

# **CBI Product Factsheet: Sesame Oil in Germany**

# 'Practical market insights into your product'

Germany is the largest food market in Europe and one of the largest markets for sesame oil, together with the UK and France. The largest developing country (DC) supplier to Germany is Mexico, while China and Thailand also play a more limited role. Germany offers an interesting proposition to exporters of organic sesame oil. Not only is Germany the largest organic market in Europe, but several German refiners / vegetable oil companies have incorporated organic sesame oil in their portfolios. In addition, 'oils & fats' was one of the fastest growing categories within the organic market in recent years.

#### **Product definition**

Sesame oil is an edible oil derived from sesame seeds (*Sesamum indicum*). It is often used in the Southeast Asian cuisine as a flavour enhancer (e.g. adding it to instant noodles) and worldwide for cooking or industry uses. Additionally, sesame oil is rich in antioxidants and polyunsaturated fats making it a good candidate for controlling blood pressure. The main developing countries producing sesame oil are Myanmar, India and China.

# Codes for sesame oil:

• Harmonised System (HS) → edible sesame oil is included in:

HS code	Description
1515 5019	Crude sesame oil for human consumption
1515 5099	Refined sesame oil for human consumption

### **Product specifications**

#### Quality

# General:

- The main quality problems associated with sesame oil are contamination and oxidation (rancidity). Although sesame oil has a relatively high oxidative stability (i.e. long shelf life), this stability is dependent on the extraction method and seed pre-treatment. This makes it crucial that special care is taken in all steps of the production process, from harvesting to distribution.
- Make sure that the raw material (i.e. sesame seeds) is fresh and that there are no long delays



Source: Sesame Growers

- between harvesting and extraction. Sesame seeds should also be free from sand, stalk, plant debris and other foreign materials.
- Some of the most important quality factors concerning sesame seeds are:
   odour and flavour, oil content, and damaged/mouldy seeds. Sesame seeds
   should also be free from aflatoxin or salmonella, which will prevent oil
   contamination as well. Aflatoxin and salmonella are known to be a problem
   for many producers, and buyers closely monitor this aspect.
- Sesame oil can be produced from black (hulled) or white (de-hulled) sesame seeds. Specifications will depend on your buyer's preferences and your technical capacities (including possible de-hulling).
- Toasting of the (hulled) seeds increases the oxidative stability of sesame oil, but the conditions of toasting (e.g. appropriate roasting time and temperature) will influence the sensory quality and composition of the oil.
- Ensure proper extraction conditions: dosage of processing aids, temperature, pressure/vacuum, flow rate, etc.
- Prevent adulteration and contamination by other foreign materials (e.g. dust) by keeping facilities and equipment clean.
- Ensure proper storage and transportation (see 'Packaging').

### Organic (if relevant)

- Comply with organic standards for the production of the raw material: no use of synthetic pesticides, use of natural fertilisers, natural control of weeds, etc.
- Do not use solvents or other chemical substances during oil extraction.
   Preferably dedicate the processing plant to the production of organic oils only, in order to avoid contamination from non-organic particles. If this is not possible, ensure thorough cleansing of machinery and equipment at all times.

# Labelling

- Ensure traceability of individual batches.
- Use the English language for labelling unless your buyer has indicated otherwise.
- · Labels must include the following:
  - Product name
  - o Manufacturers lot or batch code
  - o If the product is destined for use in food products
  - o Declaration of allergenic substances
  - o Name and address of exporter
  - o Products country of origin
  - o Shelf life: Best before date/ use by date
  - Net weight/volume in metric units
  - Recommended storage conditions

**Organic (if relevant):** Name/code of the inspection body and certification number.

# **Packaging**

- Sesame oil is transported in different types of containers (e.g. tank containers, IBC containers, flexi tanks, drums) depending on volumes transported and local availability of such containers. Buyers might have specific packaging requirements as well.
- Organic sesame oil should remain physically separated from conventional oils
- Ensure preservation of quality by:
  - o Cleaning and drying the container before loading the oil.
  - o Not loading rancid sesame oil.
  - Filling the tanks or drums as full as possible in order to avoid ventilation and light. This will prevent oxidation, thus rancidity.



Source: Sesame Real



Source: Rapunzel

 Sesame oil is liquid under regular transport conditions, but ensuring appropriate temperature control during travel will prevent oxidation.

# Requirements you must meet

**Maximum level for erucic acid in oils and fats:** EU legislation fixes a maximum level of erucic acid in oils and fats intended for human consumption.

**CFA¹:** Check out the maximum levels for erucic acid on <u>EU legislation:</u> Maximum level for erucic acid in oils and fats.

**Extraction solvents for food:** There are EU rules for the marketing and application of extraction solvents used in the production of foodstuffs and food ingredients.

**CFA:** Find out which <u>Extraction solvents for food</u> you can use and the conditions for use.

**Contaminants in food:** The EU has laid down maximum levels of contaminants in food, including ingredients such as vegetable oils.

**CFA:** For more information, read the CBI study on <u>EU legislation: Contaminants in food</u>.

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

**CFA:** If the agricultural raw material (sesame seed) for your oil has been treated with pesticides, verify that residues remain within limits. For more information, consult the specific EU legislation: <a href="Maximum Residue Levels">Maximum Residue Levels</a> (MRLs) of pesticides in food.

**Additives, enzymes and flavourings in food:** The EU has set a list of permitted flavourings and requirements for their use in foodstuffs intended for human consumption, which includes vegetable oils. This is particularly relevant to food manufacturers. However, insight into this legislation can help you to understand their requirements.

**CFA:** Familiarize yourself with the concerns of the end-users of your products by checking EU legislation on <u>Additives</u>, <u>enzymes and flavourings in food</u>.

**Hygiene of foodstuffs:** Food business operators shall put in place, implement and maintain a permanent procedure, or procedures, based on the HACCP (Hazard Analysis and Critical Control Points) principles. This also applies to the import of food to the EU and export from the EU.

**CFA:** Ensure compliance with EU legislation on <u>Hygiene of foodstuffs (HACCP)</u>.

**Labelling:** In case you are supplying consumer labelled products (in for example bottles and containers) you will have to take into account labelling requirements laid down in <u>EU Regulation 1169/2011</u>.

#### Allergens

Pre-packed products that contain allergens (i.e. sesame seeds in sesame oil) have to be labelled in such a way that it is clearly visible to consumers that they

Source: CBI Market Information Database • URL: www.cbi.eu • Contact: marketintel@cbi.eu • www.cbi.eu/disclaimer

<sup>&</sup>lt;sup>1</sup> Consideration of action

contain allergens. Refer to Annex IIIa in <u>Directive 2003/89/EC</u>, amending Directive 2000/13/EC for an overview of all allergens.

CFA: Read more about food labelling in the EU Export Helpdesk.

# **Common requirements**

**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.

**CFA:** Suppliers can apply a basic HACCP system. However, if they aim to supply food manufacturers more directly, it is necessary to have a certified food safety management system recognised by the Global Food Safety Initiative, such as ISO 22000, BRC or IFS. Visit the website of the <u>Global Food Safety Initiative</u> for more information.

# **Niche requirements**

**Regulation (EC) 834/2007 on organic agriculture:** The EU has established requirements on the production and labelling requirements with which an organic product of agricultural origin <u>must</u> comply in order to be marketed in the EU as "organic".

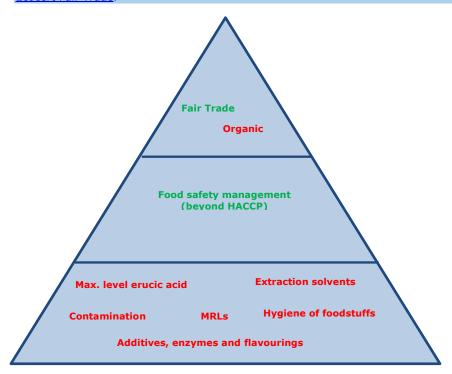
**CFA:** If you do choose to obtain a certificate for organic production, find out more about <u>Organic production and labelling</u>.

**CFA:** Make sure that your organic certification is harmonised with the <u>EU/EFTA</u> <u>legislation</u>.

**Fair Trade:** FLO International is the leading standard-setting and certification organisation for Fairtrade. Products which carry the Fairtrade label indicate that producers are paid a Fairtrade Minimum Price. FLO has a minimum price for sesame seeds (raw material for sesame oil). Other fair trade standards available in the European market are Fair Trade Ecocert and IMO's Fair for Life.

**CFA:** Before jumping into Fairtrade certification, make sure to assess (in consultation with your potential buyer) if this label has sufficient demand in your target market and whether it will be cost beneficial for your product.

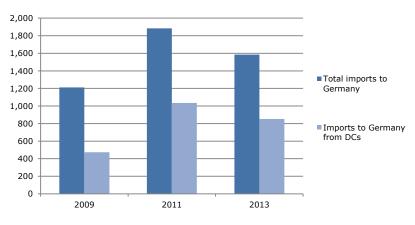
**CFA:** Although <u>FLO</u> certification is the leading fair trade certification scheme in Europe, you can also check out other schemes such as IMO's <u>`Fair for Life'</u> and Ecocert Fair Trade.



# **Trade and Macro-economic statistics**

#### **Imports**

Figure 1: Total imports of sesame oil to Germany, in tonnes.



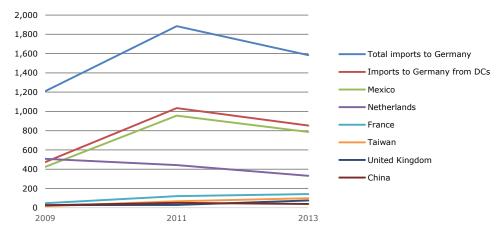
Source: Eurostat (2014)

- Germany is the second largest importer of sesame oil in EU and EFTA (after the UK), accounting for 16% of total imports in 2013. Of the 9.6 thousand tonnes imported to the EU and EFTA in 2013, 1.6 thousand tonnes (€ 5.6 million) were directed to Germany.
- German imports of sesame oil have increased at a significant annual average rate of 25% between 2009 and 2011, but declined by 8.3% annually

- between 2011 and 2013. Sesame oil is imported in lower quantities and does not have a large market when compared to oils such as palm oil, coconut oil, etc. It is thus subjected to market fluctuations year by year.
- Approximately 54% of German imports (853 tonnes) in 2013 were sourced from DCs exporters. This reflects an increase in the share of sesame oil imports from DCs since 2009. Imports from DCs have also grown in absolute terms, at an annual average rate of 16% in volume and 18% in value.

**CFA:** Keep track of developments in the German trade for sesame oil and identify developments such as the emergence of new suppliers and decline of established ones. A good source for analysing German trade dynamics yourself, also in relation to the EU and EFTA, is the <u>Eurostat Statistics Database</u>. Another interesting source is the website of <u>Fediol</u> (Federation of the European Vegetable Oil and Protein meal Industry).

Figure 2: Imports of sesame oil to Germany; total imports of sesame oil from world, total imports of sesame oil to Germany from DCs and the largest markets (in terms of 2013 volume) exporting sesame oil to Germany, 2009-2013 in tonnes



Source: Eurostat (2014)

- The main DC supplier of sesame oil to Germany is Mexico (50% of total imports). By far the largest supplier, Mexico had an annual increase of 17% in volume and 18% in value since 2009, amounting to 786 tonnes (€ 2.2 million) in 2013.
- Other smaller DC suppliers to Germany are China and Thailand. In 2013, they accounted together for 49 tonnes (approximately € 0.2 million) of the sesame oil supplied to the German market.
- Among intra-EU suppliers, the Netherlands serves as an important (re-) exporter to Germany (21% of total German imports). Nonetheless, this share has declined since 2009 at an annual rate of 10% in volume. Contrarily, France's share as intra-EU supplier has increased since 2009, supplying 8.9% of the German sesame oil market in 2013.

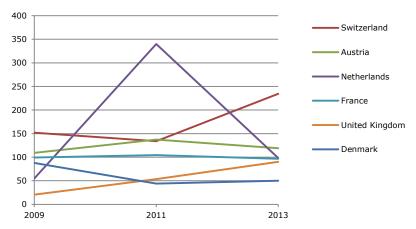
**CFA:** The <u>FAOSTAT</u> is an interesting source to keep up-to-date on the statistics of producing countries. Identify your potential competitors and learn from them in terms of:

- Marketing: website, social media, trade fair participation, etc.
- Product characteristics: origin, quality, taste, etc.
- Value addition: certifications, processing techniques

**CFA:** Get acquainted with production and export dynamics of dominant DC suppliers of sesame oil to Germany, mainly Mexico. For specific sesame oil data and statistics visit the <u>Eurostat</u> website. For a broader overview and analysis of these economies you can visit the <u>World Bank</u> or <u>IMF</u> websites that offer a great deal of data and statistics.

#### **Exports**

Figure 3: Exports of sesame oil from Germany; the largest countries importing sesame oil from Germany (in terms of 2013 volume), 2009-2013 in tonnes.



Source: Eurostat (2014)

- In 2013, Germany (re-) exported 1.2 thousand tonnes (€ 5.8 million) of sesame oil, making it the second largest exporter in Europe (after the Netherlands). German exports have increased in value (approximately 12%) since 2009. This growth figure reflects both an increase in volume (9.4%) as well price increases since 2009.
- The main destinations for German sesame oil exports in 2013 were European countries, namely Switzerland (234 tonnes), Austria (119 tonnes) and the Netherlands (98 tonnes).
- Significant increases in German (re-) exports since 2009 include the United Kingdom and Canada. Contrarily, German exports to France and Denmark declined.

**CFA:** Being the second largest re-exporter of sesame oil in Europe, consider Germany as a possible entry point into surrounding European countries. It is especially interesting to investigate possibilities in neighbouring land-locked countries such as Switzerland and Austria, which are the main destinations for German exports.

**CFA:** The website of <u>FoodDrinkEurope</u> could be an interesting source to understand consumption patterns of food products, including sesame oil, across different European countries.

# Consumption

- Consumption of sesame oil in Germany has remained at 1 thousand tonnes for the period between 2008 and 2012, making it one of the most important markets in the EU. Germany accounts for 17% of the total EU market for sesame oil.
- The use of sesame oil is increasingly popular in Germany, especially in urban areas such as Berlin, Hamburg and Munich, where ethnic restaurants and cafes (Southeast Asian, Indian, Chinese, fusion, etc.) offer dishes using

sesame oil as an ingredient or as a dressing. Sesame oil is also gaining space in supermarket shelves and organic shops. Germany accounts for 30% of the organic food market in Europe (as discussed under 'Trends'), thus organic-certified sesame oil is also an important niche product in this market.

**CFA:** Study your target market in order to make an educated decision when exporting sesame oil. It is important to understand factors such as product application, taste preferences, competing suppliers and potential buyers in the German market. General sources for learning more about Germany include <a href="CIA's World Factbook">CIA's World Factbook</a> and, more specifically, the <a href="Federation of German Food and Drink Industries">Federation of German Food and Drink Industries</a>.

**CFA:** Find out more about consumption and production, also for other European countries, through the statistics provided by <u>FAOSTAT</u> and <u>Fediol</u> (Federation of the European Vegetable Oil and Protein Meal Industry).

#### **Market trends**

#### Organic sesame oil in Germany

- In 2012, the German organic market was the second largest in the world, amounting to €7.0 billion in sales (compared to the almost € 23 billion worth of sales of the largest global market, the USA). With an € 68 per capita consumption level in 2012 (FIBL, 2014), the popularity of organic foods in Germany is driven largely by consumers' desire to achieve a long and healthy life. In 2013, the organic food market grew by 7.0%, accounting for around 4.0% of the entire German food market (AMI and Organic World, 2013).
- The product group fats (incl. vegetable oils) accounted for 3.3% of total German organic food sales in 2012. Despite its small market share, sales of fats and oils achieved one of the highest growth rates in organic food sales in Germany, with an 11% growth rate in 2012.
- Organic sesame oil is one of the vegetable oils gaining popularity in the German food market. Some interesting players marketing organic sesame oil include Europe's leading manufacturer and distributor of organic foods, Rapunzel. Other brands supplying the German market of sesame oil include <u>Biokorntakt</u>, <u>Henry Lamotte Oils</u>, and <u>Gustav Hees</u>.

**CFA:** Investigate the opportunities to certify your product according to organic and/or fair trade standards. <u>IFOAM's Organic Information Hub</u> is a good starting point to get familiar with organic certification.

**CFA:** Consult the website of the <u>Organic Food Industry Federation (BÖWL)</u> for further information on the German organic market and its main players. Also consider visiting <u>Biofach</u>, the largest organic trade fair worldwide, which takes place annually in Nuremberg. The website of Biofach can also be interesting in terms of browsing through exhibitors which handle sesame oil.

### Sesame allergy

- According to the <u>American Dietetic Association</u>, tree nut allergies affect 8.5% of the German population, which raises concerns on the population's vulnerability to sesame seeds, the raw material for sesame oil. Sesame seed allergy is the most common type of seed allergy in Europe.
- Sesame oil is normally used unrefined in food products to preserve its authenticity, thus containing traces of allergens which are hazardous to susceptible consumers.

**CFA:** Make sure to label your product correctly in order to inform the consumer of possible traces of allergens. Learn more about labelling of oils containing

allergens at the  $\underline{\text{Fediol}}$  website. Also refer to the 'Requirements you must meet' section of this document for further information on labelling.

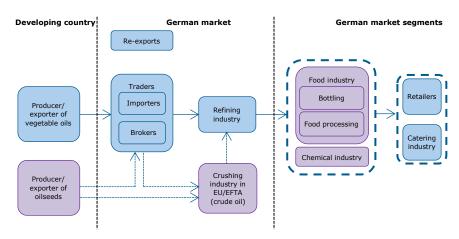
**CFA:** Emphasize the production process, origin and benefits of your sesame oil. Not only will this contribute to bringing attention to its positive aspects, but can also limit the direct association to sesame allergens.

**CFA:** Stay informed on sesame allergy updates and implications for sesame products by visiting the website of the <u>European Academy of Allergy and Clinical Immunology</u>.

# Market channels and segments

#### **Market channels**

Figure 5 Trade channels for sesame oil in Germany



The trade channels for sesame oil do not deviate from the general structure for vegetable oils as described in <u>CBI Market Channels and Segments for Vegetable Oils</u>.

In general, the following margins can be expected:

- Brokers: ranging from approximately 0.5 to 2%, or fixed price per tonne
- Importers: will depend on whether the oil is simply being forwarded (5-10%), or whether the importer has to re-sell specific quantities (10-20%).
- Refiners charge a fixed amount per tonne of oil refined, approx. € 200-300/tonne.
- The margins charged by other industry players such as food manufacturers, bottlers and retailers will highly depend on the nature of the final product. Figure 5 provides an overview of the main segments for sesame oil.
- Note that sesame oil is mainly considered to be a speciality oil in Germany/Europe (i.e. it is not treated as a commodity). However, there are still differences between conventional and premium sesame oil, as shown in Figure 5.

**CFA:** If you are able to produce large volumes for large multinationals, make sure you have adequate quality control systems.

**CFA:** If you are dealing with smaller volumes or specialised sesame oil, traders are quite certainly the most suitable entry point.

**CFA:** Link up with sector associations and be part of cooperatives if you cannot reach the required volumes by yourself.

**CFA:** If you are a starting exporter, brokers can be your entry point into Germany as they are trusted by the European edible oil sector, which can make up the lack of reputation of a starting DC exporter.

**CFA:** Comply with sustainability standards required by your specific segment and stay up-to-date on developments in this respect. For information on the various sustainability standards visit the <u>ITC</u> website on the voluntary standards that are available for exporters.

#### **Market segments**

Sesame oil is mostly used in the food industry, where it can be segmented into:

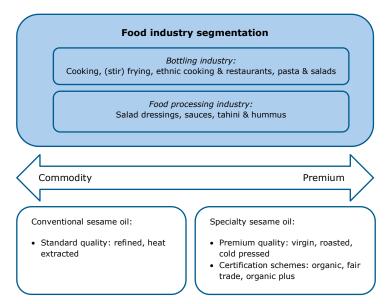
- Food processing industry: ingredient to manufacture semi-finished or final food products
- Bottling industry: bottled as a final product

Figure 6 describes the main uses of sesame oil in Germany within these two segments.

Sesame oil can be further segmented into conventional and premium oil. This segmentation approach differs from the general segmentation of vegetable oils as described in <u>CBI Market Channels and Segments for Vegetable Oils</u>, where the two segments consist of 'commodity' and 'speciality'. As mentioned above, sesame oil is considered to be a speciality oil in Germany/Europe; it is not traded as a commodity.

The main differences between conventional and premium sesame oil are described in Figure 6.

Figure 6: Segmentation of sesame oil in Germany



#### **Price**

#### **Price developments**

Sesame oil is traded in lower quantities than other (commodity) vegetable oils, but at a higher value. There are no global sesame oil prices available because the market for sesame oil is not centralised or regulated internationally, having no objective mechanisms for price reporting.

Prices for the raw material (i.e. sesame seeds) are available and give a rough indication of developments in the price of the oil. Sesame seed prices can be consulted on the CBI Product Fact Sheets Sesame Seeds: Germany, Netherlands, Poland and Greece.

**CFA:** Develop sustainable, trust-based, relationships with new buyers in order to profit from the current international scenario for groundnut oil in the long run.

**CFA:** Keep an eye on crop levels in various suppliers of sesame worldwide in order to anticipate price and other international market developments. The website of <u>FAOSTAT</u> is a useful statistical source for this purpose.

#### **Useful sources**

- The EU Vegetable Oil and Protein meal Industry www.fediol.eu
- The Food and Agriculture Organisation of the United Nations has a variety of agricultural databases - <u>faostat3.fao.org</u>
- For information on the latest market developments in the Oils and seeds sector, visit The Public Ledger - <u>publicledger.agra-net.com/oils</u>
- The European Academy of Allergy and Clinical Immunology for information on allergy trends and information in Europe - <a href="https://www.eaaci.org">www.eaaci.org</a>
- Organic Food Industry Federation (BÖWL): <u>www.boewl.de</u>
- The Federation of German Food and Drink Industries: www.bve-online.de
- Biofach: www.biofach.de

#### More information

CBI market information: Promising EU export markets.

EU Expanding Exports Helpdesk - <a href="http://exporthelp.europa.eu">http://exporthelp.europa.eu</a> - go to 'trade statistics'. Eurostat - <a href="http://epp.eurostat.ec.europa.eu/newxtweb">http://epp.eurostat.ec.europa.eu/newxtweb</a> - statistical database of the EU. Several queries are possible. For trade, choose 'EU27 Trade Since 1995 By CN8'. International Trade Statistics - <a href="http://www.trademap.org">http://www.trademap.org</a> - you have to register

This survey was compiled for CBI by ProFound –
Advisers In Development
in collaboration with CBI sector expert Joost Pierrot

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