CBI Product Factsheet:

Sesame seeds in Poland
Introduction

The Polish sesame seed market is largely dependent on imports from developing country suppliers. Sesame seeds are mainly applied as an ingredient for bakery and confectionery products; several traditional Polish sweets contain sesame. This market requires high-quality seeds in terms of appearance, purity and uniformity. The organic market in Poland has been rising at a fast pace, but still provides limited opportunities to developing countries. In addition, Poland could be an interesting market for sesame seed products such as tahini.

Product definition

Sesame seeds (Sesamum indicum) are grown primarily for their oil content. In Europe, sesame seeds are primarily used for toppings on bakery products. e.g. bread, bagels, hamburger buns, and confectionery. Restaurants and natural food consumers purchase sesame seeds for use in ethnic dishes. Sesame seeds can also be used in snacks and crackers, often in the form of "sesame sticks". Sesame seeds are supplied by countries in Africa, Latin America and South Asia.

Codes for sesame seeds:
- Harmonised System (HS) → sesame seeds, excl. for sowing, are included in:

<table>
<thead>
<tr>
<th>HS code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1207 4090</td>
<td>Sesame seeds, excl. for sowing</td>
</tr>
</tbody>
</table>

Product specifications

Quality

General:
- There are different types and qualities of sesame seeds. White seeds are a white-to-golden colour and receive a higher market price than mixed seeds, which range from yellow to dark brown. White seeds are used primarily in natural or hulled form because of their aesthetic value, whereas mixed seeds are generally crushed into oil.
- Make sure that the sesame seeds are fresh and that there are no long delays between harvesting and transportation. 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, flavour, oil content, moisture content, colour, size, uniformity of seeds, purity and damaged/mouldy seeds. Sesame seeds should also be free from mycotoxins and harmful microbiological activity. Aflatoxin and Salmonella contamination are known to be a problem for many producers, and buyers closely monitor these aspects.
- The minimum quality requirements for sesame seeds will depend greatly on the end-product the seed will be used for, e.g. tahini needs a sweet taste and aroma (some origins are not suitable), bakery purposes (high purity levels required), sesame oil (clarity is important); the use of either natural or hulled sesame seeds will also depend on the end-product.
- Prevent contamination by keeping facilities and equipment clean.
- Ensure proper storage and transportation (see 'Packaging').

Organic (if relevant)
- Comply with organic standards for the production of sesame seeds. Refer to the section on ‘Niche requirements’ for further details on organic production and labelling.

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
  - Manufacturer’s lot or batch code
  - If the product is destined for use in food products
  - Name and address of exporter
  - Product’s country of origin
  - Shelf life: Best before date/ use by date
Organic (if relevant):
Name/code of the certifying body and certification number

Packaging
- Sesame seeds for the European market are transported in containers in paper sacks, bags of woven natural materials (e.g. jute) or woven plastic polypropylene / polyethylene (PP/PE) bags. Buyers may have specific additional packaging requirements.
- They are usually shipped in containers with a capacity of between 16 and 19 tonnes, and in 25kg or 50kg bags.
- Organic sesame seeds should remain physically separated from conventional sesame seeds.
- Ensure preservation of quality by:
  - Thoroughly cleaning and fumigating the holds or containers before loading the seeds.
  - Protecting the cargo from moisture during loading so 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.

Trade and Macro-economic statistics

Imports

Figure 1: Total imports of sesame seeds to Poland, x 1,000 tonnes.

Source: Eurostat, 2015

- In 2014, the total amount of sesame seeds imported into Europe amounted to 153,000 tonnes and around €306 million.
- Poland is an important player in the European sesame seed market, accounting for 7.2% of total European imports in 2014. Poland steadily imported a yearly volume of around 11,000 tonnes of sesame seeds between 2010 and 2014, which increased significantly in value in this period (+14% annually since 2010), amounting to €21 million in 2014.
- Around 81% of total Polish imports of sesame seeds originated directly from developing countries in the review period, amounting to around 8,900 tonnes (€16 million) in 2014, following a slight annual increase of +0.5% in volume and a significant increase of +13% in value since 2010.

Tip:
- Monitor developments in the Polish trade for sesame seeds and identify developments such as the emergence of new suppliers and decline of established ones. A good source for analysing the Polish trade dynamics yourself is the Eurostat Statistics Database.
Poland mainly sources sesame seeds from developing countries, with the most significant one being India. In 2014, India accounted for 49% of total Polish imports of sesame seeds (the European Union as a whole imports 40% from India), amounting to around 5,400 tonnes/€10 million. Indian supplies decreased by -2.9% annually in volume, but have increased significantly in value at an annual average rate of +10% since 2010. Production of sesame in India is expected to decline in the long run due to the increasing pressure on land and a rising middle class (i.e. fewer individuals engaged in primary production). A general shift in sesame production from India (and China) to Africa is being witnessed in the international market.

In this respect, Nigeria is also an important sesame seed exporter to Poland, accounting for 12% of total Polish imports. Nigeria has shown an increase of +11% in volume and +24% in value since 2010.

Other smaller but significant developing country suppliers to Poland are Pakistan and Paraguay, accounting for respective shares of 5.8% and 4.8% of total Polish sesame imports. Both countries have recorded a significant annual average increase in terms of both volume and value. For Pakistan, the annual growth rates were +38% in volume and +28% in value, while for Paraguay the rates were +74% and +91%. Following this increase, Pakistan reached 636 tonnes of sesame supply to Poland, and Paraguay reached 528 tonnes.

Significant intra-European suppliers of sesame seeds are Germany (9.0%) and the Netherlands (3.2%), which are large trade hubs and also important re-exporters of sesame seeds within Europe.

Tips:
- Identify your potential competitors and learn from them in terms of:
  - Marketing: website, social media, trade fair participation, etc. Well-structured websites include: Agro Organic Exports (India); Sindan Organic (Bolivia).
  - Product characteristics: origin, quality, oil content, etc.
  - Value added: certifications, processing techniques.

Exports

Figure 3: Exports of sesame seeds from Poland; the largest countries importing sesame seeds from Poland (in terms of 2014 volume), 2010-2014 x 1,000 tonnes.
In 2014, Poland (re-)exported 2,600 tonnes / €3.1 million of sesame seeds to other countries. Following a slight decrease between 2010 and 2012 due to declining exports to the Czech Republic, growth in Polish exports picked up between 2012 and 2014, increasing at a significant annual rate of +36%.

In 2014 Germany became the largest destination for Polish re-exports of sesame seeds. 67% of Polish re-exports of sesame seeds were to Germany, reaching a volume of 1,800 tonnes. In the same year, the Czech Republic received 279 tonnes (11% share in volume), Ukraine 127 tonnes (4.8%), Hungary 114 tonnes (4.3%) and Belgium 94 tonnes (3.6%) of Polish sesame seed exports.

Consumption

Apparent consumption of sesame seeds in Poland amounted to 8,400 tonnes in 2014, showing an average annual decline of -3.0% since 2010. This can be largely attributed to higher sesame prices.

Consumption of sesame seeds in Poland absorbs almost all imports, since it accounts for around 90% of sesame seed imports in the review period. This makes Poland an appealing end-market for sesame seed exporters.

Poland does not produce sesame seeds, making the country entirely dependent on imports.

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1 Apparent consumption: defined as a calculation of (imports – exports) + production.
Market trends

The Polish bakery sector
- The Polish cuisine is famous for its multifarious types of bread among which several seeds such as poppy and sesame seeds are extensively used. This makes sesame seeds a vital ingredient in the Polish bakery industry. The high consumption of bread in Poland has made sesame seeds very popular.
- The influence of different sesame seed-using cuisines in Poland and the high consumption of bakery products makes the Polish market very interesting for sesame seed exporters.

Salmonella risk in sesame seeds
- After the 2001 salmonella outbreak in several European countries caused by contaminated sesame seeds found in halva, food safety concerns have tightened up. In particular, in 2005 another outbreak in Germany was caused by sesame products imported from India via Poland.
- More recently, in 2010, Salmonella presence in sesame seed mixes that were imported by Bolivia was reported in Ireland. In the USA, a multistate outbreak of salmonella in 2011, caused by the consumption of tahini, raised awareness of the food-safety-related issues for sesame seed worldwide. One of the 'kill steps' of salmonella is the roasting of sesame seeds, which is not done during the traditional process of making tahini.
- An incident such as those experienced in the past with sesame seed could seriously damage demand and consumer confidence.

Tips:
- Find out more about consumption and production in Poland through the statistics provided by FAOSTAT and Fediol (Federation of the European Vegetable Oil and Protein meal Industry).
- Additionally make sure you follow the organic market developments in Poland. An interesting source is the FIBL-Organic Europe website, which offers country-specific reports and information.

Tips:
- Promote the high nutritional value of sesame seeds and the product’s possible applications in bakery.
- Make sure your product characteristics and quality match your target market and end-user in:
  - Taste and odour
  - Oil content
  - Purity level & uniformity
  - Hulled/natural
- Keep different types of sesame seeds separate, e.g. do not mix seeds from different origins.
- Get informed about the Polish bakery and general food industry by visiting the website of the Polish Federation of Food Industry (PFPZ).

Tips:
- If you are an emerging producer/exporter promote the origins of your product in order to avoid unnecessary associations with previous salmonella outbreaks.
- On the website of the Rapid Alert System for Food and Feed (RASFF), you can browse through various border rejections and alerts for ‘sesame seed’ under category ‘nuts, nut products and seeds’. In this manner, you can learn about common problems faced by suppliers during border controls and adopt appropriate measures to avoid them.
- Take the appropriate pre and post-harvest measures needed to avoid the occurrence of Salmonella, Aflatoxin and other sources of contamination in your seeds. The Empres Food Safety Guide (in FAO’s website) regarding prevention and control of salmonella and E. coli is a good point of departure.
- Be familiar with FEDIOL’s Hygiene Guides, including set procedures dealing with salmonella and other sources of contamination.

Polish organic market is on the rise
- East European countries with traditionally underdeveloped organic markets have started to become important players in the European organic scene. Poland is the country with the highest population in Eastern Europe and is the second largest organic market in the region after Germany.
- According to a BioFach publication, sales of organic food in Poland reached around € 85 million in 2011, marking a 25% increase since the year before. It is estimated that the market increased by at least another 20% in 2012 and in
subsequent years - more recent figures are not available. IFOAM and FiBL further report (The World of Organic Agriculture, 2015) that Poland had 30 organic-certified importers and 312 processors in 2012.

- For sesame seeds, this means that niche applications such as organic-certified baked products, crackers, health bars, hummus, tahini, etc. could offer increasingly interesting market prospects in Poland.

**Tips:**

- Consult the website of [FIBL-Organic Europe](http://www.fibil.org) for further information on the Polish organic market.
- Investigate the possibilities for organic certification, including the opportunities and costs involved in the process. Some supply chains may find certification easier than others if pesticides are not part of day-to-day agriculture.
- For information on organic certification in Europe, visit the website of [Organic Farming](http://www.efa.org) in the European Union.
- Consult the [International Federation of Organic Agriculture Movements](http://wwwIFOAM.org) website for information on certification standards.

**What legal requirements must my product comply with?**

**Contaminants in food:**

The European Union has laid down maximum levels of contaminants in food, including ingredients such as sesame seeds.

**Tip:**

- Check out the maximum levels for [contaminants in food set by European Union legislation](http://ec.europa.eu/food/food/food_safety/food_contaminants/).

**Maximum Residue Levels (MRLs) of pesticides in food:**

European Union legislation has been laid down to regulate the presence of pesticide residues (MRLs) in food products.

**Tip:**

- If the sesame seeds have been treated with pesticides, verify that residues remain within limits. For more information, consult the specific European Union legislation: [Maximum Residue Levels (MRLs) of pesticides in food](http://ec.europa.eu/food/plant_protection/pesticides/).

**Additives, enzymes and flavourings in food:**

The European Union has set a list of permitted flavourings and requirements for their use in foodstuffs intended for human consumption, which includes sesame seed. This is particularly relevant to food manufacturers. However, insight into this legislation can help you to understand their requirements.

**Tip:**

- Familiarize yourself with the concerns of the end-users of your products by checking European Union legislation on [additives, enzymes and flavourings in food](http://ec.europa.eu/food/food/food_safety/food_additives/).

**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 European Union and export from the European Union.

**Tip:**

- Ensure compliance with European Union legislation on [Hygiene of foodstuffs (HACCP)](http://ec.europa.eu/food/food/food_safety/food_hygiene/).
What additional requirements do buyers often have?

**Food safety management:**

Buyers commonly require their suppliers to 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.

**Tip:**
- 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, British Retail Consortium (BRC) or International Featured Standards (IFS) Food. Visit the website of the [Global Food Safety Initiative](https://www.gfsi.org) for more information.

What are the requirements for niche markets?

**Regulation (EC) 834/2007 on organic agriculture:**

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

**Tips:**
- In general, the market for organic sesame seed is still a niche segment. If you do choose to obtain a certificate for organic production, find out more about [Organic production and labelling](https://ec.europa.eu/food/organic/labels_en).
- Make sure that your organic certification is harmonised with the [European legislation](https://ec.europa.eu/food/organic/labels_en).

**Fair Trade:**

Fairtrade Labelling Organisations International (FLO) 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 seed. Other fair trade standards available in the European market are Fair Trade Ecocert and the Institute for Marketecology’s Fair for Life.

**Tips:**
- Before engaging in a Fairtrade certification programme, make sure to check (in consultation with your potential buyer) that this label has sufficient demand in your target market and whether it will be cost beneficial for your product.
- Although FLO certification is the leading fair trade certification scheme in Europe, you can also check out other schemes such as IMO’s 'Fair for Life' and [Ecocert Fair Trade](https://www.ecocert.com/fair-trade).
Market channels and segments

Market channels

Figure 5: Trade channels for sesame seeds in Poland

Within the Polish food sector, sesame seed trade channels and segments revolved around their end use:

- **The crushing industry** relates to the segment in which sesame seeds are crushed to produce sesame oil. FEDIOL figures indicate that sesame-crushing activities in Poland amounted to 5,000 tonnes in 2013, making it the largest such processor in Europe.

- **The edible seed industry** can be divided into two:
  - **Food manufacturing**: sesame seeds are used as an ingredient for the Polish food processing industry in products such as breakfast cereals and snack bars. These industries source mostly through importers, though some larger industries source directly from developing country exporters.
  - **Confectionery**: sesame seeds are also used on the surface of breads and other bakery products to enrich their flavour and aroma. Sesame is also widely used in some traditional Polish confectionery products such as halva and pasteli.

In Asian markets, sesame seeds can be regarded as a commodity, whereas the European market (including Poland) sees this product as a ‘food ingredient’. In this respect, European buyers are willing to pay higher prices to suppliers who offer high quality and comply with requirements.

Sesame seeds are classified into three main grades, which also relate to the end-use of the seed as described above: 1) crushing grade; 2) food grade; 3) confectionery grade. Within these grades, sesame seeds can be further segmented into: non-certified sesame seeds and certified sesame seeds.

Figure 6: Segmentation of sesame seeds in Poland

Food market segmentation

**Edible seed industry**

- Food manufacturing: breakfast and snack products
- Confectionery and bakery: bakery and traditional sweets (halva, pasteli)

**Crushing industry (Sesame oil)**

Non-certified Certified

Conventional high quality sesame seeds Certified high quality sesame seeds: organic, fair trade, organic plus
Price

- Price levels for sesame seeds from different origins show similar developments, thus indicating a price interdependency between the various global suppliers. In addition, the international market depends greatly on the annual volumes produced in both India and China. China produces large quantities of sesame seeds each year to meet the substantial domestic demand for sesame seeds. Any delay or failure in Chinese crops puts a constraint on the global availability of sesame seeds, which has an impact on price levels as well.
- Sesame prices have been volatile since 2009, but experienced a steady increase from the end of 2012 due to tightening supplies, reaching between US$2,000 and US$2,500 per tonne, depending on the origin and quality. Nonetheless, prices crashed through 2014 and early 2015, ranging between US$1,200 and US$1,500 on poor Chinese demand and good production levels worldwide.

Tips:
- Develop sustainable relationships with buyers in order to profit from the current international scenario for sesame seeds in the long run.
- Develop good market information systems so as to be aware of market movements in sesame seeds worldwide.

Useful sources

- The EU Vegetable Oil and Protein meal Industry - [www.fediol.eu](http://www.fediol.eu)
- Polish Federation of Food Industry - [www.pfpz.pl/index](http://www.pfpz.pl/index)

More information

CBI market information: Promising EU export markets.
CBI Market Intelligence

P.O. Box 93144
2509 AC The Hague
The Netherlands

www.cbi.eu/market-information
marketintel@cbi.eu

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

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