biofach 2020 presentation.

Most of the leading retail chains in Germany offer their own organic private labels. A large share of organic juices is sold through specialised organic retailers, such as Denn's, Alnatura, dm, Basic, Bio Company, eblNaturkost and Super Biomarkt.

More than $40 \%$ of juices and nectars in Germany are sold as private labels of leading retail chains. Leading private labels include ‘Solevita' (by Lidl), ‘Sooniger' (by Aldi Nord), 'rio d'oro' (by Aldi Süd), 'Rewe Beste Wahl’ or 'Ja' (by Rewe) and 'Edeka'/'Edeka Bio' (by Edeka). Private labels are often packed by specialised bottlers such as Refresco (the largest European bottler headquartered in the Netherlands), riha WeserGold, STUTE Nahrungsmittelwerke and Niederrhein-GOLD. Retail chain Edeka produces its own juices using the factories of Albi and Sonnländer.

Figure 7: Organic orange, mandarin and coconut water juice with lower sugar content

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Source: Autentika Global

Figure 8: Tropical juice mix with added vitamins
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Source: REWE

Leading bottlers of own brands in Germany are Valensina, Eckes Granini (brands Hohes C and Granini) and Pepsico (soft-drink brand Punica). Citrus and tropical juices are also used in smoothies, and Germany is the second-largest consumer of smoothies in Europe. The leading smoothie brand in Germany is TrueFruits, followed by the British brand Innocent (owned by Coca-Cola). Low-calorie drinks such as flavoured waters often use lemon, lime and orange juices as their main ingredients. Vio Bio Limo by Coca-Cola is an example of this.

## Tips:

Find German traders of fruit purees in the German company directory - Wer Liefert Was.
Stay up to date on the German fruit juice industry by visiting the website of the Association of German Fruit Juice Industry (in German only).

## The United Kingdom: the main smoothie market in Europe

The United Kingdom is the third-ranked importer of citrus and tropical juices in Europe, with a decreasing import trend until 2019. The average annual import decrease of this category of juices was $3 \%$ over the last 5 years. However, in 2020, partially due to the impact of COVID-19, the market started to recover. Imports of most juices increased, reaching 524 thousand tonnes. Orange juice accounts for more than $80 \%$ of the entire category. Strong import growth was also noted for NFC pineapple, concentrated orange, mandarin and lemon juices.

Due to consumers' concerns about sugar and calories, British consumption of juices decreased until 2019, but it increased in 2020. According to the British Soft Drinks Association, consumption of juices including smoothies and coconut water reached 930 million litres. Citrus and tropical juices make up more than two-thirds of this amount. The most popular flavour is orange with a $63.3 \%$ market share in 2020, while pineapple accounts for $3.5 \%$. In nectars, tropical flavours account for a market share of around $4 \%$.

The leading supplier of citrus and tropical juices to the United Kingdom is Belgium, with a $31 \%$ import share in 2020 , followed by Spain ( $24 \%$ ), Germany ( $12 \%$ ) and the Netherlands ( $10 \%$ ). Belgium, Germany and the Netherlands mostly act as suppliers of Brazilian orange juice for the British market. Direct imports from Brazil are relatively small (5\%), but again, they mostly go through the offices of Brazilian companies such as Burlingtown UK (part of the Brazilian company Cutrale).

British importers buy relatively small quantities of citrus and tropical juice directly from origin. They mostly import from other European suppliers. Spain is gaining a bigger share of the British market, with an annual export growth of $16 \%$. García Carrión (Don Simon brand) is 1 of the leading Spanish suppliers to the British market. Aside from Brazil, the supply from developing countries is small, but some countries - such as the Philippines (coconut water and concentrated pineapple), Thailand (pineapple) and Mexico (lime) - are increasing their exports to the United Kingdom.

In the United Kingdom, private labels dominate the juice market with a share of more than $50 \%$. The leading retailer is Tesco, followed by Sainsbury's, Morrison, ASDA and Aldi. The largest quantities of juices, nectars and soft drinks for private labels in the United Kingdom are bottled by Refresco. Refresco is a direct juice importer and has 6 bottling and blending factories in the country. Next to private labels, Refresco also bottles brands such as Innocent, Ocean Spray, Del Monte and Um Bongo. The leading independent brand in the United Kingdom is Tropicana, followed by Innocent.

Opportunities for emerging suppliers can be found in selling citrus and tropical juices as ingredients for drinks manufacturers. British drinks producers are very innovative, experimenting with new and healthier solutions. For example, the United Kingdom is the largest European market for smoothies. Also, sales of NFC juices are increasing. Other innovations include juice shots (such as with turmeric or ginger) and drinks with functional
ingredients (like vitamins, amino acids, kombucha, aloe and cannabidiol). Some of the leading suppliers of tropical juices as ingredients are Symrise (formerly Cobell, as Symrise acquired Cobell), Kenegrade and Gerald McDonald \& Company.

Fairtrade-certified juices provide another opportunity in the British market. The United Kingdom is the largest Fairtrade market in Europe, with over 400 companies licensed to use the Fairtrade logo on products.

## Tip:

Learn more about the fruit juice market in the United Kingdom by visiting the website of the British Soft Drink Association.

## Spain: a preference for tropical juices

Spain may not be the most attractive market for orange, mandarin and lemon juices, as the country has its own production and the largest citrus processing capacity in Europe. On the other hand, Spain is an attractive market for tropical juices, being the third-largest consumer of this juice category in Europe. Spanish imports of citrus and tropical juices have decreased by 5\% annually on average since 2016, reaching 126 thousand tonnes in 2020. The reason for this negative import trend was the lower import of orange juices with a Brix level between 20 and $67^{\circ}$.

NFC pineapple juice is the most imported juice of the entire category, accounting for a $19.3 \%$ share, closely followed by NFC orange juice with $19.2 \%$. Brazilian orange juice is the most imported subcategory, but is mostly imported from the trade offices of Brazilian companies in the Netherlands and Belgium. After orange and pineapple, lemon juice is the next most imported category, with an $11 \%$ share. Lemon juice is imported to supplement domestic processing, which is much lower than that of orange and mandarins.

The leading supplier of citrus and tropical juices to Spain is the Netherlands (mostly Brazilian orange juice) with a $19 \%$ share, followed by Costa Rica (pineapple juice) with $17 \%$ and Belgium (Brazilian orange juice) with $13 \%$. After Costa Rica and Brazil, the leading developing country suppliers are South Africa (lemon juice), Argentina (lemon juice), Mexico (lime juice), Thailand (pineapple juice), Kenya (pineapple juice) and Vietnam (passion fruit juice).

According to 'Financial Food' (based on combined Nielsen and Kantar data), the consumption of fruit juices in Spain has continued to decrease despite the impact of COVID-19. The total volume of fruit juices and nectars sold in 2020 was estimated at 734 million litres. Fruit juices accounted for $41 \%$ of consumption, while the remaining $59 \%$ were nectars (with a $25-99 \%$ juice content). Orange juice is the most popular flavour with a share of around $36 \%$, followed by pineapple with $26 \%$. Other tropical fruits account for around $15 \%$.

Private labels account for around 40\% of Spanish retail sales of citrus and tropical juices. The leading private labels are 'Hacendado' (by Mercadona), Carrefour/Carrefour BIO (by Carrefour), Dia (by Dia), Solevita (by Lidl) and Eroski (by Eroski). The 2 largest bottlers supplying private labels in Spain are J. García Carrión and AMC. The leading juice brands in Spain are Don Simon (by J. García Carrión) and Juver (now part of the Italian group Conserve Italia). Examples of ingredient traders are Universal Iberland, Altex and Quirante Fruits.

## Tip:

Learn more about the Spanish juice sector from the website of the Spanish Association of Juice Producers (AZOZUMOS) (Spanish only).

## Italy: import growth from developing countries

Italy is another European country with its own significant production of citrus juices. However, Italy provides opportunities for developing country suppliers, as the country cannot produce enough for the local market and imports citrus juices (especially lemon) from other destinations. Also, Italy is a significant importer of pineapple and other tropical juices. Over the last 5 years, Italian imports of citrus and tropical juices increased at an average annual rate of $5 \%$, reaching 74 thousand tonnes in 2020.

Concentrated pineapple juice with a Brix level below $67^{\circ}$ is the most imported juice of the entire category, accounting for $16 \%$ in 2020. Lemon juice accounted for $14.4 \%$ of imports, followed by NFC orange juice (14.2\%) and concentrated orange juice with a Brix level below $67^{\circ}$. The largest annual import growth since 2016 was noted for NFC lemon juice ( $41 \%$ ) and frozen concentrated orange juice with a Brix level below $67^{\circ}(11 \%)$. In the subcategory of tropical juices, the largest annual import growth of $18 \%$ was for passion fruit and mango juice.

The leading supplier of citrus and tropical juices to Italy is the Netherlands, with a $28 \%$ share. The Netherlands mainly supplies Italy with concentrated pineapple juice of Thai and Indonesian origin. Other strong European suppliers are Spain (mandarin and lemon juice) and Germany (mostly orange juice of Brazilian origin). Developing country suppliers gaining share on the Italian market are Brazil (concentrated orange), South Africa (concentrated orange and lemon), Bolivia (lemon), Egypt (mango), Mexico (lime) and the Philippines (concentrated pineapple).

The total annual consumption of fruit juices and nectars in Italy is estimated at more than 600 million litres. Due to consumers' sugar concerns, the consumption of juices has been decreasing since 2015, but this decline slowed down in 2020 under the influence of COVID-19. Consumption of smoothies and fruit-milk drinks is increasing. In the fruit juice category (not counting nectars), orange juice flavour accounts for around 30\% (33 million litres), followed by pineapple (22\%), tropical (19\%) and grapefruit ( $12 \%$ ). Organic juices have a market share of around $3.5 \%$ in volume.

Almost $35 \%$ of juices and nectars in Italy are sold as private labels. The leading private labels are of retail chains Conad, Coop, Selex Group, Esselunga, Carrefour and Eurospin. Retail chain Coop has introduced a Fairtrade label of Brazilian orange juice - Solidad. A large share of private label juices are blended and bottled by the leading juice processor - Conserve Italia. Other bottlers of private labels include La Doria Group, Fruttagel, Zuegg, Ortogell and Sterilgarda. Leading juice brands are Santal (by Parmalat), Yoga (by Conserve Italia) and Skipper (by Zuegg).

## Tip:

Find some of the Italian juice companies among members of the Italian Food Association.

## The Netherlands: the main European trade hub

The Netherlands is by far Europe's largest importer of citrus and tropical juices. Since 2016, imports increased at an average annual rate of $6 \%$, reaching a record 1.05 billion litres in 2020 . However, it is estimated that around $90 \%$ of all imported citrus and tropical juices are re-exported to other destinations, primarily Germany and France. The remaining $10 \%$ is consumed domestically, which means that the Netherlands is actually a rather small market.
large imports is the presence of Brazilian producing giants in Rotterdam - Cutrale (Continental Juice BV) and Louis Dreyfus. Also, the leading European processor and trader, Döhler, sells large quantities of juices through its Dutch representation (Doehler Holland BV). Examples of other Dutch traders of tropical and citrus juices are SVZ, Ariza (specialised in organic products), Prodalim, Verbruggen Juice Trading and Santos Enterprise Food.

After orange juice, pineapple juice accounts for the largest import share with 15\%, followed by grapefruit juice (5\%), lemon juice (4\%) and tropical fruit juice (3\%). The largest import growth was noted for NFC pineapple juice, for which imports almost doubled in 5 years from 4.1 thousand tonnes in 2016 to 8 thousand tonnes in 2020. Other juices with particularly strong annual import growth were concentrated pineapple (13\% average growth), NFC grapefruit juice (12\%) and passion fruit (10\%).

Retail sales of fruit juices and nectars in the Netherlands decreased from 335 thousand litres in 2011 to 169 thousand litres in 2019. Under the influence of COVID-19, sales increased again in 2020 to 175 thousand litres. Mixed flavour juices and nectars are the most popular in the Netherlands, accounting for 45\%, followed by orange flavour (27\%). Tropical juices are popular ingredients among Dutch producers of mixed flavour juices. Those mixed flavour juices are usually labelled with names such as 'Tropisch/Tropical', 'Exotisch/Exotic' or 'Multivitamine'/'Multivitamin' and contain some proportion of citrus and tropical juices.

Private labels of juices and nectars account for half of the total retail sales. The leading retail chain, Albert Heijn (owned by Ahold Delhaize), sells juices under its own 'AH' label. Most of the juices for Albert Heijn are packed by the largest European bottler Refresco. To make the supply chain of orange juice more transparent, Albert Heijn, Louis Dreyfus and Refresco are using a block chain technology developed by Supply Chain Information Management (SIM). By scanning the QR code on the package, the consumer can see the supply route.

The leading independent juice brands, Appelsientje and CoolBest, are produced by the company Riedel. Other juice, nectar and soft drink producers include Vrumona (part of the Heineken group), Infra, Mogumogu and Hoogesteger. Citrus and tropical juices are increasingly used in low-calorie drinks such as flavoured waters (like SPA fruit lemonades).

## Tip:

Keep up to date on the fruit juice market in the Netherlands by contacting the Dutch Association for soft drinks, mineral waters and juices (Dutch language site).

## 4. What trends offer opportunities on the European citrus and tropical juices market?

To counteract the downward trend in juice consumption, the industry is turning to new, innovative and sophisticated flavours and mixes. Efforts have focused on the NFC (not-from-concentrate) and smoothie sectors with fruit and vegetable mixes that are lower in sugar and the addition of functional ingredients.

To find out more about general trends, read our study about Trends on the European Processed Fruit and Vegetables Market.

## Immunity-boosting and functional drinks

The recent outbreak of COVID-19 has contributed to the development of many immunity-boosting products, including juices. According to research by Mintel, the COVID-19 outbreak has prompted $45 \%$ of consumers in Europe to add more nutrients into their diet, while $29 \%$ has reported being more interested in foods that can support your immune system since the start of the pandemic.

Vitamin C is already an established ingredient in juices and nectars, mostly because of its antioxidant properties. COVID-19 has contributed to the development of drinks with more added nutrients that can have a positive impact on the immune system. These drinks often use citrus and tropical juices as ingredients with added complex vitamins, minerals (especially zinc) and probiotics.

Certain types of tropical fruits and juices are promoted to European consumers as products with specific health benefits. Some claims for those products are based on clinical research, but some products still need more research to support marketing claims. Popular tropical juices include açaí berry (high antioxidant content), acerola (rich in vitamin C), Aloe vera (treats constipation and is rich in antioxidants), noni (may improve immunity and joint health), ginger (treats nausea and seminal motility) or turmeric (treats inflammation and symptoms of osteoarthritis).

An important development connected to juice functionality is the rising popularity of so-called 'juice shots'. These are juices in small packaging (usually of 100 ml ) with functional ingredients. Especially popular are 'shots' with ginger, as ginger gives a pungent and spicy sensation. Other popular shot ingredients are turmeric and red juices such as pomegranate, beet or Aronia. Some European retailers have introduced private label shots, such as Lidl and Rewe. Popular brands in Europe are Live Fresh (Germany), Plenish (United Kingdom) and Sonatural (Portugal).

## Low-calorie drinks

Due to consumer perception of the sugar content in juices, the general consumption of juices in Europe is decreasing. To educate consumers, provide juice facts and stimulate consumption, the European Fruit Juice Association (AIJN) has launched a campaign, 'Fruit Juice Matters', and has established a Fruit Juice Science Centre. Despite these efforts, the consumption of fruit juices is decreasing, also influenced by promotional activities from soft drink manufacturers. Some carbonated drinks have better 'Nutri-Score’ ranks than fruit juices, which is used in promotion.

1 of the problems that the EU industry is facing is that the statement 'no added sugar' is not allowed for fruit juices. However, this statement is allowed for other drinks, which led to the development of many new lowcalorie drinks such as flavoured waters and carbonated, energy and other soft drinks. For example, it is expected that energy drink consumption will continue to increase at an average annual rate of more than $6 \%$. Citrus and tropical juices are consumed less often as pure juices and are more often used as ingredients in those drinks.

Generally, fruit juices are perceived as more natural than most soft drinks (such as carbonated drinks), so producers are innovating to make juices lower in calories. New low-calorie juices are appearing on the market, such as fruit and vegetable mixes, juices with coconut water and juices with an increased proportion of lowsugar fruit such as raspberry puree.

## Popularity of smoothies

The popularity of smoothies has increased over the last decade. Smoothies can be defined as a blended fruit puree with a thick, smooth texture, often with added milk, yoghurt or fruit juice. Smoothies have become a popular option for breakfast in Europe, or a kind of healthy liquid snack between main meals. Home-prepared smoothies are usually made by blending fresh or frozen fruit and vegetables with the addition of water, fruit juice or milk.

The smoothie processing industry typically uses fruit purees blended with juices as the main ingredients. The fruit purees give the drink its typical thickness and smooth texture. Popular purees are banana and apple. Citrus and tropical juices are popular smoothie ingredients to add specific flavours and colours. Tropical types of smoothies are usually prepared by blending citrus and tropical juices with other fruit purees such as mango, banana, apple, passion fruit and orange.

The global market for smoothies is forecast to increase at an average annual rate of 7-9\% until 2025. 1 of the
trends supporting this outlook is the decreased consumption of sugars. Smoothies can be produced with a lower average sugar content than fruit juices. The lower sugar content is achieved by combining fruit with vegetables and milk or water. The addition of water is not allowed in $100 \%$ fruit juices, which leads to a healthier consumer perception of smoothies compared to fruit juices.

## Organic citrus and tropical juices

Consumption of organic citrus and tropical juices is increasing, following a general organic food growth trend. According to a report by the European Commission, the most imported organic juices in 2020 were from Mexico (21,500 tonnes), Turkey (18,900 tonnes), Brazil (4,900 tonnes) and Peru (1,200 tonnes). Citrus and tropical juices are also mixed with fruit and vegetable purees to create more attractive flavours in smoothies and other organic drinks.

An interesting example of a developing country supplier of organic citrus and tropical juices is the Peruvian company Frutosa. Frutosa is a private venture, supported by several associates, including the Pronatur growers collective, which supplies organic fruit for the production of purees. Frutosa successfully entered the European market in partnership with French aromatic and fruit ingredients supplier Astier Demarest.

## Sustainability

Many juice processors in Europe have set their own sustainability goals to accelerate achieving European goals, such as carbon neutrality by 2050. Making operations more sustainable is directly related to the sourcing of raw materials from developing countries. For example, suppliers who use bioethanol and bioplastics are preferred over suppliers who use fossil fuels. Certified juice drinks showed a double-digit growth of $14 \%$ in the previous year. Read more about sustainability in our market entry study for citrus and tropical juices.

## Tips:

Suggest new product developments such as low-calorie combinations or new flavours to your buyers. European producers are constantly looking for innovations to increase their sales or diversify from competitors. For example, yuzu flavour is promoted by European ingredient suppliers and is already used in flavoured waters, soft drinks and sauces.

Check the websites of European trade shows and exhibitions to discover the newest trends. The most important trade fairs in Europe relevant to citrus and tropical juices are SIAL (France, every even year in October), Anuga (Germany, every odd year in October) and BioFach (Germany; organic products, every year in February).

This study was carried out on behalf of CBI by Autentika Global.

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