

CBI Product Factsheet

Palm Sugar in Germany

'Practical market insights for your product'

Palm sugar exporters from developing countries (DCs) have an opportunity on the German market by positioning their product as a premium and healthier sugar than conventional white sugar. By using the popularity of organic and fair trade products in Germany, palm sugar producers can market their products in premium market segments. As a healthier ingredient than conventional white sugar, palm sugar has particularly good potential in dietetic foods.

Product definition

When referring to palm sugar, two terms are often used interchangeably: palm sugar and coconut palm sugar. These sugars are made with similar processes but originate from different botanical sources and have a slightly different chemical compositions. As these sugars are similar in their applications, both sugars are discussed in this factsheet as palm sugar.

Coconut palm sugar is produced from the sap of cut flower buds of the coconut palm tree (*Cocos nucifera*). Palm sugar is produced from the sap of various palm trees. This sap is collected from the top of the tree, after removing the flowers. Originally, sources of palm sugar were the Palmyra palm (*Borassus* genus), the date palm (*Phoenix dactylifera*) and the sugar date palm (*Phoenix sylvestris*). More recently, the saps of the sugar palm (*Arenga pinnata*) and nipa palm (*Nypa fruticans*) have been used as well.

Both sugars have an uncomplicated process and are simple, pure products. Palm sugar is produced by boiling the collected sap until it thickens. Most commonly for palm sugar the reduced sap is then solidified and sold in the form of bricks or cakes, whereas coconut palm sugar is processed into granulated sugar. To use palm sugar, palm cakes must be shaved or grated. Other forms of palm sugar can be in liquid form, where the sugar is packaged before it solidifies. In terms of popularity, coconut palm sugar is consumed more extensively, as its granulated form makes it easier to use.

Classification of palm sugar:

- Harmonised System (HS) code: no separate HS code exists for palm sugars, instead it is traded under 1702.90; 'sugars not elsewhere specified'

Product specification

Quality

- The most important aspect of quality of palm sugar is to keep infection and multiplication of yeast to a minimum in the palm saps.
- Freshly harvested date palm sap

Considerations for action:

- Avoid stagnant juice on the palm during collection.
- Collect palm sap early in the morning as this leads to a better quality sap.

Palm sugar cakes



Granulated coconut palm sugar



consists mainly of moisture, as well as sucrose (10%), minimal invert sugar (>0.5%) and small amounts of protein, gums and minerals. A lower level of invert sugar leads to a higher quality juice and eventually high quality palm sugar cake.

- Since palm sap deteriorates quickly, first processing must be done close to the harvesting locations.
 - Palm sugar from the Palmyra palm contains protein (1.04%), fat (0.19%), sucrose (76.86%), glucose (1.66%), minerals (3.15%), e.g. calcium, phosphor, iron and copper. Compared to conventional sugar, which mostly consists of sucrose, it has more components. As palm sugar also contains fructose (3-9 %) and molasses, it is more difficult to process than conventional sugars.
 - Adulteration of palm sugar is an emerging practice to increase supply quantities. To ensure a good quality palm sugar, quality management and control measures are needed.
 - An indication of quality of palm sugar is its colour; too light indicates that the sugar may be contaminated with white or cane sugar, too dark indicates that the sugar has been overheated, which affects the flavour. In addition, the consistency should not be too hard but rather crumble.
 - Contamination by Poly Aromatic Hydrocarbons (PAH) is a potential risk in palm sugar production when the palm sap is boiled on open fire. For more information on contaminants in food, please refer to the legislative requirements.
- Minimise time between harvesting and processing of the juice. Producers can increase efficiency by cooperating in additional processing steps.
 - Keep tools and facilities clean to prevent contamination and degradation of quality.
 - Prevent adulteration and contamination by foreign materials (e.g. white or cane sugar to lower the cost price) to preserve your reputation. To prevent contamination of your sugar with smoke, use chimneys in heating the palm sap.
 - To prevent yeast from forming, you can smoke the collecting containers (e.g. pots) by putting them upside down on smouldering leaves before using them.

Labelling

- Enable traceability of individual batches, whether they are produced by blending or not
- For bulk products, use the English language for labelling unless your buyer has indicated otherwise
- For bulk products, only the following items are required:
 - Product name
 - Batch code
 - If the product is destined for use in food products
 - Name and address of exporter
 - Best before date
 - Net weight in metric units
 - Recommended storage conditions
 - **Organic and fair trade:** Name/code of the inspection body and certification number
- Refer to the [Regulation \(EU\) 1169/2011](#) (applicable from December 2014) on food labelling. For additional info on German food labelling requirements, please refer to the German [Federal Ministry of Food and Agriculture](#).

Packaging

- Palm sugar is transported in containers. It is packed in impermeable bags or boxes, such as bag in box or carton boxes, bags or polypropylene bags with a polyethylene inner bag, which is impermeable to water vapour and provides protection from contamination. This is necessary as palm sugar attracts water. Buyers might have specific packaging requirements as well.

- Organic palm sugar should remain physically separated from conventional palm sugar.
- Ensure preservation of quality by:
 - Thoroughly cleaning the holds or containers before loading the sugar.
 - Protecting the cargo from moisture during loading, as to avoid mould, spoilage and self-heating.
 - Ensuring appropriate temperature, humidity/moisture and ventilation conditions during transportation.
 - Protecting the cargo from pests such as beetles, moths, etc.
- The European Union has laid down rules for materials and articles coming into contact with food (including for example packaging) in order to prevent any unacceptable change in the composition of the foodstuffs and to protect human health. In addition to the framework legislation [Regulation \(EC\) 1935/2004](#), Germany has established voluntary requirements. For more info on these additional requirements refer to the German [Federal Ministry of Food and Agriculture](#).
- [EU packaging legislation](#) is fully implemented in Germany and lists requirements on packaging, packaging waste and labelling.



Legislative requirements

Legal requirements are the minimum requirements which must be met by products marketed in the EU. Products which fail to meet these requirements are not allowed on the EU market. EU legislation sets the basis for legal requirements in the EU, which is generally implemented fully in Germany. Where Germany deviates from the EU legislation, information on the applicable German legislation has been added.

General food law: Food safety is the key issue in EU food legislation, in which the General Food Law is the framework regulation. The legislation also introduces requirements on traceability.

Maximum Residue Levels (MRLs): EU legislation has been laid down to regulate the presence of pesticide residues (MRLs) in food products.

Contaminants in food: The EU food safety policy has set maximum levels for certain contaminants in specified products or product groups. Germany has established additional requirements on contaminants in food.

Microbiological contamination of food: The EU has set microbiological criteria for food borne micro-organisms, their toxins and metabolites.

Organic: The EU has established requirements on production and labelling with which an organic product of agricultural origin must comply, in order to be marketed in the EU as "organic".

Hygiene of foodstuffs: The EU legislation

Considerations for action:

- Familiarise yourself with the relevant [Regulation \(EC\) 178/2002](#).
- The EU database on MRLs for different products does not include palm sugar. Therefore, for specific MRL levels for palm sugar, please contact the [German Federal Office of Consumer Protection and Food Safety](#). Refer to [the EU legislation on MRLs](#) for more information. Be aware that large retailers often have more strict MRLs than specified by EU legislation.
- Familiarise yourself with the [German legislation on contaminants in food](#), which is additional to the [EU Regulation \(EC\) 1881/2006](#). For palm sugar, contamination with Poly Aromatic Hydrocarbons is a risk.
- Ensure that you comply with the requirements on maximums laid down in [Regulation \(EC\) 2073/2005](#).
- If you choose to obtain a certificate for organic production, find out more about the following three Regulations: [Regulation \(EC\) 834/2007](#) on organic production and labelling, [Regulation \(EC\) 889/2008](#) on organic production, labelling and control, and [Regulation \(EC\) 1235/2008](#) on imports of organic products from third countries
- Ensure compliance with the

on hygiene of foodstuffs (HACCP) is legally binding for food processors, and is recommended for farmers (primary production).

Nutrition and health claims: The EU aims to prevent the misleading of consumers by tying the use of nutrition or health claims to certain conditions related to nutritional profiles of foods.

requirements as laid down in [Regulation \(EC\) 852/2004](#).

- Even though most relevant for the labelling of final products, it is good to familiarise yourself with the [EU legislation on nutrition and health claims on foods](#).
- For more information on European legislation, check an overview of [European buyer requirements for honey and sugars](#).

Non-legislative requirements

Additional, non-legal requirements reach beyond legislation, as companies can go further in their requirements than legislation. The main categories of additional requirements are environmental requirements and social (labour) requirements.

Good Agricultural Practices: GAP is not obligatory for palm sugar producers, but compliance is recommended. Several definitions exist, generally these are a collection of principles for farm production and post-harvesting processes, with the aim of safe and healthy food.

Considerations for action:

- For more information on compliance requirements, refer to the GAP standards by [Global G.A.P.](#) and the [FAO](#).
- In addition, suppliers can apply a basic HACCP system. However, if they aim to supply food manufacturers more directly, instead of through various traders, it is necessary to have a certified food safety management system recognised by the Global Food Safety Initiative, such as ISO22000, BRC or IFS: for more information check [Food Safety Management Systems](#)
- If you consider Fairtrade certifications check [Fairtrade International and FLO-Cert certification requirements](#).
- For more information on available fair trade, organic and other certification standards for various products, please refer to the [Standards Map of ITC](#). Although palm sugar is not listed separately, standards for sugar in general are identified. The website also gives a quick-scan of the requirements of these different standards.
- Buyers will appreciate a commercially oriented Product Data Sheet with photos, information on origin and bibliographic references, where available.
- Familiarise yourself with [German delivery terms](#), which are based on [international delivery terms](#)
- The website of [Tereos Internacional](#) provides a good example of a website

Food safety management: Buyers commonly require their suppliers that they have a quality/food safety management system in place. These systems require companies to demonstrate their ability to control food safety hazards in order to ensure that food is safe at the time of human consumption.



Sustainable standards: There are also non-legal requirements related for sustainable sourcing and fair trade. Examples are the Union for Ethical BioTrade, FLO, or FairForLife. For palm sugar in Germany, Fairtrade International (FLO) is most relevant.

Documentation: Buyers need well - structured product and company documentation.

Representative samples: Your sampling method should result in lot samples that represent what you can deliver in the quantities, quality and lead time as specified by the buyer and in your technical data sheet.

Delivery terms: Pay attention to strict compliance with delivery terms as agreed upon with your buyer.

Website: European buyers look for credible suppliers. You can improve the perceived



credibility of your company by developing your website accordingly.

that enhances the credibility of a company. This website has a professional image with clear and relevant information on the company and its product range.

Trade and Macro-Economic Statistics

No separate records for trade in palm sugar are available; they are included in EU and German trade statistics of 'sugars, not elsewhere specified'. As it is unclear what share of this product group consists of palm sugar, these data would not be representative for palm sugar.

Instead, where applicable, an overview of the EU and German trade in palm sugar is given. Additionally, trade data on raw cane sugar are used, as this is a comparable and competing product for palm sugar and gives a better representation of the German trade in palm sugars than other sugars. Information on consumption and trade in this sugar therefore gives a rough indication on the market development for palm sugar as well.

Please be aware that for small products such as raw cane sugar, and especially palm sugar, trade can fluctuate strongly, as a result of bad crops for example.

Imports of palm sugar

- Since Germany does not produce palm sugar, the country is entirely dependent on imports.
- Industry sources estimate that the total EU market for palm sugar varies from several hundred tonnes to a maximum of 2,000 tonnes, which is a very small segment of the total sugar market. To compare, the total EU sugar market, including cane, beet, molasses and sugars not elsewhere specified, amounted to over 16 million tonnes in 2012 (Eurostat 2013). Of this total market, Germany makes up about 11%.
- According to industry sources, imports of both refined and unrefined sugar have shown an overall increasing trend in the EU and Germany. To compare, in Germany cane and beet sugar and sugars not elsewhere specified increased by 3% and 4% annually, respectively, from 2008-2012. In 2012, the EU temporarily suspended import duties for beet and cane sugar. Consequently, imports of sugar steeply increased during this period.
- The various palm trees for palm sugar production have a wide distributional range. As such, imports originate in various regions as well. Different species of the Palmyra grow in tropical and West Africa, Madagascar and southern/southeast Asia, particularly in Cambodia and India. Date palms are common in the Mediterranean and Middle Eastern regions, as well as cultivated in North America and Australia. The sugar date palm grows in India and Pakistan. Sugar palms are native to tropical regions in Asia, from India, through Malaysia to the Philippines and are cultivated in China and Indonesia. The nipa palm grows in tropical and coastal areas of Indian and

Considerations for action

- Good sources for analysing German trade in various sugars are the [Export Helpdesk of the European Commission](#), as well as the trade statistics published by [ITC](#).
- For more information on the temporary suspension of import duties on cane and beet sugar, please refer to the [Commission Implementing Regulation \(EU\) 395/2012](#).
- Keep a close watch on production of DC suppliers of raw cane sugar, such as the Philippines, Brazil and Costa Rica, as these are competitors for your palm sugar. Even though raw cane sugar and palm sugar have different botanical origins, their similar characteristics imply that they can be used interchangeably. You may request such information from your buyers. In addition, refer to production and trade statistics as listed by [FAOSTAT](#) (per country).

Pacific Oceans, including the Pacific Islands.

- Additionally, coconut palm sugar is produced in similar countries. Globally, major suppliers are Indonesia, the Philippines and Thailand.
- Regarding raw cane sugar, a similar product to palm sugar, German imports consist of re-exports from other European countries (the Netherlands, UK and Belgium). In addition, the country is used as a first EU entry point for raw cane sugar (Brazil, Philippines and Costa Rica).

- Consider reaching the German market by using the Netherlands as an intermediary. As for other sugars, the Netherlands is estimated to be a large re-exporter of palm sugar.

Regional exporter of raw cane sugar

- Data on German trade in raw cane sugar show that 2008-2012 Germany exported around 10-50% of the volume of imports and 20-70% of the value of imports. This indicates that German exports have a higher price per unit and that the country adds value to its imports.
- In 2012, German exports of raw cane sugar were for more than 90% destined for other European countries. The top 5 export destinations were France, the Netherlands, Austria, Italy and Poland, which together imported around 70% of raw cane sugar. Volume of imports was slightly higher than value, indicating that these countries imported slightly lower priced raw cane sugar than other importing countries.

Considerations for action

- Consider using Germany as a first entry point to reach neighbouring countries in Europe, since Germany is a regional re-exporter of raw cane sugar. It is likely that Germany re-exports palm sugar as well.

Market Trends

- **Demand for natural ingredients:** consumers in Germany are increasingly looking for natural products. Natural and authentic food ingredients have a reputation of being healthier and safer than synthetic ingredients. In addition, synthetic sweeteners are losing momentum, as research increasingly confirms that they are unhealthy.
- **Healthy nutrition:** natural sugar replacers, such as agave syrup, Barleymalt syrup, beet sugar syrup, cane sugar molasse, corn syrup, cornmalt syrup, fructose syrup, rice syrup, ricemalt syrup, tapioca syrup as well as stevia, are becoming increasingly popular in Germany. Consumers are more aware than ever of the importance of healthy nutrition and manufacturers are aiming for 'clean labels'.
- Palm sugar has a low glycemic index (GI) when compared to normal sugars (30-35 compared to 60), which indicates that it takes longer to process the sugar and that blood sugar levels rise slowly. Research has shown that foods low in GI can help to prevent diabetes and offer a healthier alternative for foods high in GI. However, as the GI of foods is relatively

Considerations for action

- Promote palm sugar as a natural product to set it apart from conventional white sugar and synthetically produced sweeteners.
- In your promotion, stress the healthy aspects of palm sugar when compared to conventional sugars. You might need to educate your buyers in its use as a healthy ingredient, since this is not common knowledge.
- In addition, consider looking for buyers in the dietetic food segments. In these segments, palm sugar has more potential as end consumers have a higher awareness and interest regarding foods with a low GI.

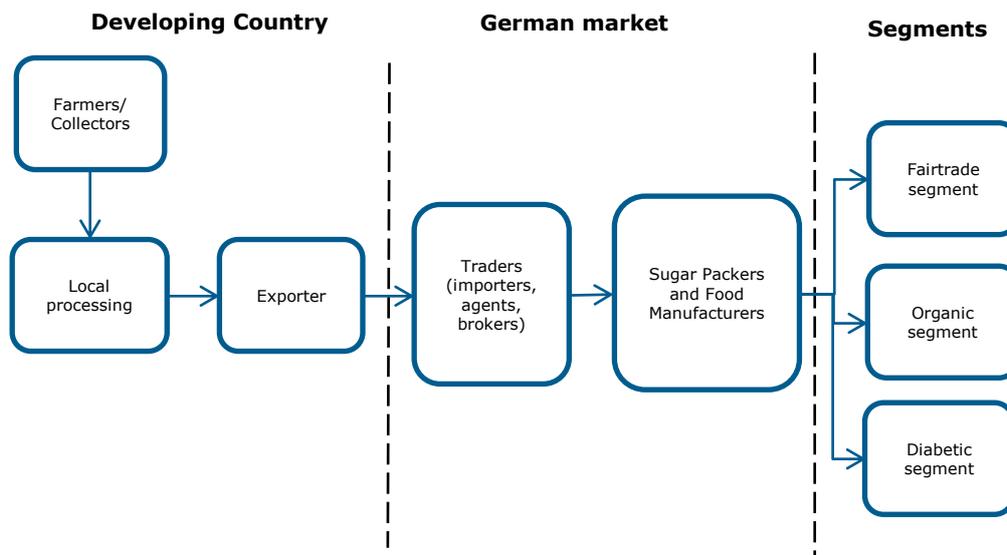
unknown to most consumers who do not have diabetes, this marketing benefit will only gradually become more relevant.

- **Ethical sourcing:** a growing interest in ethically sourced food ingredients is an opportunity for fair trade certified palm sugars.
- **Organic certification:** opportunities exist for organic palm sugar in Germany as it is the largest and growing EU market for organic food. From 2006 to 2012, sales of organic food have tripled, mainly coming from imports. In addition, industry sources have indicated that consumers have the impression that organic sugar is brown.
- Check your possibility to obtain certification for ethical sourcing. Please refer to the section on market segments for more information.
- Discuss opportunities for certification with your buyers. For more information on the EU requirements for organic certification, refer to the buyer requirements.

Market Channels and Segments

Market channels

Figure 3: Major market channels for palm sugar



Please refer to [CBI Tailored Market Intelligence for coconut sugar: Trade Structure and Channels](#) for more information.

Organic and fair trade importers offer most opportunities

- On the German market, as in the EU, there are three main channels; importers of sugars and sweeteners, sugar producers that import sugar as well, and food manufacturers.
- The sugar production in Germany is concentrated with a few manufacturers dominating the domestic market for white sugar. The major sugar manufacturers in Germany are [Suedzucker](#), [Nordzucker](#), [Pfeifer & Langen](#). In addition, German companies can easily buy sugar from manufacturers in neighbouring countries, such as [Tate and Lyle](#) in the

Considerations for action:

- Do not focus on supplying directly to food manufacturers. The latter prefer to purchase from importers, which offer a convenient one-stop-shop. Food manufacturers focus their activities on the development, manufacturing and marketing of foods.
- Agents are particularly interesting if you do not have a strong sales network. A good place to start looking for a commercial agent in Germany is the website of [Handelsvertreter.de](#). They can also assist with the development and implementation of marketing strategies. However, once you have established a trade relationship through an agent, you cannot establish a direct relationship

UK. Sugar manufacturers have supply contracts with sugar beet farmers.

- Trade in sugar is less concentrated than production. In Germany, specialised importers, e.g. organic or fair trade importers, compete in the market for brown sugars and are of most interest to palm sugar exporters. Conventional importers are not expected to adopt niche products such as palm sugar. Some specialised importers are [Rapunzel](#), [Worlee](#), [Care Natur](#), [GEPA](#) and [Naturata](#).
- Palm sugar for the consumer markets is sold in specialised retailers in Germany, such as health food, fair trade or Asian shops.

Market segments

Best opportunities for organic or fair trade segments

- Palm sugar for the consumer market represents the largest food industry segment.
- In the food catering channels, bakeries use palm sugar. The main segments are fair trade, organic and/or diabetic products, which they sell to health shops, retailers focused on organic products and other specialised retailers. Due to the high price of most products containing palm sugar, conventional retailers are only minor buyers of these products.
- Sugar (cane sugar) is the third largest product category in the fair trade market, as measured by the Fairtrade Organisation (FLO). Sales of Fairtrade certified sugar in Germany increased by 9 % from 2011 to 2012. Moreover, compared to 2011, retail sales of Fairtrade certified products in Germany have increased by 33% in 2012 to over € 530 million, which makes Germany the second largest market for Fairtrade products.
- The German market for organic food accounts for almost one third of the total sales value in the EU. It is expected that this implies a potential for organic palm sugar as well.

Prices

High prices of palm sugar compared to other sugar products

- Production costs for palm sugar are \$ 4-5 per kg (€ 3-3.70 per kg). To compare, the main competing product for palm sugar, coconut sugar, is priced at € 3.70 – 4.50 per kg. Prices for conventional refined sugar have been dropping since 2009 to around \$ 0.40 (€ 0.30) per kg in 2012. Cane sugar is priced at around € 1 per kg.
- For exporters who are able to position their product above other sweeteners, premium pricing is an option. This can

with the buyer anymore. The sales network of the agent is protected by law.

- Focus your sales on specialised importers such as organic or fair trade importers. For examples of organic importers, please refer to [Bio-markt.info](#) or [Organic-bio.com](#). Inform importers about the opportunities of palm sugar for diabetic foods.

Considerations for action:

- Focus your promotion efforts on importers that supply directly to end users, such as bakeries or consumer markets.
- Discuss the opportunities for organic or fairtrade certifications with your buyers, for which there are good opportunities in Germany. For more information on specific Fairtrade standards, check the requirements of e.g. [TransFair](#), the German division of Fairtrade International.
- For retail data on Fairtrade certified sugar, refer to [sales data](#) published by TransFair.

Considerations for action:

- Explain the higher price of palm sugar when compared to other brown sugars such as cane sugar. Focus on their mineral content and low GI.
- For more information on the world prices for conventional sugar, check the [Word DataBank](#).
- Use certification standards to obtain a premium pricing. However, always ensure that there is a market for your product.
- Reduce fluctuations in prices of your raw

be done by fair trade or organic certification, or with a good marketing campaign. For such a campaign documentation on product benefits and applications is necessary.

- The boiling of palm saps, which requires large amounts of energy sources (e.g. wood or fuel), is a large part of your cost price. Other contributions to cost price are labour, as collection is labour-intensive, and transportation costs.

materials through agreements with your suppliers.

- Prices of palm sugar cakes often drop during April/May, the months that palm sugar trees (*Borassus* genus) produce sap. Take extra care of keeping costs low during these months to optimise profit.
- Reduce your costs by conserving energy, or by using palm wood as an energy source.

Market competitiveness

Production and competition

- Conventional sugar products are available at low prices and high quantities, which producers of palm sugar cannot compete with. In addition, sugar beet farmers have supply contracts with manufacturers, making it difficult for new producers to enter the market.
- Main competition for palm sugar producers are similar products, most notably raw cane sugar and coconut sugar. Of these, raw cane sugar is priced much lower than coconut and palm sugar, but also has fewer health benefits.
- Sugar palm trees and coconut palm trees grow in a similar region; Southern Asia. As such, direct competition for palm sugar will mostly be regional. It may be complicated to distinguish yourself from these competing products. On the other hand, date palm trees also grow in Northern Africa and the Middle East. Palm sugar producers in these regions have an added benefit of being close to the German market.
- Aside from competition from other sugars, palm sugar competes with natural sweeteners (e.g. corn and agave syrup and apple concentrate). These sweeteners are increasingly used to replace sugar, especially as food ingredients. Compared to these products, palm sugars are expensive and more difficult to process, even though they are healthier.
- Moreover, palm sugar competes with stevia as well, a healthy natural sweetener. The advantage that palm sugar has over stevia is that it does not have the negative aftertaste that is associated with that product.
- As production of palm sugar requires limited know-how, technological barriers to enter the market are relatively low.
- Most sources of palm trees have various uses aside from palm sugar production. Examples of uses are: fuel, timber, wine, animal feed and food (e.g. dates from the date palm tree). Supplier power of DC exporters can change significantly if the trees are used for additional purposes.

Considerations for action:

- Do not attempt to compete directly with conventional sugars as this will be too difficult.
- For more information on coconut sugar, please refer to the [Market Intelligence reports for coconut sugar from the Philippines](#).
- Monitor harvests in the major production countries for competing products such as raw cane sugar (Brazil, India, China, Thailand, Pakistan and Mexico), coconut sugar (Philippines and Indonesia) and palm sugar (Indonesia, Ethiopia, India, Cambodia and Thailand) to anticipate market developments. You may request such information from your buyers.
- Distinguish yourself from stevia, other natural sweeteners and conventional sugar. Stress the unique selling point of palm sugar: as a sugar it does not have the negative aftertaste of stevia while it is healthier than conventional sugar and other natural sweeteners such as corn syrup.
- The first step in processing palm saps needs to be done close to the harvesting locations.
- Examine the other uses of the species of palm trees that you use for palm sugar production to benefit from market diversification. In addition, you can use these by-products for fuel to process palm saps.

Useful sources

Trade fairs

Visiting or even participating in trade fairs is highly recommended as one of the most efficient methods of testing market receptivity, obtaining market information and finding prospective business partners. The most relevant trade fairs for exporters of palm sugar are:

- SIAL (<http://www.sialparis.com/>)
- Food Ingredients Europe (<http://fieurope.ingredientsnetwork.com/>)
- Anuga (<http://www.anuga.com>) in Cologne, Germany, is a food and beverage fair
- Alimentaria (<http://www.alimentaria-bcn.com>)
- Biofach (<http://www.biofach.de>) in Nuremberg, Germany (for organic producers)

This survey was compiled for CBI by ProFound – Advisers In Development, in collaboration with CBI sector expert Freek-Jan Koekoek

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