Entering the European market for pineapple juice

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Food safety certification, combined with reliable and frequent laboratory testing, can help create a positive image for pineapple juice manufacturers wishing to export to Europe. Sustainable manufacturing and corporate social responsibility measures will help give developing suppliers a competitive advantage.

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1. What requirements must pineapple juice comply with to be allowed on the European market?

All foods sold in Europe must be safe to consume. EU regulations cover aspects from the licensing of additions to banning dangerous pollutants. Food packing information labels are also strictly regulated. Private requests by buyers are becoming as significant as regulated ones. Exporters have to keep constant track of market standards as over 60 distinct pesticide residue regulations changed in 2020 alone.

What are the mandatory requirements?

All juice products sold in the European Union, including pineapple juice, must be safe. This applies to both domestic and imported products. Pesticide residues are carefully controlled. The European Juice Directive defines the product composition of juices. Fruit juices may not be labelled as such if they contain added sugar, water or colouring.

Microbiological contaminants in pineapple juice

Pineapple juice that is not properly pasteurised can be contaminated by bacteria, yeasts and moulds. Such microorganisms may not exceed the levels set in the European regulation on microbiological criteria for food or in EU member states' own national laws. Most European purchasers require laboratory testing for microbiological contamination as part of product specifications.

With the exception of acid-tolerant bacteria such as *Lactobacillus* and *Leuconostoc*, bacteria cannot easily survive in juices due to their acidity. As a rule, 1 ml of juice should contain no more than 100 acid-tolerant bacteria, yeasts or moulds. However, European buyers may set different limits. Disease-causing bacteria such as *Salmonella* and *Listeria* must be completely absent. *Escherichia coli* may be tolerated at extremely low concentrations, such as less than 10 per ml.

Alicyclobacillus is a heat-resistant bacterium that can survive the pasteurisation process used in the fruit juice industry. Though not dangerous to humans, this bacterium can change the taste of juice. Washing the fruit, using clean, sterilised water, cleaning equipment and filters, and sampling periodically to avoid contamination

are all good practices for producers.

Heavy metals

Lead, cadmium, mercury and tin are all banned under the European Union's food contamination law. European buyers almost always test juices for heavy metals. The maximum allowable lead concentration in fruit juice is 0.05 mg/kg. Tin concentrations in juice are limited to 100 mg/kg. Because tin coatings degrade, tin used to be detected in canned juices and other beverages. However, with the introduction of different coatings and packaging of most juice in cartons, this is hardly a problem.

What additional requirements do buyers often have?

Packaging requirements

Packaging for pineapple juice should protect the product's organoleptic and quality characteristics and protect it from bacteriological and other contamination (including from the packaging material), moisture loss, dehydration and, where appropriate, leakage, and should not pass on any odour, taste, colour or other foreign characteristics to the product.

The most common export forms of concentrated fruit juice packaging are aseptic or sterile-filled and include: 20 litre bag-in-box, 20 litre plastic container, 200-250 litre steel drum, 200-250 litre plastic drum, stainless steel container (200 litres and 800 litres), 1,000 litre foldable container and 25,000 litre truck tankers.

Retail packaging for fruit juices in European markets is mostly cartons (62.7%), followed by plastic and glass.

Quality requirements

The primary quality standards for pineapple juice are colour, which is usually golden yellow to amber, flavour and odour, and Brix level. These directly impact product pricing. Under the standard trade classification, the highest classification for pineapple juices is a Brix level above 67. However, in European industry practice, bottlers tend to use concentrated pineapple juices with Brix values of 60-61 or 65. Under European Union law, the minimum Brix level for reconstituted pineapple juice is 12.8.

Another quality criterion is pulp levels, which vary but are typically between 6% and 18% in concentrated pineapple juice. Importers may demand higher pulp content, as visible pulp in juices is becoming more popular among European consumers. The main parameter defining product quality and price is citric acid level. In concentrated pineapple juice, this is usually between 2% and 4%. Pineapple acid levels vary depending on the variety and country of origin. Smooth Cayenne is the most common pineapple variety used for juice production in Asian countries, while MD2, or Golden Pineapple, is the most prevalent in Costa Rica. Another important quality parameter is the Brix-to-acid ratio. Juice with a higher ratio is considered better quality. Golden Pineapple juice typically has a 23:28 ratio, whereas Smooth Cayenne juice has a 15:20 ratio. However, the MD2 variant's lower ratio (and sweeter taste) make it suitable for Not from Concentrate Juices (NFC).

Certifications as a guarantee

Food safety certification is currently required by almost all European food importers. The main improvement in the fruit juice industry is a voluntary control system created by SGF, which aims to promote industry safety, quality and fair competition through self-regulation.

The most popular certification schemes for citrus and tropical juices are:

- International Featured Standards (IFS)
- British Retail Consortium Global Standards (BRCGS)
- Food Safety System Certification (FSSC 22000)
- SGF Voluntary Control System

SGF certifies fruit-processing enterprises and fruit juice packers, bottlers, merchants and brokers, as well as transport companies and cold shops in nearly 60 countries throughout the world.

Labelling requirements

The juice product must be labelled as pineapple juice or concentrated fruit juice. If it contains added water or/and sweeteners, the product must be labelled as nectar and not fruit juice under EU Fruit Juice Directive 2012/12. Pineapple nectars must state the percent by volume of pineapple juice on the packaging, which must be at least 50%. However, nectar imports are small in most of the European Union. Pineapple juice (including concentrate) labels must specify if and how much lemon or lime juice has been added, with a maximum of 3 g per litre of juice.

Retail packaging labels must comply with EU Regulation 1169/2011.

In export bulk packaging, the required information must be placed either on the container or in accompanying documents, except that 'pineapple juice' or 'concentrated pineapple juice' and the manufacturer or packer name and address must appear on the container. Product specifications usually state the Brix and acid levels.

Allergen labelling (in which allergens must be identified in the list of ingredients) and rules for non-pre-packaged products, especially those sold in restaurants and cafés, are critical. An important allergen in the beverage sector is sulphur dioxide (SO2), used in manufacturing soft drinks. The maximum allowable amount of sulphur dioxide and sulphites is 10 mg/kg.

Payment terms

Before making any international transaction, it is important to sign a contract of sale. This defines the terms and method of payment, which may vary in how much security they give you. When exporting your first shipment, ask for an advance payment by bank transfer (safest option) or letter of credit (second best, but may come with added costs). Some European importers may pressure you to accept deferred payment. This is fine if you have export insurance.

You are advised to insure your payments and goods, especially for higher volumes, to offset risks such as an importer's failure to pay, product damage or theft and currency fluctuations, among others. Export credit insurance is the most common type of insurance for processed fruit and vegetable exports. This is offered by export credit agencies, which can be private or government-owned.

What are the requirements for niche markets? Organic certification

Organic certification schemes are increasingly popular in Europe. Although traditionally reserved for niche markets, organic products are now becoming mainstream. However, certain types of organic certification such as 'biodynamic'[TC-VU1] (Demeter or BDA) can still be considered a niche requirement. Organic products can only be imported into Europe with an electronic certificate of inspection (e-COI). Each batch of organic juices imported into the European Union must be accompanied by an electronic certificate of inspection, as defined by the regulation defining imports of organic products from third countries. The e-COI must be generated via the Trade Control and Expert System (TRACES).

Tips:

See the European Fruit Juice Association Code of Practice for specific guidelines on the manufacturing of fruit juices and nectars. For example, celluloses are not permitted in the European Union, so cannot be used in the liquefaction process to extract juice for sale to European Union member countries.

Obey the rules and do not add banned additives to your juice product. Modern laboratory testing

methods can easily detect the presence of added sugars and water in pineapple juice. Building a strong reputation in European markets takes effort and money, but is quickly destroyed if businesses are caught with contaminated items.

For information about maximum residue levels (MRLs) for pineapple juice, see the EU MRL database, which contains all harmonised MRLs. Maximum residue values for 457 different pesticides have been defined for pineapples.

To begin trading with Europe, read the European Commission's Guide for export of goods.

2. Through what channels can you get pineapple juice on the European market?

The retail channel distributes pineapple juice throughout Europe. Juices from countries outside Europe are rarely imported directly by retail chains. Instead, specialised bottling firms pack juices as private labels under subcontracting agreements which chains then sell under their own brands. Although some bottling and blending businesses import juices themselves, the majority are supplied by specialised importers. The most effective way to enter the European fruit juice industry is through importing businesses with expertise in juice and juice ingredients.

How is the end market segmented?

The retail market sells the highest volume of pineapple juice across Europe. The majority of these sales are in supermarkets and discount stores. In 2020, the COVID-19 pandemic led to a dramatic drop in out-of-home consumption. The closure of hotels and restaurants led demand to shift towards home consumption.

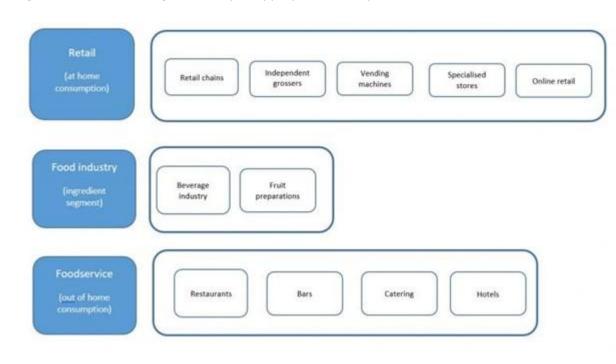


Figure 1: End-market segments for pineapple juice in Europe

Source: CBI

Retail

Retail chains mostly receive supplies from **bottling** and blending firms. The retail industry has recently become more split between discounters and high-level segments, which is a relatively new trend. However, this has not affected raw material suppliers much as many bottling firms pack cheaper private label juices in addition to more expensive commercial brands.

Key features defining the European retail food industry include consolidation, market saturation, intense rivalry and low pricing. The biggest shift now affecting the retail industry is a substantial rise in online sales as a result of the COVID-19 pandemic.

Some sub-segments (points of sale) of the European pineapple juice retail segment include:

- Retail chains: according to 2020 turnover figures, retailers with the highest market shares in Europe are Schwarz, Aldi, Carrefour, Tesco, Rewe and Edeka. More than half of juice brands sold in retail chains are independent brands. The remaining brands are marketed under the retailer's private label.
- Specialised stores: ethnic stores that sell Asian food are another opportunity for entering the market. However, these stores do not have to compete directly with the main retail brands.
- Ethical stores: ethical stores are a sub-segment of the retail industry with business prospects for Fairtrade and other ethically and environmentally responsible vendors. Demand for goods with Fairtrade certification is strong in the United Kingdom and the Scandinavian countries of Denmark, Norway and Sweden.
- Vending machines: many beverages are sold from vending machines, which are common throughout Europe. However, far more carbonated beverages, soft drinks and beer are purchased from vending machines than juice. To use this distribution method, juice manufacturers have to make agreements with specialised distributors or vending machine operators.
- Online retail: existing retailers typically sell juices and food online as a part of their offering to customers. Only a few merchants, such as Ocado, sell exclusively through online platforms. Lockdowns across Europe during the COVID-19 pandemic led to a massive spike in online sales throughout the year 2020. In 2020, growth of online channels was almost 55%, compared to an 8.8% increase in online European grocery retail sales in 2021.

Food industry

The part of the food sector that is significant for pineapple juice sales is made up primarily of beverage producers. This sub-sector is expected to continue expanding as a direct result of growing demand for plant-based and low-sugar beverages. Some of the most relevant end-use applications for pineapple juice are:

- Beverages: the beverage sector is the biggest consumer of imported pineapple juice. Pineapple juice is used by blending and bottling firms and by juice ingredient suppliers to make a variety of flavours.
- Fruit preparations: the fruit preparations sector produces formulations for products such as fruit yoghurts, ice creams, jellies and candies. Pineapple juice can be combined with other components to make finished products and is used in toppings and fillings.

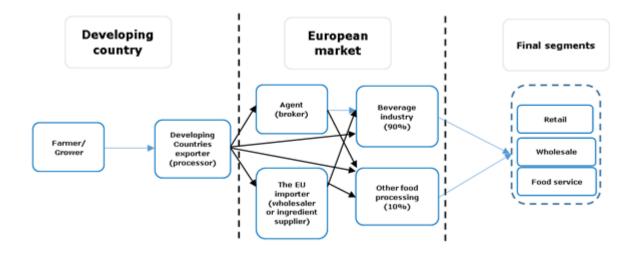
Food service

Bottling firms that supply juices to the retail sector are typically the same ones that supply the food service segment. They often package juices in glass bottles with a capacity of **0.2** litres for sale to restaurants, cafes and bars. Several brands have made this their area of expertise. Bag-in-box packaging, made to be compatible with juice self-service dispensers, is common for hotels.

Through what channels do pineapple juices reach the end market?

Large volumes of pineapple juice are marketed either directly in the retail market, under the brand names of importers or private label manufacturers, or through the food service sector. Importers are the single most important channel.

Figure 2: European market channels for pineapple juices



Source: CBI

Importers/wholesalers

Import companies specialised in serving the beverage sector often import pineapple juice in bulk containers. These importers may be trading entities that simply resell the juice without further processing. However, some importers have processing facilities and offer tailored solutions for the food sector or bottling firms. In the industry, these importers are often known as 'blending houses'.

Importers usually have a strong understanding of the European market and carefully watch the situation in producing nations. This makes them a good primary point of contact in Europe for suppliers, as most European bottlers do not directly import raw ingredients. In addition to pineapple juice, importers may buy a range of other goods including fragrances, fruit cells, purees and frozen fruit. To boost chances of success in this market, suppliers can consider selling other products alongside pineapple juice.

Some of the largest juice wholesalers and suppliers include Calgros, Verbruggen Juice Trading B.V., Freshways, SVZ, Prodalim, Ariza, Santos Enterprise Food, Döhler, Agrana, Grünewald (Ernteband Fruchtsaft), Carriere, Johs.Thoms, Saprex and Juice Trade.

Agent/broker

Agents are significantly less important in the pineapple juice trade compared to other processing industries. Often, agents are separate organisations operating as middlemen between buyers and sellers and negotiate on customers' behalf. They typically charge fees ranging from 2% to 4% of the total deal amount for their services.

Retail/food service

Pineapple importers and packers are under pressure from retailer demand for not only lower prices but also value-added characteristics such as 'sustainable,' 'natural,' 'organic' and 'low-calorie' products. This requires complete transparency across the supply chain. Many importers have their own rules of conduct and establish long-term partnerships with suppliers from developing countries to accomplish this goal.

It is unusual for big European retail chains to import packaged juices from outside the region. Some retail chains have their own bottling operations. Supplying them is a good way for manufacturers to get closer to retailers.

Importers can be subcategorised based on the types of stores they supply, such as ethnic or Fairtrade stores. These types of stores may be interested in purchasing retail-packaged juices that are certified or have functional benefits.

The leading food retail companies in Europe differ per country. The companies with the largest market shares are Schwartz Gruppe (Lidl and Kaufland brands), Carrefour, Tesco, Aldi, Edeka, E.Leclerc, Metro Group, Rewe Group, Auchan, Intermarché and Ahold (Delhaize, Albert Heijn and several other brands).

What is the most interesting channel for you?

Importers of specialised beverage components are likely the best channel to pursue to sell pineapple juice on the European market. European importers will be more interested in export companies whose pineapple juice is produced in an environmentally friendly way and distinctive in quality.

3. What competition do you face on the European pineapple juice market?

Which countries are you competing with?

Costa Rica, Thailand and the Philippines are the main competitors for emerging suppliers of pineapple juice to Europe. These three countries supply around 87% of all pineapple juice to Europe. The pineapple juice market is dominated by developing country producers. Developing countries such as Costa Rica, Thailand, the Philippines and Indonesia are the key competitors in the main markets. Though small in comparison, Brazil and Kenya are good examples of competitors from other developing countries.

Costa Rica: the leading supplier of pineapple juice to Europe

In 2020, Costa Rica ranked fourth in the world in pineapple juice exports, with a global export share of 10.3%. The total value of its 2020 pineapple juice exports was €43 million. Costa Rica's top export destinations for pineapple juice were the United States (38.6%), the Netherlands (17.3%) and Canada (10.3%). In 2021, Costa Rica exported 136.7 thousand tonnes of pineapple juice to the European market, down from 140.5 thousand tonnes in 2017, making it the top exporter, with a 63% market share. Costa Rica's top pineapple juice export destinations in Europe include the Netherlands (65% share), Spain (18%), Belgium (11%) and France (5%).

More than 85% of all tropical juice exported from Costa Rica is pineapple juice, making it the country's most popular export. Costa Rica exports both NFC and pineapple juice concentrate. The Huetar Norte region cultivates about half of all pineapples produced in Costa Rica, followed by the Atlantic Huetar and Pacific regions. Unlike other countries, Costa Rica uses fresh, high-quality pineapples to manufacture pineapple juice concentrate, making Costa Rica's prices higher than those of competitors.

Thailand: a declining supplier

In 2020, Thailand ranked third worldwide in pineapple juice exports, with a share of 15.2%. In 2020, the value of exports was €63.3 million. Thailand's top export destinations for pineapple juice were the United States (23.8%), the Netherlands (19.2%) and Iran (10.6%). Thailand is the second-largest exporter of pineapple juice to Europe, with a market share of 10%. In 2021, Thailand exported 22.3 tonnes of pineapple juice to the European market, compared to 36.2 tonnes in 2017. Thailand's top export destinations for pineapple juice in Europe were the Netherlands (68%), Spain (16%) and Austria (6%).

In recent years, the low price of fresh pineapples has led many Thai farmers to shift to other crops, resulting in a 38% decline in imports from Thailand and creating opportunities for other suppliers.

Philippines: the world leader

Even though the Philippines is the world's largest supplier of pineapple juice, the country has always prioritised the US market. In 2020, the Philippines ranked first in the world, with an export share of 27.3% and export value of €113.9 million. The Philippines' top export destinations for pineapple juice were the United States (69.7%),

the Netherlands (8.9%) and Japan (4.4%). In 2021, the Philippines exported 14,731 tonnes of pineapple juice to Europe, representing a 7% share of the market, and up from 13,951 tonnes in 2017. Between 2017 and 2021, exports from the Philippines grew at an average annual rate of 1%. Its top export destinations for pineapple juice in Europe were the Netherlands (92%), Spain (5%) and France (2%).

Indonesia: an emerging developing supplier

In 2020, Indonesia ranked fifth in the world in pineapple juice exports, with an export share of 8.6%. The value of Indonesia's pineapple juice exports in 2020 was €35.9 million. Indonesia's top export destinations for pineapple juice were the Netherlands (30.9%), the United States (18.8%) and Saudi Arabia (10.1%). In 2021, Indonesia exported 9,836 tonnes of pineapple juice to the European market, compared to 6,397 tonnes in 2017. Between 2017 and 2021, exports from Indonesia grew at an average annual rate of 11%. Indonesia's top export destinations for pineapple juice in Europe were the Netherlands (82%), Spain (16%) and France (2%).

Brazil: the market with the highest growth

In 2020, Brazil ranked eighth in the world in pineapple juice exports, with an export share of 2.7%. The value of its exports in 2020 was €11.2 million. Brazil's top export destinations for pineapple juice were the Netherlands (49%), Spain (12.4%) and the United States (9.4%). In 2021, Brazil exported 8,848 tonnes of pineapple juice to the European market, compared to 2,628 tonnes in 2017. Between 2017 and 2021, Brazil's pineapple juice exports grew by on average 35% a year. Brazil's top export destinations for pineapple juice in Europe were the Netherlands (73%), Spain (16%) and Italy (5%).

Over the past five years, Brazil's overall juice exports to Europe surged 237%. More than 98% of this is orange juice, followed by pineapple juice and acerola juice.

Kenya: the African emerging supplier

In 2020, Kenya ranked seventh in the world in pineapple juice exports, with an export share of 3.6%. The value of its exports in 2020 was €15.1 million. Kenya's top export destinations for pineapple juice were the Netherlands (31.2%), the United States (19.7%) and Spain (16%). In 2021, Kenya exported 7,722 tonnes of pineapple juice to the European market, compared to 6,926 tonnes in 2017. Kenya's top export destinations for pineapple juice in Europe were the Netherlands (67%), Spain (14%) and Italy (6%).

Which companies are you competing with?

There are many pineapple juice producers. Companies in Costa Rica currently hold a dominant position in the European market. Several efforts are underway to help small juice companies produce more environmentally friendly juices. Below are some of the major pineapple juice processors and exporters.

Costa Rica

Florida Products is the industry leader in Costa Rica both in fruit processing and exporting. It produces and supplies natural juices, concentrates, fruit and vegetables purees and coffee extract for the food sector. Its processing facility is very advantageously located in the middle of the country, close to San José. It is a member of the European Union fruit juices association SGF-IRMA (Schutzgemeinschaft der Fruchtsaft-Industrie e.V.).

Other Costa Rican pineapple juices companies include Tropical Paradise Fruits, Del Oro and TicoFrut S.A.

The Philippines

Dole Packaged Foods, LLC is an industry leader in the production of high-quality fruits and packaged food items in the Philippines. It has plantations in both the northern and southern parts of Mindanao and exports products to markets all over the world, including the Middle East, Asia, North America and Europe. The company holds many certifications, including ISO 14001, Global GAP, SA 8000, Organics (USDA, EU and JAS), Rainforest Alliance and Fairtrade.

In 2021, Dole formed a partnership with Ananas Anam, the UK-based owner of the vegan pineapple leather company Piatex. To manufacture its Piatex goods, Ananas Anam sources leaf fibres gathered and extracted from one of Dole's farms in the Philippines. This agreement is an important step towards Dole's objective of zero product loss by the year 2025.

Other pineapple juice companies in the Philippines include Cenmaco, Inc. and Dizon Farms.

The Netherlands

Prodalim Group is one of the world's leading manufacturers of processed fruits and fruit-based beverages. Its product range includes juices, concentrates, natural fruit concentrates (NFC), purees, organic fruits, essential oils, fragrances, oil and byproducts in flavours that include pineapple, orange, grapefruit and more. It operates worldwide through an extensive network of facilities and offices in key locations across the globe.

In 2021, Prodalim opened a new location in Teran, Mexico, for both conventional and organic production of a variety of citrus fruits.

Other pineapple juice companies in the Netherlands include the Dutch Cranberry Group.

Pineapple juice companies in other supply countries

- Brazil: Tecnovin Do Brasil, Flora
- Thailand: The Prachuab Fruit Canning Co., Ltd. (Praft), L.T.I Co., Ltd., Pranburi Hotei Co., Ltd.
- Indonesia: PT Pancaran Mulia Sejati, PT Berri Indosari
- South Africa: Divine Juice Co.

Which products are you competing with?

Fresh pineapple and other tropical and citrus juices are among the main competitors for pineapple juice. Large quantities of fresh juice can be produced at home, in restaurants or using juice extractors in supermarkets. Home juicers are popular among European consumers and freshly pressed juices are thought to be healthier and retain more vitamins, enzymes, minerals and antioxidants than canned or bottled options. The disadvantage of fresh juices is the higher price or, when made at home, the cost of a juicer and extra time needed for preparation and clean-up. The market shares of fresh juice vary by country and depend on local preferences, but have been increasing in all major European markets. According to Statista, fresh fruit juices comprise 23.4% of the market in Germany and 68.8% in France.

Other non-fresh pressed juices, both fruit and vegetable, as well as juice mixes, are the second major competitor for pineapple juice. The most popular juice flavours in Europe are orange (36.5%), flavour mixes (19.2%), apple (15.7%) and peach (3.5%). Vegetable juices are lower in calories than fruit juices. Particularly healthy options include tomato juice and beet juice. Vegetable juices are less sweet than fruit juices and are typically consumed in smaller quantities.

Tips:

Due to climate conditions, exotic fruits are rarely cultivated in Europe. This creates opportunities to introduce and promote exotic flavours like pineapple on the European market.

Consider exporting juice varieties for which demand has increased, for example with higher pulp content and fresh and organic juices.

New flavour mixes are another opportunity and can be developed in cooperation with European processors and bottlers. Consider investing in product development to offer new flavour mixes.

4. What are the prices for pineapple juices?

The consumer retail price of pineapple juice in Europe varies greatly depending on the production country, packaging type and size, juice variety, quality, Brix value and brand.

In the European Union, the price of pineapple juice (single strength) exports was valued at \in 843 per tonne and of imports at \in 749 per tonne in 2021.

Table 1: 2021 import pricing from the top supply countries

Thailand	 Pineapple Concentrate - FOB €1,642 - 1735/MT Pineapple cultivation in Thailand has a 6-year cycle, with 2013-2018 being the last cycle. The start of a new cultivation cycle coupled with reduced production due to COVID-19 restrictions resulted in a 22% and 28% production decline in 2019 and 2020, respectively, compared to 2018 production figures.
Costa Rica	 Pineapple Concentrate Frozen MD2 grade - FOB €2,064 - 2157/MT Pineapple NFC - €703 - 750/MT CFR Europe
Philippines	• Pineapple Concentrate - FOB €1,689 - 1735/MT
Brazil	• Pineapple Concentrate - 60B - €1,876/MT CFR Europe
Kenya	 Pineapple Concentrate - 60B - €1,970/MT CFR Europe

Retail prices of pineapple juice in Europe range from €1 to €3 per litre, depending on the brand and packaging.

Table 2: Price breakdown based on different export process steps

Steps in the export process	Type of price	Price breakdown	Example (1 L)
Production of pineapples	Farmer price	10%	€0.10
Processing and bulk packing	FOB price	28%	€0.28
Storing, handling and shipping	CIF price	35%	€0.35

Selling to bottling companies	Wholesale price	50%	€0.50
Bottling costs	Production price	60%	€0.60
Retail sales	Retail price	100%	€1.00

Source: CBI

This study was carried out on behalf of CBI by M-Brain.

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