

Partners in Transformation Import Promotion Desk

Practical market insights into your product

Tropical Fruit Pulps in Germany

Albeit a general decline in volume, Germany remains one of the leaders in per capita consumption of fruit juices in the world. Especially the categories chilled and "not from concentrate" (NFC) are gaining market against the overall trend, with consecutive growth during the last 5 years. While apple juice stays in the number one spot, followed by orange and multi-flavors, only the flavor mixes show significant gains, nurtured by the ever-growing smoothie segment. This development sheds a light on tropical fruit pulps which provide the main differentiator for the final consumer in this type of products. Also due to changing weather patterns in the world, established importers are looking to broaden their supply base in order to safeguard their ability to supply all year round with competitive prices.

SAMPLE OF ATAULFO MANGO PULP



Source: NPU Trade

PRODUCT DEFINITION

The product definitions outlined hereafter primarily refer to unsweetened frozen and sweetened preserved tropical fruit pulps although the corresponding HS Code of the former also includes frozen fruits in general. Due to the fact that exotic fruit pulps do not have easily distinguishable HS Codes we take the predominant Mango as an example for the category which also includes: Papaya, Guava, Passion Fruit and others.

Many exotic fruits provide not only new and exciting flavours but also contribute various beneficial nutrients, minerals, antioxidants and vitamins to the diet.

- Mango: rich in beta-carotene a pre-stage of Vitamine A as well as high in potassium; additionally the fruit provides the required daily dose of vitamin C and also contains: calcium, magnesium and iron; nonetheless it is low in calories
- Papaya: loaded with nutrients and offers a unique enzyme called papain which is able to split proteins to make them available to the human organism and prevents gastrointestinal diseases; the papaya is also supposed to be anti-carcinogenic
- Guava: rich in dietary fiber and boasting one of the highest levels of vitamin C and moderate levels of folic acid; although nutrient content varies across cultivars, the fruit offers a broad, low-calorie profile of essential nutrients
- Passion Fruit: contains also a particular high amount of dietary fiber and lots of vitamin C; on top it offers also good amounts of copper and iron as well as several flavanoid antioxidants such as beta-carotene and cryptoxanthin-beta

Fruit pulps are thick, smooth, homogeneous products which have been processed that the insoluble fibrous parts are broken up so as to be able to fit through a fine sieve. For this purpose the fruit is directly expressed by mechanical extraction processes and then filtered to a certain extent. In some cases, the pulp is pasteurised or even sterilized to increase shelf-life and extend applicability (e.g. baby food). Fruit pulps also retain all of the juice and a large proportion of the fibrous matter naturally found in the raw fruit. Only excess insoluble fibres are removed.

Fruit pulps are commodities and sold as intermediate products for industrial use. Thus the product is often aseptically packed in drums with polyethylene liners of approximately 200 litres or frozen and packed as above or in boxes with polyethylene liners and weights of 10 to 20 KG. Single strength means it has the same sugar (Brix) level as the original fruit and no added sugars. Additionally several levels of concentration also exist such as double or triple strength, each offering a multiple of the original level.

Exotic fruit pulps are mainly used in the juice making industry but also for fruit preparations for the dairy industry to make yoghurt as well as ice cream or convenience food. In the Combined Nomenclature (CN8) tropical fruit pulps are included in:

- 08119085: Guavas, mangoes, mangosteens, papaws `papayas`, tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola, pitahaya, coconuts, cashew nuts, brazil nuts, areca `betel` nuts, cola nuts and macadamia nuts, uncooked or cooked by steaming or boiling in water, frozen, not containing added sugar or other sweetening matter
- 20089948: Guavas, mangoes, mangosteens, papaws `papayas`, tamarinds, cashew apples, lychees, jackfruit, sapodillo plums, passion fruit, carambola and pitahaya, prepared or preserved, not containing added spirit but containing added sugar, in immediate packings of a net content > 1 kg

PRODUCT SPECIFICATIONS

QUALITY

Product quality and safety are preeminent concerns in Germany. This, combined with a relatively straightforward amount of players in the trade, with buyers that are often reluctant to change and generally skeptical towards new foreign suppliers, causes supplying countries to often face a challenge when entering the market. Although changing global climatic conditions force traders and importers to look more frequently for new suppliers when shortages arise.

The quality requirements for the product itself are based mostly on the intended use of the product. Fruits have delicate flavours that are easily damaged or changed by heat, indicating that they are best consumed with the least processing possible, as it generally decreases the quality of the fruits characteristical nutrients and flavors. Additionally, an attractive colour is also important for fruit pulps.

Some established producing countries, such as India and Peru, dominate the market to a certain extent and are setting the industries' standards regarding inter alia qualities, packaging, processing and are often taken as a reference.

To some extent innovations have found their way into the market namely new heat treatment technologies and other processing innovations like ohmic heating, pulsed electric fields or high pressure processing are implemented to reduce the loss of nutrients and flavour compounds while achieving a sufficient durability of the product.

CODEX (Codex Alimentarius) and UNECE (United Nations Economic Commission for Europe) are internationally recognized standards. They are not legally binding, but German buyers would expect suppliers to conform to them if they wanted to access the market.

 CODEX has a standard for fruit juices and nectars which also covers fruit pulps for the use in the manufacture of fruit juices and nectars.

Generally for fruit pulps, the key quality requirements are the following:

- Brix level shall be the Brix as expressed from the fruit
- Soluble solids content of the single strength juice shall not be modified
- The pulp shall have the characteristic colour, aroma and flavour of the original fruit
- It shall not retain more water than technologically avoidable from washing and other preparatory operations
- It shall maintain the authenticity of the product's essential physical, chemical, organoleptic and nutritional characteristics of the original fruit
- Sugar (sucrose, dextrose anhydrous, glucose and fructose) with less than 2% moisture may be added
- Syrups may only be added to fruit juice from concentrate (see CODEX)
- If Sugar or Syrups are added the product name shall indicate this
- Subject to national legislation, lemon or lime juice may be added up to 3g/l for acidification purposes to unsweetened juices
- Addition of both sugars and acidifying agents to the same fruit juice is prohibited
- Essential nutrients may be added for the purpose of product fortification

The main quality aspects in regard to the product are the freshness, soundness as well as the ripeness of the fruit specifying the sugar levels and the consistency of the original flavors and nutrient levels.

LABELLING

Labelling of consumer packs must be in accordance with the rules and regulations applying in the EU market, including Germany. Labels cannot contain any toxic ink or glue. See <u>EU Directive</u> 2000/13/EC, which lays down the general rules on labelling of pre-packaged food sold on the EU market. This regulation will be replaced by Regulation (EC) 1169/2011 on the provision of food information to consumers, as from December 13th, 2014. The key requirements are:

- Name of the product
- List of ingredients
- Quantity of an ingredient or category of ingredients
- Net quantity (the amount of food in the container or package)
- Date of minimum durability
- Special storage instructions
- Name and address of the manufacturer or packager or EU buyer/retailer
- Place of origin or provenance of the product
- Instructions for use
- Name/code of the certifying body and certification number, if it is an organic product
- Nutrition facts label (regulatory obligation from December 13th 2016)

In addition, any certification logo (if applicable) and/or retailer logo (in the case of private label products) should be on the label. EAN bar codes are used on all pre-packed products and can be obtained from Global Standards One (GS1).

Regulation (EC) 1924/2006 covers the use of nutrition and health claims that can be made on labels. See also the CODEX guidelines on Nutrition Labelling (CAC/GL 2-1985)

EXAMPLE OF END USER PACKAGING



Source: Ponthier

PACKAGING

EXAMPLE OF ASEPTIC FILLER



Source: FBR-ELPO

Fruit pulps must be packed in such a way so as to protect the produce and its original characteristics properly.

The materials used inside the packaging must be new, clean and of sufficient strength to avoid causing any external or internal damage to the produce. Particularly the polyethylene liners/bags must be of a food grade quality. Additionally, stamps bearing trade specifications are allowed, provided the printing or labelling has been done with non-toxic ink or glue. The inside of drums must be painted with food grade lacquer and the bags must be pre-sterilized as well as heat sealed, if the product is supposed to be shipped aseptic.

The packaging of fruit pulps is important to preserve the quality of the contents and to protect them from contamination and damage during transportation. Therefore, packages must be free of all foreign matter and the primary packaging, which is in direct contact with the food must comply with the rules set out by the EU regarding Food Contact Materials. Many moisture and vapour-resistant wraps, such as heavyweight aluminium foil, plastic coated freezer paper, and other plastic films are effective at excluding gasses like oxygen enhancing the product's shelf-life. The primary pack may be covered in a carton wrap or in a box to preserve the product's characteristics and to simplify transportation.

LEGISLATIVE REQUIREMENTS

GENERAL FOOD LAW AND FOOD SAFETY REGULATION

Regulation (EC) No 178/2002 introduces general definitions, principles, obligations, and requirements that apply to all food brought on the EU market, including Germany, in respect of food safety. Additionally regulation (EC) No 882/2004 lays down the general approach to control the compliance with existing regulations regarding feed and food law.

FOOD HYGIENE

Regulation (EC) 852/2004 covers all aspects of the food supply chain from a hygiene perspective. Food chain actors should comply with the general requirements regarding hygiene; microbiological criteria; procedures; temperature control; maintenance of the cold chain; as well as sampling and analysis. For actors in the food supply chain (e.g. processors, packers, distributors), the EU requires the application of certain rules, which are based on the HACCP (Hazard Analysis & Critical Control Points) principles regarding food hygiene.

CONSIDERATIONS FOR ACTION

- Food safety is fundamentally important, and as an exporter you can gain advantage by demonstrating your appreciation of this.
 See the website of the German Federal Office For Food Protection and Safety.
- Check the CBI <u>EU buyer requirements for</u> processed fruits, vegetables and edible nuts which cover legal requirements in relation to food safety, food contact materials, contaminants and labelling.
- Check the <u>guidance document</u> on control of foods imported into the EU.
- Have a look at <u>AUN</u> the European Fruit Juice Association. It keeps the trade upto-date with legislative developments and provides further market info.

FOOD CONTACT MATERIALS

General requirements for all food contact materials are laid down in <u>Framework Regulation</u> <u>1935/2004</u>. Food contact materials, usually from packaging, must be manufactured in such a way that they cannot be a danger to human health.

CONTAMINANTS/TRACES

The EU, including Germany, has set threshold limits for certain substances that could be present in food products, such as microbiological contamination, contaminants and residues of pesticides. The basic principles of EU legislation on contaminants can be found in <u>Regulation 315/93/EEC</u>. Maximum levels for selected contaminants in food can be found in (EC) 1881/2006.

TRACEABILITY

Under EU law, including Germany, this refers to the ability to track any food or related substance used for consumption through all stages of production, processing and distribution.

NOVEL FOODS

The Novel Food Regulation covers foodstuffs that are newly developed by industry, but also natural foodstuffs or ingredients which were not consumed to a significant degree within the EU, before 15 May 1997.

IMPORT CONTROLS

Once cleared by customs, the product can circulate freely within the EU. The Most Favoured Nation (MFN) applied tariff for the HS Code 08119085 is 9% and for the HS Code 20089948 11% but most origins have already established free trade agreements allowing them to bring products into the market without any customs duties.

NON-LEGISLATIVE REQUIREMENTS

GLOBAL G.A.P.

Global Good Agricultural Practice (GlobalGAP) is a worldwide B2B standard and certification scheme for agricultural products. Leading food retailers in Germany require food processors to source their produce from ingredients that are certified by a system such as this.

- Check the Fact Sheet on Food Contaminants by the Directorate General for Health and Consumer Protection.
- More information on this subject can be found on the official EU website.

- See the general principles and requirements of Food Law in Regulation (EC) 178/2002 on traceability.
- Visit the European Commission website for more information on Novel Foods.
- Check the <u>EU Export Helpdesk</u> for more information on import tariffs and import regulations.
- More specific information on importing to Germany can be found at the <u>German</u> Trade and Invest portal.
- Check the website of German customs.
- The International Trade Center (ITC) provides information on standards and codes of conduct, which you can search and identify those which are most suitable for your product.
- Check the <u>Global GAP website</u> for more information.









OTHER FOOD SAFETY SCHEMES

The HACCP (Hazard Analysis & Critical Control Points) principles regarding food hygiene are a legal requirement (see above) but in practice many buyers insist on higher standards (the International Food Standard is referred to frequently in Germany). The Global Food Safety Initiative (GFSI) contains a benchmark of relevant standards. One of them is ISO 22000, in form of the Food Safety System Certification (FSSC), which builds on the HACCP principles by means of auditable requirements and is also aligned to ISO 9001. Furthermore occupational health and safety standards like British Standard OHSAS 18001 exist, promoting a safe and healthy working environment.

BUSINESS SOCIAL COMPLIANCE INITIATIVE (BSCI)

This is a leading business initiative for companies committed to improving working conditions in their global supply chain. It draws on important international labour standards to protect workers' rights and is the basis for the SA8000 (see below).

ORGANIC STANDARDS

The German Organic Trade Association has higher standards than EU organic regulations which are generally sufficient. On the left you can see the EU organic logo, while the other German organic standards, including for example Demeter and Bioland, have their own specific logo. These particular standards should be regarded as an optional mean to further differentiate the product.



FAIR TRADE

Fair trade is also a small but important niche segment in Germany, primarily found on agricultural products. It focuses on fair labour standards and fair prices for small developing country producers. The use of the fairtrade logo is highly controlled to ensure that only companies that adhere to genuine fair trade principles can use it. Besides this also other certification bodies exist with a similar scope for instance Fair for Life.

CERTIFIED

RAINFOREST ALLIANCE

This well-known certification scheme is designed to help to reduce the environmental and social impact of agricultural production.

- Check the other leading food safety schemes such as the British Retail Consortium Global Standards, the Food Safety System Certification 22000, the International Food Standard (IFS) and the Safe Quality Food Programme (SQF).
- Check the GFSI website for <u>benchmarking</u> information of relevant standards

- Check the <u>BSCI website</u> for more information.
- See the <u>Regulation (EC) 834/2007</u> for Organic Food and Farming for further information.
- Check the <u>German organic trade associa-</u> tion for more information on the various organic labels in Germany.
- Look on the <u>Bio Siegel</u> website for more information.
- Check the German fair trade website
- Check the Fair for Life website

Check the Rainforest Alliance website

It was awarded a recommendation by Germany's National Consumer Federation.

OTHER SOCIAL AND ENVIRONMENTAL STANDARDS

There are many international schemes available and it is a question of determining what is most suitable for your product and market, but other important initiatives regarding sustainability include ISO14001 for environmental management and SA8000 for social accountability.



SECTOR SPECIFIC STANDARDS AND CERTIFICATION BODIES

Regarding the fruit juice industry there is also the Sure-Global-Fair (SGF) Initiative which focuses on the compliance with legal and industrial quality and safety standards through targeted market observations and plant audits. It aims to promote free and fair competition, improve consumer protection and control fruit juices, fruit nectars and other products made from fruits and vegetables.

- Look for more information on ISO 14000
- Look for more information on SA 8000

Look for more information on SGF

TRADE AND MACRO-ECONOMIC STATISTICS

This section provides more detailed statistics of frozen tropical pulps in Germany regarding the customs tariff numbers: 08119085 and 20089948.

TRADE: IMPORTS AND EXPORTS

HS CODE: 08119085

FIGURE 1: IMPORTS OF FROZEN TROPICAL FRUIT TO GERMANY, 2010-2014, THOUSAND TONNES & MIO. USD

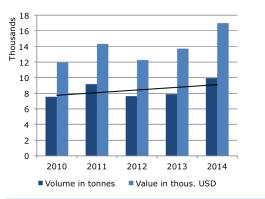
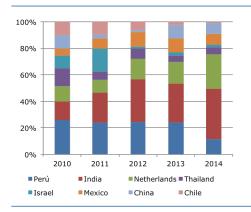


FIGURE 2: LEADING 8 SUPPLIERS OF FROZEN TROPICAL FRUIT TO GERMANY, 2010-2014, TONNES



Source: Destatis

Source: Destatis

FIGURE 3: EXPORTS OF FROZEN TROPICAL FRUIT FROM GERMANY, 2010-2014, THOUSAND TONNES & MIO. USD

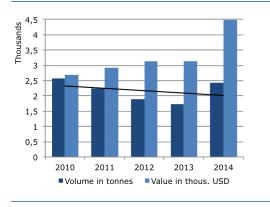
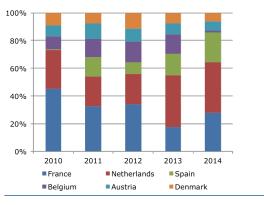


FIGURE 4: LEADING 6 EXPORT DESTINATIONS OF FROZEN TROPICAL FRUIT FROM GERMANY, 2010-2014, TONNES



Source: Destatis

Source: Destatis

HS CODE: 20089948

FIGURE 5: IMPORTS OF PRESERVED TROPICAL FRUIT WITH ADDED SUGAR TO GERMANY, 2010-2014, THOUSAND TONNES & MIO. USD

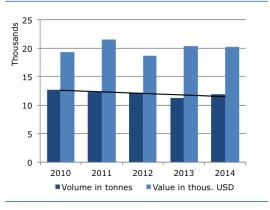
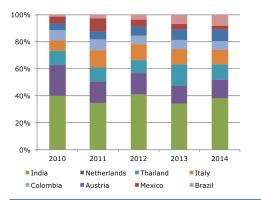
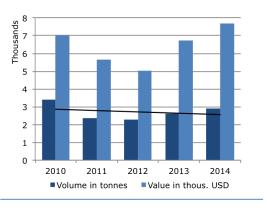


FIGURE 6: LEADING 8 SUPPLIERS OF PRESERVED TROPICAL FRUIT WITH ADDED SUGAR TO GERMANY, 2010-2014, TONNES



Source: Destatis

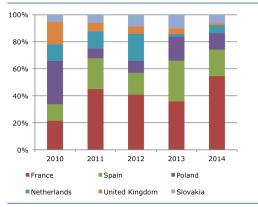
FIGURE 7: EXPORTS OF PRESERVED TROPICAL FRUIT WITH ADDED SUGAR FROM GERMANY, 2010-2014, THOUSAND TONNES & MIO. USD



Source: Destatis

Source: Destatis

FIGURE 8: LEADING 6 EXPORT DESTINATIONS OF PRESERVED TROPICAL FRUIT WITH ADDED SUGAR FROM GERMANY, 2010-2014, TONNES



Source: Destatis

ANALYSIS AND INTERPRETATION

- The tariff numbers in question show a very different development during the last 5 years, while the frozen segment represented by HS Code 08119085 is on the rise, preserved products from HS Code 20089948 show a negative trend.
- Also the market sizes differ considerably as the one for preserved is about 3 times larger than the one for frozen products on EU level but only 30% larger when looking at the German market alone.

HS CODE: 08119085

- Germany represents a third of global imports to the EU and is the main market for such products in the union.
- Total imports into Germany have increased since 2008 by approximately 10% on average, despite a post-crisis decline in 2009 as well as 2012 and reached an all-time high of almost 10.000 metric tonnes in 2014.
- The leading 8 supplying countries shown in Figure 2 accounted on average for about 60% of all frozen tropical fruit imports in 2014 into the EU.
- India and Peru are the leading countries of origin regarding imports of frozen tropical fruits to Germany and account for about 30% of all imports in volume on average during the last 7 years. Their share dropped from 44% in 2008 to 28% in 2014, mainly due to the growth of indirect trade through the Benelux.
- Looking at the EU Imports this assumption is reinforced by the fact that India and Peru together increased their share from 44% in 2010 to 62% in 2014.
- The growth of India and the main Latin American suppliers Peru and Mexico was contrary to the development of Brazil, China and Thailand who significantly decreased their share from around 25% to around 11%.
- According to DESTATIS exports from Germany were valued at € 4.5 million in 2014, increased by more than 60% since 2010, while export volumes declined by 5% in the same period. This suggests increasing export prices over the period.

CONSIDERATIONS FOR ACTION

 Compared to the other countries in the EU, the german Market for preserved products is comparably smaller and also shrinking.

- Consider exporting to Germany if you are looking at the EU market for frozen tropical fruits. As both a leading importer and exporter, Germany represents an important centre of the frozen fruit trade although Belgium and the Netherlands are also strong.
- Against the difficult economic environment the category developed strong and showed growth despite the general economic contraction.
- Be aware that if you do work through a distributor in another country than Germany, food imports from member countries within the European Union fall under the "free movement of goods" principle. This means that products that are imported by other EU-countries may be brought into Germany even if they violate German food laws. If this is the case, importers must obtain a permit from the Federal Office for Consumer Protection and Food Safety (BVL) in order to sell the product in Germany.

The destination of exports was also quite concentrated. The top 5 export destinations accounted for 75% of all exports by volume during the last 7 years. The principal exports were mostly to other EU Member States.

HS CODE: 20089948

- Although its size is significantly larger on EU level compared to its frozen counterpart, the market for preserved tropical fruit with added sugar is on a constant decline, aligned with the developments in the juice market. Over the last 5 years the volume decreased on average by 2% per year to approx. 12.000 tonnes in Germany.
- India is leading the segment by far with a market share of more than a third not including the portion of indirect imports through the Netherlands and Belgium.
 Other countries of origin like Thailand and Colombia together only account for half of India's import volume.
- In regards to import volumes during the last 5 years on the level of the EU, india alone represents 60% followed by Mexico and Thailand which together only provided about 17%.
- Export numbers are in line with the import statistics also showing an average decline of 2% over the last 5 years in volume while the import value rose on average by around 4,5%.
- The main export destination for this segment is also France accounting for more than 25% of exports closely followed by the Netherlands with a similar share.

The AIJN market reports show the development of the different fruit juice segments.

PRODUCTION AND CONSUMPTION

Due to the climatic conditions the products in question have to be imported from outside the country and there is no regional supply. Nonetheless Germany is a strong industrial processor for value added end consumer products and food ingredients which are exported to the other EU member states as well as eastern Europe.

Consumption of the category named "other fruits", which also includes tropical fruits, is rising against a general decline of fruit consumption. The overall trend underlying these developments is a shift in the consumption pattern of a large part of the population from buying ahead and low price to a more targeted, quality-oriented consumption with an emphasis on nutritional benefits. This causes a generally lower consumption in volume along with higher price levels, which helps imported tropical fruits to find their way into the daily meal plan of the german consumers. German import statistics also show an increase of this category in the last years, which supports these assumptions.

Processed tropical fruit is predominantly consumed as nectar, respectively pulp in smoothies or fruit mixes or as fruit preparation for dairy products and in smaller concentrations as ingredients in the catering industry.

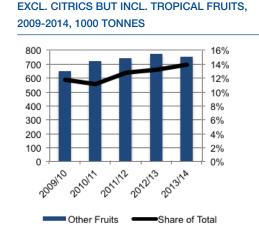
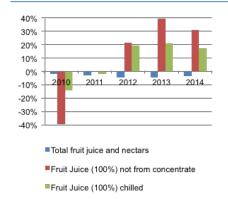


FIGURE 9: CONSUMPTION OF OTHER FRUITS

FIGURE 10: DEVELOPMENT OF JUICE CONSUMP-TION AND GROWTH SEGMENTS IN GERMANY



Source: BMEL



ANALYSIS AND INTERPRETATION

- Germany is the main market for juice and nectar in the EU and accounts for more than 30% of total imports to the Union regarding frozen compared to less than 15% for preserved tropical fruit (with added sugar), while in general only a third of this volume is imported directly.
- The Netherlands and Belgium are due to the strategic position of their sea ports important intermediaries in the trade while the former leads the import statistics by far.
- According to Eurostat total imports into the EU of the frozen segment (HS 08119085) have risen by 15% in volume to 26.691 tonnes in 2014 from its level in 2010 while imports to Germany increased by 35% in the same period.
- In strong contrast to this development the import volume for preserved tropical fruit pulps stagnates at around 90.000 tonnes during the last 5 years.
- During this time, exports remained stable, leading to the assumption of a significant growth of internal consumption of frozen tropical fruit pulps validated also by the numbers of the BMEL (Federal Ministry of Food and Agriculture) and the AIJN (European Fruit Juice Association).
- Germany is the largest juice market in the EU and on a per capita basis, ranks

CONSIDERATIONS FOR ACTION

The ports of Antwerp and especially Rotterdam often offer better and cheaper facilities to coldstore products, due to the volume of raw material being processed. If keeping a stock inside the EU is desired, solutions in these countries should be analyzed first.

- Although the general consumption of juice is declining within the EU, this is mainly impacting domestic fruit flavors.
- Germany will remain a strong player in the juice making industry, supplying the neighbouring markets with growth potential, providing a good starting point to enter the

among the highest in the world, only surpassed by relatively smaller markets such as: Malta or Norway.

Global consumption of fruit juices has declined only slightly on a year-on-year basis while the EU has seen a decrease of 3,3% following the trend of the last 5 years. While the 100% juice category is losing stronger with -4,5%, with the exception of the before mentioned growth segments, nectars that often use tropical fruits as a base are only down by -1,8%

european market for the long-term.

MARKET TRENDS

This section provides more details about specific trends in the markets for tropical fruit pulps in Germany.

ANALYSIS AND INTERPRETATION

Social factors

- » Because tropical fruits offer various health benefits as stated before and due to the fact that consumers turn to a more conscious consumption pattern they draw more attention regarding the more and more health oriented consumer base.
- » Linked to this health trend is the importance of product quality and product safety, probably a bigger issue in Germany than most other EU member states, making the issue of certification high on consumers' agenda.
- » An important and steadily growing consumer segment is a group denominated as LOHAS which stands for "Life Of Health And Sustainability" and represents nowadays already 25% of consumers in Germany
- The growing importance of the LOHAS as a target group underlines the necessity to provide proper certifications referring to the fields of interest of this consumer segment, such environmental and social impacts of the production.
- » Naturalness is a key area of interest. New products marketed to be either "organic", "natural" or "additive-/preservative-free" perform stronger in the marketplace, while "fibre", "protein" and "low sodium" claims also add value for the end consumer.

CONSIDERATIONS FOR ACTION

- Find out more about the health claims of tropical fruits. Be sure to be clear about what can be said and be careful not to make any false claims. For more information on <u>nutrition and health claims</u> refer to the EU website.
- Find out which certification scheme your intended customers prefer and if they provide added value to your product.
- Consider how the customer segment of the LOHAS can be adequately targeted with the provided products

Consider the importance of this target group, and whether there are other related benefits that can be made in terms of the origin as well as the social and environmental impacts of the products.

- » Germany is the largest organic market in the EU and this segment has withstood the recession better than the conventional segment. Currently there is no indication that this trend will not continue in the future.
- » The shift from "from concentrate" to "not from concentrate" juice and growing interest in "High-Pressure Processed" (HPP) juices is another indicator of the growing importance of natural, untreated raw materials to be used in end consumer products.
- » German consumers are particularly environmentally conscious in terms of recycling and disposal of packaging, creating a stronger awareness regarding softening agents in plastic bottles and containers.

Technological factors

» New processing technologies like "High Pressure Processed" (HPP) or "ohmic heat treatment" allow a better preservation of nutrients as well as superior organoleptic characteristics which allow the processed fruit to offer the consumer benefits that are closer to the fresh fruit.

Economic factors

- » Due to the high dependence on imports from outside the EU, volatility regarding exchange rates and climate changes or weather phonema such as "El Niño", destabilizing local climates in key supply regions, have a big impact on the profitability of the importer and must be mitigated if possible.
- » Due to this variability and the better transparency provided by the internet, many buyers have turned to buy larger volumes on the "spot market" to make larger gains while also risking higher losses. This allows new players in the arena accessing new origins.

- Consider whether the potential costs for organic certification justify the additional sales benefits that may ensue.
- Consider certification and labelling of your products as organic. See the background, assessment, and interpretation document for (see link on page 6) Regulation (EC) No. 834/2007 for Organic Food and Farming for more information about requirements. Check the International Trade Center <u>Standards Map</u> for a comparative analysis and review of voluntary standards.
- Look for suppliers capable to offer new innovative products providing a differentiation for the end consumer product and better health benefits.
- Managing currency risks is essential to maintain profitability. Long term commitments and strong supplier relationships can also create added value but require long-term vision and strong efforts to form a cooperation.
- As well as the established niche opportunities for organic and fair trade variants, look for other emerging relevant trends, such as developments in the functional food segment.

MARKET CHANNELS AND SEGMENTS

This section provides some information about the distribution channels through which tropical fruit pulps are marketed in the EU, including Germany.

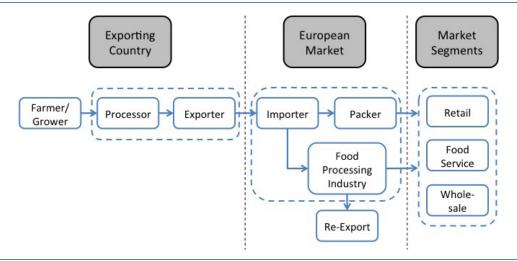


FIGURE 7: MARKET CHANNELS FOR FROZEN TROPICAL FRUIT PULPS IN GERMANY

Source: own illustration

ANALYSIS AND INTERPRETATION

Middleman or not?

In this sector the value chain is very strictly defined and follows a clear path. Although some larger processors import directly from the producer in the country of origin, the majority prefers to buy from a traditional wholesaler or importer inside of Germany because of the relative ease to enforce claims regarding product liability. Some German growers/ processors also act as importers/wholesalers and compliment their range of products with tropical fruit pulps.

Which segment?

- » Building a long-term working relationship with your importer is essential, irrespective of which channel you select. This will be crucial to establish your product in the market and mitigate possible setbacks along the way.
- » Supplying the retail trade and their private labels will get you high sales volumes but the concentrated buying power of the leading chains sometimes comes at a high cost.
- » The foodservice sector is a diverse segment. The public sector caters to hospitals, authorities, etc., while the private

CONSIDERATIONS FOR ACTION

- Understand the growing strength of retail private labels. These large retailers insist on large volumes and consistency of supply, as well as transparency throughout the supply chain.
- In the beginning it makes sense to work with an importer, therefore, you should try to find out the extent of his network as well as his experience and whether you see a fit in your and the importer's strengths and abilities.
- Talk to as many experts in the trade as you can to fully appreciate the specific issues on the German market before making this important commitment.
- Fruit pulps are primarily used as an ingredient in value added consumer products or in the hotel and restaurant industry and consequently require corresponding packaging as well as local sales support. Getting closer to the final client, therefore, requires a dedicated sales office in the target market.

sector covers restaurants, hotels, bars, staff canteens etc. Both are interesting options, with advantages and disadvantages between the public and private.

- The food industry has seen many new product innovations and tropical fruits are receiving more and more attention as ingredients to differentiate products.
 Especially fruit mixes in, for example smoothies, are trending right now.
- Although importers should focus on selling its products B2B, this does not exclude the need to invest in marketing and to offer a consistent corporate identity and design.

PRICES

This section covers the important question of prices, costs and margins. The German market is generally characterized by high quality requirements paired with a distinctive need to bargain. This can cause a lot of frustration when entering the market. Each client has their own specification, which will vary between the different market segments and the size of players. Sampling and analysis is required in each instance to determine and confirm the quality. Due to the wide variety of end consumer products and the different content of tropical fruit in each, from high to low, prevents a comprehensible analysis of prices.

ANALYSIS AND INTERPRETATION

- Tropical fruit pulps sold at high volumes with relatively low margins, like many commodities, are mostly used in fruit preparations and juices which often contain added sugar. Therefore, quality aspects in regard to high brix grades are less demanding due to the possible substitution by other sweeteners, but in general standards are still high and the market is looking more and more for less processed products.
- Each country of origin has its respective season during which product availability is good and prices are low, while throughout the rest of the year other countries will be more competitive and fill the supply gap.
- Organic is an important segment that is constantly growing but mainly for the food processing industry as consumers demand conventional products they already know to be also available organic. The achievable price premium depends on the variety or fruit but is generally around 50% higher than the regular conventional product.

CONSIDERATIONS FOR ACTION

- Maintain a network of clients buying different qualities in order to salvage product that has been rejected by the original client, in order to minimize risk exposure.
- Evaluate the time of the year during which your country of origin is competitive, respectively the others are not able to provide sufficient quantities.
- Providing organic products should be a long term goal as it is a lasting trend, but it also requires considerable planning and sufficient investment to succeed.

The following estimates can vary between different product types, formulations and sources of supply, and other considerations such as branding (private label vs. retail brand), packaging. For example, for fair trade or organic products, growers will achieve a higher proportion of the final end consumer price. Retailer margins can also vary considerably, depending on the scarcity or demand of a particular product and if it is a discounter or regular supermarket.

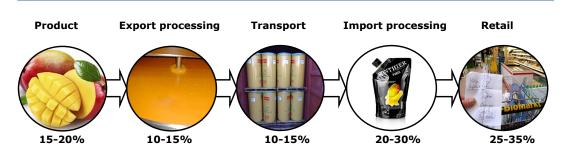


FIGURE 9: BREAKDOWN OF HOW THE COST IS SHARED THROUGHOUT THE SUPPLY CHAIN

Source: Searce estimates

USEFUL SOURCES

Check the various links provided throughout this document, but here are some other useful references:

EXPORT AND MARKET ENTRY SUPPORT

http://www.cbi.eu/marketintel_platform/Processed-Fruit-and-Vegetables-and-Edible-Nuts/177430

SOME IMPORTERS AND WHOLESALERS

Grünewald International http://www.gruenewald-international.com Carrière http://www.carriere.de/ Döhler http://www.carriere.de/

TRADE PRESS

Fruchthandel is the leading specialized magazine of the fruit trade in Germany <u>http://www.fruchthandel.de</u> Fruit processing is an international magazine focused on the beverage and fruit processing industry <u>http://www.fruit-processing.com</u> Flüssiges Obst is another trade magazine focused on the juice making industry <u>http://www.fluessiges-obst.de</u>

JUICE:

German trade association for the juice industry http://www.fruchtsaft.de/ European Fruit Juice Association http://www.aijn.org/ Information on the EU Food Industry http://www.aijn.org/

MORE INFORMATION

EU Expanding Exports Helpdesk - http://exporthelp.europa.eu - go to 'trade statistics'. Eurostat - http://export.europa.eu/newxtweb - statistical database of the EU. Several queries are possible. For trade, choose 'EU27 Trade Since 1995 By CN8'. Use the guide 'Understanding Eurostat: Quick guide to easy comext' (http://export.eurostat.europa.eu/newxtweb/assets/User_guide_Easy_Comext_20090513.pdf) for instructions. International Trade Statistics - http://www.trademap.org - you have to register

ANNEX

Following a selection of retail packs, as well as food service packaging, containing frozen tropical fruits as an ingredient or as a raw product for the use in the catering and restaurant industry. These different presentations can currently be found on the German market, illustrating the wide variety and consumer choice available. The products are available in supermarkets and online retailers. Prices were accurate as of September 2015 but will vary between outlets:

ALNATURA APPLE MANGO (25%) 750 ML

€ 1.85



INNOCENT ORANGE & MANGO NFC JUICE (13%) 900 ML € 2.49



HANOJU ORGANIC ACAI PULP (100%) 500ML € 17.95

REWE BEST CHOICE MANGO MARACUJA JAM 340G € 1.29

ALNATURA ORGANIC MANGO FRUITSAUCE 250G € 1.95



PFANNER FAIR! MANGO JUICE (20%) 1L € 1.99



PONTHIER PASSION FRUIT PULP FROZEN 100% 1KG € 14.62



LES VERGERS BOIRON BANANA PULP FROZEN 100% 1KG € 10.50



