



CBI Product Factsheet: Sesame seeds in Greece

'Practical market insights into your product'

Sesame seeds are an essential part of Greek cuisine. Greece buys both hulled and natural sesame seeds, providing opportunities for suppliers with and without hulling facilities. However, ongoing political and economic problems in the country have increased counterparty risks. This means suppliers have to be cautious in finding the right buyer and in doing business.

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:

HS code	Description
1207 4090	Sesame seeds, excl. for sowing

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: colour, odour, flavour, oil content, moisture content, 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.

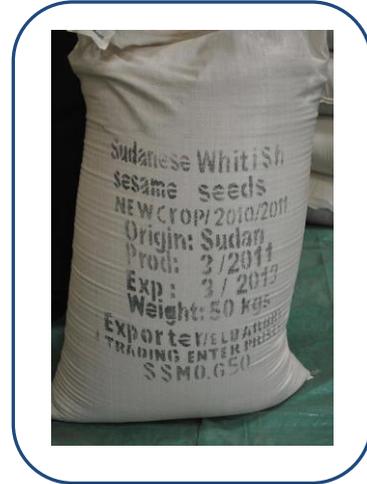
- Ensure proper storage and transportation (see 'Packaging').

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
 - Net weight/volume in metric units
 - Recommended storage conditions



Source: Tradeholding

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.



Source: KETEPA

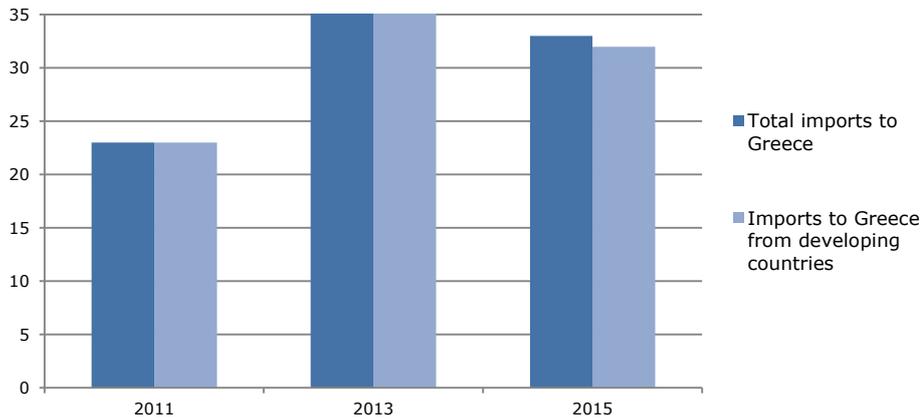


Trade and Macro-economic statistics

Source: Siniparxi

Imports

Figure 1: Total imports of sesame seeds in Greece, in 1000 tonnes



Source: Eurostat, 2016

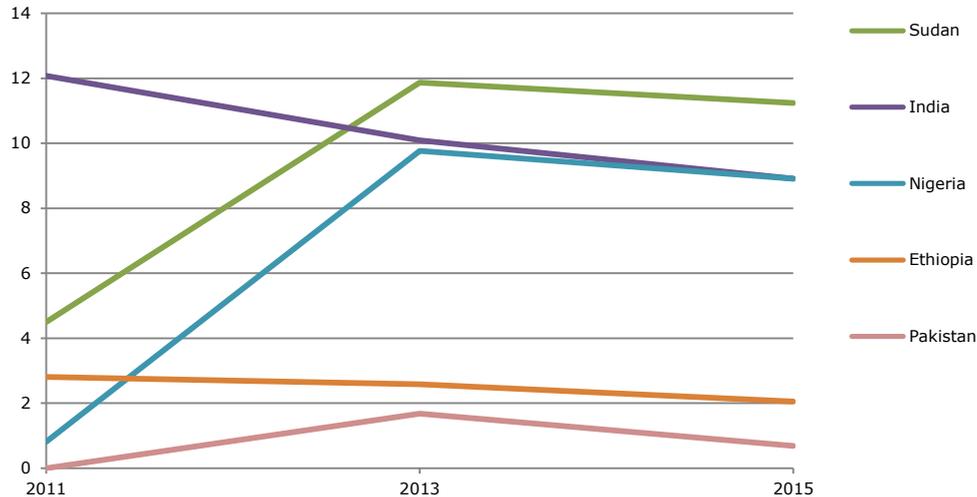
- In 2015, the total amount of sesame seeds imported into Europe amounted to 161 thousand tonnes (€288 million).
- Greece is the second largest import sesame seed market in Europe (20% share in volume), accounting for 33 thousand tonnes at €49 million in 2015. This is due to the popularity of sesame seeds as an ingredient in traditional Greek cuisine. The oilseed is used in particular as an ingredient for spreads such as tahini and halva, as well as in bakery and confectionery products.
- Almost all of Greek imports of sesame seeds (98%) originate directly from developing countries. The remaining share comes from transit countries in Europe. Sesame seed also enters the market in the form of processed products, which are not accounted for by these statistics.
- Between 2011 and 2015, Greece had an average annual increase in volume of 9.1% and 19% in value. This indicates that imports of sesame seeds still showed an upward trend despite the economic crisis.

Tips: The economic crisis in Greece has been going on for several years and is still influencing the country's economy in 2016. This means that you have to carefully select your buyer(s) – normal business practices and financial checks need to be done more often due to the volatile nature of the economy.

An interesting source to learn about the Greek food market and its trade dynamics is the website of the [Association of Greek Food Industries \(SEVT\)](#). More specifically for sesame seeds, consult websites of Greek companies such as [Papayiannis bros](#) and [Hali Foods](#).

Accompany developments in the Greek trade for sesame seeds and identify developments such as the emergence of new suppliers and decline of established ones.

Figure 2: Exports of sesame seeds to Greece; primary countries (in terms of 2015 volume) exporting sesame seeds to Greece, 2011–2015 in 1000 tonnes



Source: Eurostat, 2016

- The largest developing country suppliers of sesame seeds to Greece are Sudan (34%), India (27%), Nigeria (23%) and Ethiopia (6%).
- In 2015, Indian supplies of sesame seeds to Greece amounted to around 8.9 thousand tonnes (€14 million). These exports mainly consist of hulled sesame seeds, which explains the high value. Indian imports have marked an annual 7.3% decrease in volume and 1.7% increase in value since 2011. India experienced a weak sesame harvest due to heavy rainfall in different sesame-producing areas of the country, which affected its supplies in 2011, 2012 and 2013 ([Business Standard, 2013](#)). In addition, due to lack of water for irrigation in 2015, Indian sesame production declined even further ([Business Standard, 2015](#)).
- Nonetheless, export of sesame seeds from India is declining in the long run, due to the increasing pressure on land and rising consumption. A general shift in sesame production from India (and China) to Africa is being witnessed in the international market. This will open further opportunities for African sesame seed suppliers in Europe.
- Sudan took over the position as largest supplier of sesame seeds to Greece. Between 2011 and 2015, Sudan had an annual average increase in exports of 25% in volume and 36% in value, reaching a total of 11 thousand tonnes of Greek imports in 2015 (34% share of volume).
- Another major supplier of sesame seeds to Greece is Nigeria, whose supplies in the period 2011–2015 increased from 811 tonnes to 7.6 thousand tonnes, which signified an annual increase of 75% in volume and 88% in value.
- Ethiopia's supplies experienced a decline between 2010 and 2014 due to contract default (i.e. contract fidelity was not respected), with an annual average decrease of 10% in volume and 1.4% in value. Nonetheless, Ethiopia's exports have shown small signs of recovery in 2014 and 2015, as the confidence which was lost due to contract fidelity issues began to return; in 2015 Ethiopia supplied Greece with 2.1 thousand tonnes in volume.

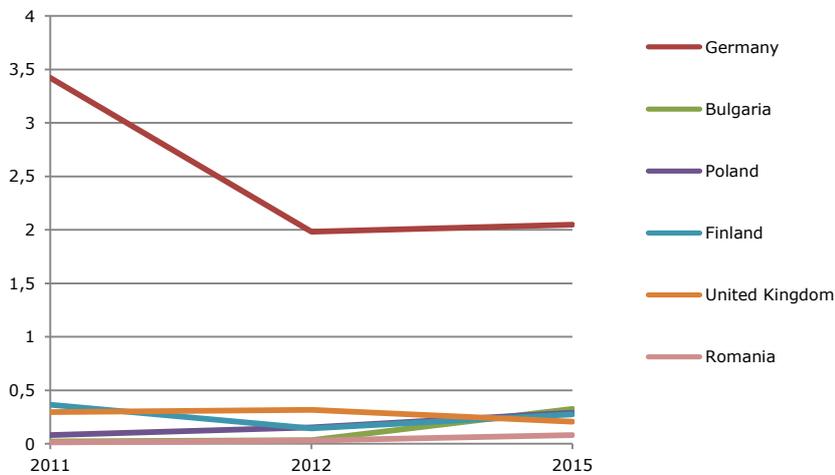
Tips: A good source for analysing Greek trade dynamics yourself is the [Eurostat Statistics Database](#).

Identify your potential competitors and learn from them in terms of:

- Marketing: website, social media, trade fair participation, etc. A well- structured websites is for example: [Sindan Organic](#) (Bolivia).
- Product characteristics: origin, quality, oil content, etc.
- Value addition: certifications, processing techniques.

Exports

Figure 3: Exports of sesame seeds from Greece; the largest countries importing sesame seeds from Greece (in terms of 2015 volume), 2011–2015 in 1000 tonnes



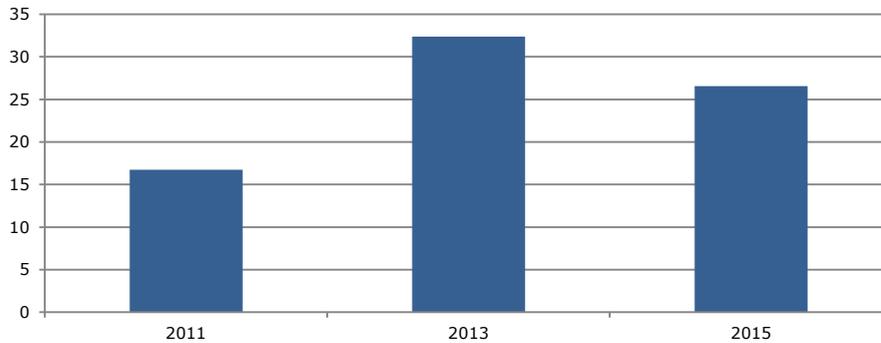
Source: Eurostat, 2016

- Greece is the third largest exporter of sesame seeds in Europe, while (as explained below) it also has the largest consumer market for sesame seeds in Europe. In 2015, it exported and re-exported around 4.1 thousand tonnes of sesame seeds at €8.1 million, with exports decreasing in volume (by 10% annually), and decreasing in value at an annual rate of 1.4% since 2011.
- In 2015, Germany was the main destination for Greek sesame seed exports. Germany received around 2.0 thousand tonnes of sesame seeds, representing a share of 50% of total Greek sesame seed exports. However, a significant annual decline of sesame seed exports to Germany has been recorded between 2011 and 2015 (by 12% in volume and 4% in value). This might indicate that Germany is importing sesame seeds directly from producing countries, rather than using Greek companies as intermediaries.
- Other important destinations of Greek sesame seed exports are Cyprus (9.3% share in volume), Bulgaria (7.9%), Poland (7.1%), Finland (6.7%), the United Kingdom (5.0%) and the United States (3.9%).

Tips: The website of [FoodDrinkEurope](#) could be an interesting source to understand consumption patterns of food products, including sesame seeds, across different European countries.

Consumption

Figure 4: Apparent consumption¹ of sesame seeds in Greece, in 1000 tonnes



Sources: FAOSTAT, 2016; Eurostat, 2016

* The latest FAOSTAT production statistics (2014) are included into the calculation for apparent consumption for 2015.

- Greece is the largest market for sesame seeds in Europe, accounting for nearly one fourth of the total market. Sesame seeds are commonly used as ingredients for food products in traditional Greek cuisine. Germany is also a major market in Europe, accounting for nearly another fourth of the total market.
- Apparent consumption in Greece has recorded an average annual growth rate of 14% since 2011, amounting to 27 thousand tonnes in 2015. Apparent consumption does not take into account sesame products which are imported into Greece from other European Union countries, thus real sesame consumption is higher than the reported commodity figures.
- Although Greece produces sesame seeds in small volumes, the country is almost entirely dependent on imports. Almost all of these imports (98%) originate directly in developing countries.

Tips:

See our study on [Trade Statistics for Oilseeds](#) for more information.

Market trends

Popularity of sesame in Greece and the economic crisis

- The consumption of sesame seed can be traced back to Ancient Greece, where it was used for its therapeutic effects, stimulating energy and athletic performance.
- Nowadays, sesame seed is mostly used as an ingredient for the production of traditional Greek food products, such as tahini (a paste of ground sesame seeds), pasteli (a pastry based on honey and sesame seeds), and halva (consists for 60% out of tahini), often used in Greek cooked dishes, spreads such as hummus and salad toppings.
- In Greece, the food and beverage industry has the highest percentage of enterprises (60%) among all manufacturing sectors; furthermore, it employs around a quarter of total employees engaged in manufacturing ([SEVT](#)). Considering enterprises with more than 10 people in the food and beverage industry, a share of over 30% is engaged in bakery products ([Eurofound](#)) – one of the most important sectors for sesame seeds.
- In spite of its importance to the Greek economy the country's food industry has seen a decline in the last years, following the severe economic crisis which has hit

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

the country for several years ([Greece in figures, 2016](#)), thus affecting demand for various food ingredients.

- The effects of the crisis have been further exacerbated by cash-flow problems which are spread throughout the economy, also affecting food companies. At the retail level, the economy is estimated to have shrunk by nearly a quarter in 2015, due to government measures that restricted the purchasing power of consumers. ([Business Insider, 2015](#)). With the increase in counterparty risk, doing business in Greece at the moment requires caution.

Tips: 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.

Ask your buyer for guaranteed methods of payment such as letters of credit.

Regarding the production of tahini and confectionery products, Greek processors principally demand hulled sesame seeds. However, natural sesame seeds are also demanded in substantial volumes. In this respect, it is important that you pay special attention to the varieties and respective volumes you are able to deliver to the Greek market and which meet specific demand.

Browse through websites of Greek companies which process and trade sesame seeds and sesame seed products, examples are: [Papayiannis bros](#) and [Hali Foods](#). Pay special attention to their product portfolio and the various applications of sesame seeds which could be relevant to the product you are able to supply. Do not forget to check the quality management systems these companies comply with, which can help you anticipate what they require from their suppliers in terms of quality standards and traceability.

Keep an eye on the impact of the Greek economic crisis on the food sector. Newsletters such as [Food Navigator](#), [Food Ingredients First](#) or the website of [SEVT](#) (Greek Food and Drink Industry) are interesting points of departure.

Salmonella risk in sesame seeds

- A multistate outbreak of Salmonella in the USA 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.
- In Greece, the homeland of tahini, safety concerns were expressed after salmonella contamination was detected on several occasions in the last years. In 2014, for instance, Greek customs officers found a container load of sesame seeds contaminated with Salmonella originating from India, rejecting it for import. In 2014, India was the second largest supplier of sesame seeds to Greece, behind Sudan. With high embedded use of sesame seeds in Greek traditional food products, salmonella represents an important risk for Greek importers, which means that suppliers of sesame to the Greek market can expect (increasingly) regular and strict controls.

Tips: 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.

Sample and analyse pre-shipment in an European Union-accredited laboratory.

Be familiar with [FEDIOL's Hygiene Guides](#), including set procedures dealing with Salmonella and other sources of contamination.

Sesame seed allergy in Greece

- Sesame seed allergy is the most common type of seed allergy in Europe. Sesame seed is becoming increasingly reported as the trigger for IgE-mediated allergic reactions in all populations. Allergy to sesame seeds has been increasing in incidence in the Western world over the past five decades.
- Sesame seeds is included on European Union's list with most common food allergies (EC directive 89/2003). However, prevalence of allergies in children is recorded to be 1.7% in Greece, compared to the higher 4-5% in Italy, Spain, France, UK, Netherlands and Germany.

Tips: Read more about food allergens in the European Union on the website of [Food Allergy Information](#).

Emphasise the healthy and nutritional properties of your product in order to avoid a negative/allergy association with sesame seeds.

A latent ethical market

- At present, the market for fair trade and organic products remains small in Greece, which can indicate that these premium products are not the most interesting choice for developing country exporters. According to the latest figures reported (2010, in the 2016 version of FiBL and IFOAM [The World of Organic Agriculture – Statistics and Emerging Trends](#)), the organic market in Greece amounted to € 60 million, with a low per capita consumption of € 5.00/year.
- However, as organic-certified sesame seeds are already used by Greek companies such as [Haitoglou Bros](#), it is a market which could provide specific opportunities.

Tips: 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](#) in the European Union. The page of [IFOAM – Greece](#) page provides more specific information on the organic market in Greece.

See our study on [Trends for Oilseeds](#) for more information.

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. Specifically for sesame seeds, contamination of salmonella can be an issue. See the Market trends section, for more information on salmonella.

Tips: Check out the maximum levels for [contaminants in food set by EU legislation](#).

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.

Tips: 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](#).

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.

Tips: Familiarise yourself with the concerns of the end-users of your products by checking European Union legislation on [additives, enzymes and flavourings in food](#).

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.

Tips: Ensure compliance with European Union legislation on [Hygiene of foodstuffs \(HACCP\)](#).

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.

Tips: Suppliers can apply a basic HACCP system. However, if you aim to supply food manufacturers a product ready for direct entry, it is necessary to have a recognised certified food-safety management system such as ISO 22000, British Retail Consortium (BRC) or International Featured Standards (IFS) Food. Visit the website of the [Global Food Safety Initiative](#) 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](#).

Make sure that your organic certification is harmonised with the [European legislation](#).

FairTrade: 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.

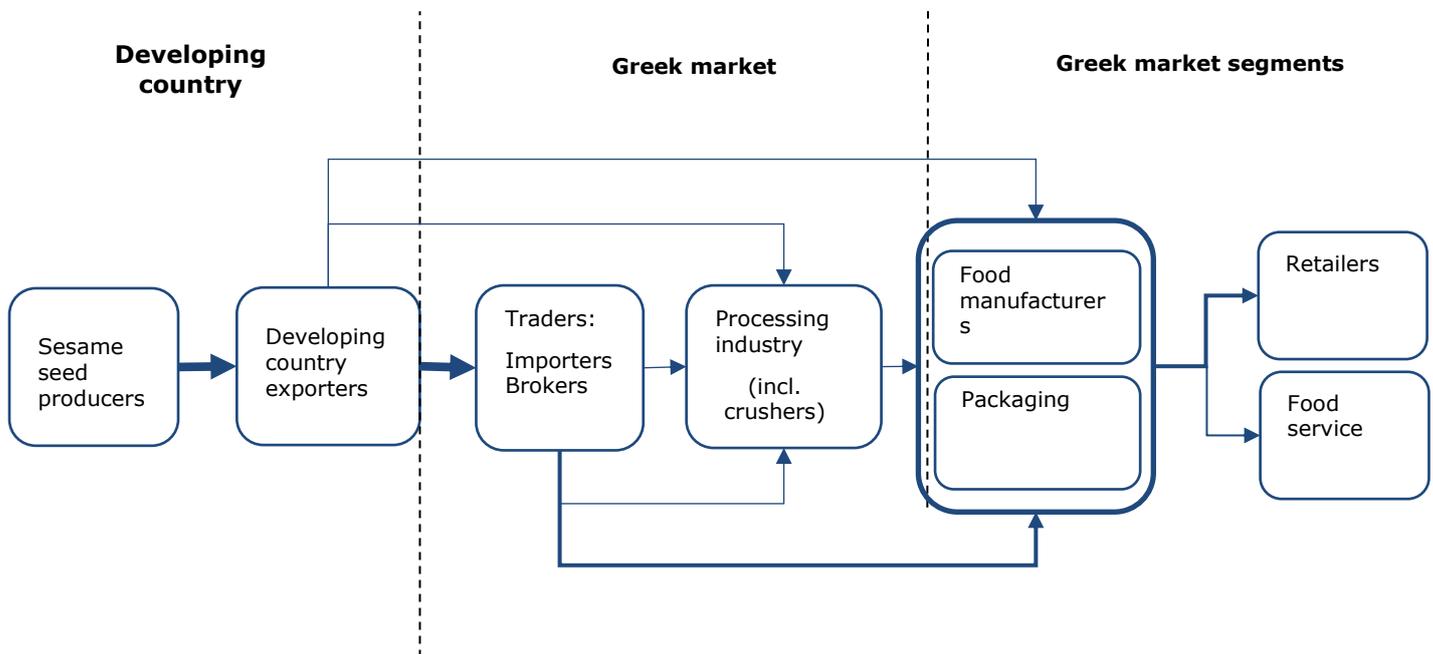
Although [FLO](#) certification is the leading fair trade certification scheme in Europe, you can also check out other schemes such as IMO's '[Fair for Life](#)' and [EcoCert Fair Trade](#).

See our study on [buyer requirements for the oilseeds market](#) for more information.

Market channels and segments

Trade channels for sesame seeds in Greece do not differ significantly from the general structure as described in [CBI Market Channels and Segments for Oilseeds](#).

Figure 5: Trade channels for sesame seeds in Greece

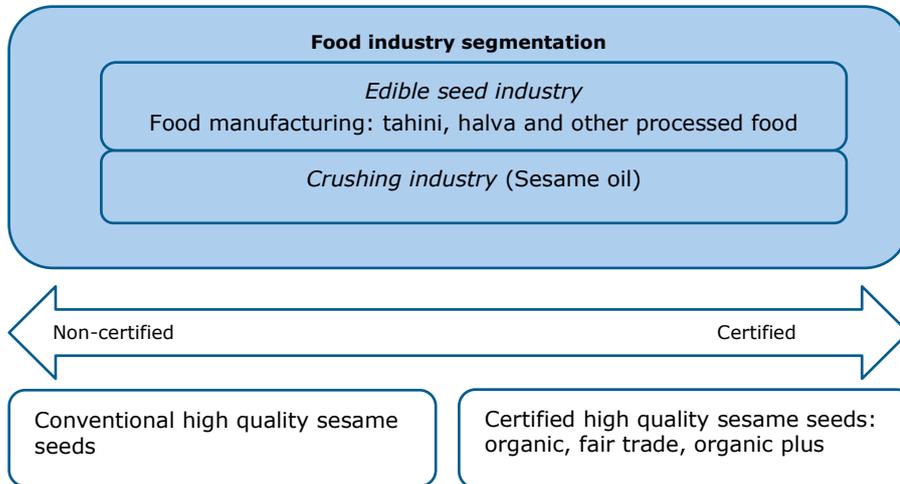


The Greek food market for sesame seed trade can be divided into two main segments, based on the end use of the seed:

- 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 Greece are not significant.
- The **edible seed industry** can be divided into two:
 - *Food manufacturing*: sesame seeds are an important ingredient for processing traditional products such as tahini, halva (confection made from sesame paste and a sweetening agent), which are also destined for export.
 - *Confectionery*: sesame seeds are also used on the surface of tsoureki, breads and other bakery products to enrich their flavour and aroma.

In a global context, the Greek market is regarded as speciality, whereas the markets of Asia can be described as commodity. 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 high quality seeds and certified high quality seeds.

Figure 6: Segmentation of sesame seeds in Greece



Tips:

Analyse your market entry options and consider which channel is most suitable for your own specific strengths, needs and objectives.

If you are able to supply directly to food processors or crushers in terms of volume, as well as ensure consistent delivery and quality, make sure you have adequate quality control systems. The different systems available are described under 'Common requirements'. Make sure to consult your (potential) buyers on the certifications they require.

If you are dealing with smaller volumes or specialised seeds, importers are quite certainly the most suitable entry point.

If you are a new exporter or new to exporting, brokers can facilitate your market entry process in Greece, enabling you to find and connect you to the most suitable buyer.

Meet specific quality requirements when targeting the import market: uniformity in colour and shape (whole seeds) and a high purity level are key.

Comply with sustainability standards required by your specific segment and stay up-to-date on developments in this respect.

See our study on [market channels and segments for oilseeds](#) for more information.

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 strongly depends 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 prices between USD 2,000 and USD 2,500 per tonne, depending on the origin and quality.

- Nonetheless, prices crashed in 2014 and 2015, with prices ranging between USD 1,200 and USD 1,500 because of poor Chinese demand and high production levels worldwide. In early 2016, prices decreased even more to USD 800–900 per tonne mainly due to weak demand worldwide yet now appear to be recovering due to lower production.

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
- The Food and Agriculture Organisation of the United Nations has a variety of agricultural databases – <http://faostat3.fao.org/home/E>
- For information on the latest market developments in the Oils and seeds sector, visit The Public Ledger – <http://publicledger.agra-net.com/oils/>
- B2B marketplace – <http://europe.go4worldbusiness.com/seeds>
- Association of Greek Food Industries (SEVT) - www.sevt.gr

More information

CBI market information: Promising EU export markets.

EU Expanding Exports Helpdesk - <http://exporthelp.europa.eu> - go to 'trade statistics'.

Eurostat - <http://epp.eurostat.ec.europa.eu/newxtweb> - statistical database of the EU.

Several queries are possible. For trade, choose 'EU27 Trade Since 1995 By CN8'.

International Trade Statistics - <http://www.trademap.org> - you have to register

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

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