

CBI Product Factsheet: Cloves in Germany

'Practical market insights for your product'

The market for cloves in Germany is increasing despite the increase in price. The understanding of the versatility of cloves is reaching the mainstream market and certified cloves are becoming more popular due to Germany's focus on organic and fair trade products.

Product Definition

Cloves are the immature unopened flower buds of the evergreen tree *Eugenia caryophyllus*, which belongs to the Myrtaceae family. The tree is native to the Molucca Islands of Indonesia. Today, cloves are grown in other tropical countries as well e.g. Zanzibar and Madagascar.

Cloves are green or pink when they are picked, and need to be dried until they become brown before they can be stored and sold. They resemble tiny nails of about 1.5cm long and have a diameter of about 0.5cm,

Cloves are used in cuisines all over the world as well as in the food, pharmaceutical, tobacco and cosmetics industries. Other products made of cloves include clove oil, the main constituent of which is Eugenol. Clove oil contains up to 85% Eugenol (sambirano-aromatic.com). Eugenol is also used to perfume soaps, as a dental anaesthetic, and as an additive in dental filling material.

In Germany, cloves are mostly used for cooking, in both ground and un-ground form. The main focus of this study is on the clove bud, since the stems and clove fruit are not widely consumed in Germany, or elsewhere in the EU.

The statistics used in this document are based on Combined Nomenclature (CN) codes. The CN classification uses Harmonised System (HS) codes to classify products including cloves. In 2012, two product codes for cloves were introduced in order to make it possible to distinguish between whole and crushed/ground cloves.



Unopened clove buds on a tree
Source: sambirano-aromatic.com

HS Code	Description
09070000 – Code used until 2012	Cloves, whole fruit, cloves and stems
09071000 – Code used from 2012 onwards	Cloves, whole fruit, cloves and stems (neither crushed nor ground)
09072000 – Code used from 2012 onwards	Cloves, whole fruit, cloves and stems (crushed or ground)



Cloves
Source: Plantrich.com



Ground cloves
Source: savoryspiceshop.com

Product specification

Quality

- Whole cloves keep hold of their quality substantially longer than ground cloves, as they will retain more nutrients and have a stronger flavour.

At the consumer level, you can tell whether cloves are of a high quality by pressing a fingernail in the stalk, if it secretes a small amount of oil, the clove is of good quality. The water test is also used to check whether whole cloves are fresh; if they float vertically or sink, they are considered good quality; lower grade cloves float horizontally.

Quality cloves are oily whole buds, the colour of quality cloves should be a reddish-brown (obtained after some processing), with the head being closed and of a light-brown colour.

- Product quality and food safety are key issues for buyers in Germany. The [European Spice Association](#) (ESA) has published the [Quality Minima Document](#). This document is guiding for the national spice associations affiliated with the ESA, including Germany. The Quality Minima Document specifies the legal EU requirements for whole cloves (thus excluding crushed/ground cloves and those treated for microbial reduction) as well as additional buyer requirements not laid down in legislation. It includes the chemical and physical parameters that unprocessed cloves need to comply with when sold in the EU:
 - Ash: maximum 7%
 - Acid Insoluble Ash: maximum 0.5%
 - Moisture: maximum 12%
 - Volatile oil: minimum 14ml/100g

Considerations for action

- Grading is done in the country of production, but to provide a better view on the matter, cloves can also be assessed based on [ISO standard 2254-2004](#), which provides general guidelines on grading, handling and packaging of cloves. Keep in mind that some German buyers might have higher quality standards (see section 'Non-legislative requirements'). Ask your buyers for their specific quality requirement, since addressing quality issues is a great way to add value and it is necessary to comply with the preferences of your buyers to close deals.

Labelling

German buyers are strict when it comes to packaging of cloves. Legal requirements for consumer labelling are laid down in EU Regulations (see section 'Legal requirements'). For bulk products, only the following items are required:

- the name of the product
- details of the manufacturer (name and address)
- batch number
- date of manufacture
- grade of the product
- producing country
- harvest date (month-year)
- net weight
- any information exporting and importing countries may require: bar, producer and/or packer code
- any extra information that can be used to trace the product back to its origin.

Packaging

Cloves are transported by ship, truck or railroad. Ventilated containers are used, subject to compliance with lower limits for water content. In damp weather (rain or snow), the load must be protected from moisture, since this may lead to mould, spoilage and self-heating. Favourable temperature during shipment is between 5-25°C. Once damp, cloves become worthless, as there is no way of reconditioning them. They become sticky, soft and gray and

can no longer be ground; it is essential to avoid relative humidity exceeding > 75%. For more information, please refer to the German [Transport Information Service](#).

Whole cloves are packaged in jute fabric bags (50 - 65 kg), bales, boxes and bast mats (75 kg) called gunny bags. If packaged right, cloves can be kept for approximately 24 months.

Cloves are generally imported whole, grinding being done in consuming countries, since the flavour of cloves quickly deteriorates when they are ground. Whole cloves must be packed in new, clean, sound and dry bags made of jute, cloth laminated with polyethylene or polypropylene, or high-density polyethylene bags/pouches. It is essential to rid the cloves of moist as much as possible before they are stored, since damp cloves are rather vulnerable for contamination with mycotoxins or aflatoxins.

If cloves are ground, the powder can be packed in new, clean, sound and dry containers made of glass, tin or aluminium, or in pouches made of laminated, metallised, multilayered food grade plastic material. The containers should be free from insect infestation, fungus contamination, bad smells or any substances that may damage the contents.



Legislative requirements

Your product needs to comply with German legislation the moment it enters Germany. While Germany follows EU legislation regarding cloves, please bear in mind that some buyers can have additional requirements in addition to this. Only consider exporting to Germany when your company is able to comply with the following requirements:

- **General legislation:** all products entering Germany (or the EU) need to comply with general requirements concerning food and packaging laws.
- **Importance of food safety and hygiene:** Germany demands compliance with strict requirements concerning food safety. Issues related to food safety are:
 - Microbiological, physical and chemical contamination.
 - Maximum levels of toxic substance residues
 - Shelf stabilityFor cloves, a particular risk can be found in contamination with aflatoxins. Aflatoxins are considered to be highly carcinogenic. The maximum accepted levels of aflatoxins can be found in [Regulation \(EC\) No. 1881/2006](#) (see Annex 2.1.9.). Compliance with the requirements of the Hazard Analysis and Critical Control Points (HACCP) is of absolute importance to be granted access to the German market, as German buyers of spices and herbs follow HACCP requirements strictly.
- **Approved food additives:** the EU, and thus Germany, has strict

Considerations for action

- See the following documentation for more information on more general requirements concerning (food)products entering Germany (and the EU) :
 - General: [Liability for defective products](#)
 - Food: [Regulation \(EC\) 178/2002](#), [Food control](#) and [Food contact materials](#)
- To find out more about the requirements, please refer to the following CBI documents: [Contaminants in food](#), [Maximum Residue Levels \(MRLs\) of pesticides in food](#) and the [Microbiological contamination of food](#).
- The presence of Aflatoxin in cloves is often the result of sun drying and poor storage during the production process. Better drying and storage practices or facilities may help to increase the quality of cloves. Make an assessment whether better practices are possible during the production process. To find out more about the requirements consult the guidelines on [Good Agricultural Practices for spices](#) (IOSTA) and [Good Manufacturing Practices for spices](#) (IPC).
- Being able to provide test reports on microbiological contamination to potential buyers may make it easier to establish new business relations.
- See the CBI document [Hygiene of food \(HACCP\)](#) for more information on this issue.
- Be sure you are up to date on allowed and prohibited additives and the

regulations on which food additives are allowed in food products. These regulations are often much stricter than regulation concerning this issue in countries of origin. Spices containing high levels of extraneous materials will be rejected by custom authorities or buyers. This is actually one of the main reasons for the EU to reject herbs and spices.

- **Irradiation of food:** irradiation of spices and aromatic herbs is legally allowed for food entering Germany. It is a safe method to kill organisms and this method affects the taste of spices and herbs less than steam sterilisation. However, consumers generally prefer non-irradiated products. Therefore, this method is not widely used.
- **Consumer labelling:** pre-packed spices and herbs will have to adhere to strict EU labelling requirements. In addition to the general requirements, these also concern nutrition and allergens.
 - If nutrition or health claims are made, they must be approved in advance by the [European Food Safety Agency](#) (EFSA).
- **Clove as a food supplement:** cloves are not only used to add flavour to a variety of dishes, they are also used as a dietary supplement due to their high content of antioxidants. Cloves are used for the production of oleoresin for food and pharmaceutical products. These constitute interesting markets, but specific requirements apply which are not fully harmonised within the European Union.
- **Animal feed:** to improve animal health and digestion, cloves are increasingly used in animal feed. This market is still relatively new, but it can provide interesting opportunities.

maximum levels for these additives. Consult the CBI document [European buyer requirements: natural colours, flavours and thickeners](#) and EU legislation: [Additives, enzymes and flavourings in food](#) for more information on this issue.

- In order to avoid surprises, even if an additive is approved by legislation, only add those substances you have agreed upon with your buyer. This is important, since some German buyers apply stricter rules than legislation prescribes.
- For more information on irradiation, see the CBI document [Irradiation of food](#).
- Make sure to inform your buyer if you irradiate your cloves, since irradiated products need to be labelled as such on the German market.
- For more information, please refer to the CBI document on [Food labelling](#) and [Nutrition and health claims on food](#).
- If you decide to supply high-quality cloves, make sure the packaging of your cloves displays the quality and professionalism you have to offer.
- Refer to the CBI's document on [Food supplements](#) or [Vegetable oils and fats](#) for more information on the specific requirements in this market.
- Be aware that legal requirements for animal feed differ from those for the food industry. Refer to the [animal nutrition](#) section on the EU website for more information about the legal requirements for this market.

Non-legislative requirements

- **Sustainability:** The implementation of sustainability in the cloves chain is also becoming increasingly important. A few years ago, organic certified cloves were introduced in the EU market. At the moment, organic and [Fairtrade](#) certified cloves are available in the EU market. Organic products focus on land use and inputs, whereas fair trade focuses specifically on improving the living conditions of farmers in DCs.

Sustainability-related certification is an important tool to show your approach towards sustainability. It should not only

Considerations for action

- See the CBI documentation [Sustainability in Spices and Herbs](#) and [Organic production and labelling](#).
- Depending on your buyers (CSR strategy), and your own focus (e.g. social and/or environmental issues), there are different standards and labels available. Ensure the certification you chose complies with all requirements set by your (potential) buyers.
- For more information on available fair trade, organic and other certification standards for various products, please refer to the [Standards Map of ITC](#). Clove is listed separately under 'Herbs and

be considered in relation to the final consumer, but throughout the entire supply chain. This needs to be done in close contact with the relevant trader/producer or retailer.

- **Quality management and traceability:** As a result of the growing concern on food safety in Germany, quality management systems play an important role in the spice & herb market. There are many different systems, each with their own scope and relevance. [IFS](#), [BRC](#) and [ISO 22000](#) are the most widely used quality management systems used in the German food industry, all of which are based on minimum HACCP-principles.
- **Product quality:** Although process quality management systems are crucial for market access, it is also important to adhere to product quality standards.

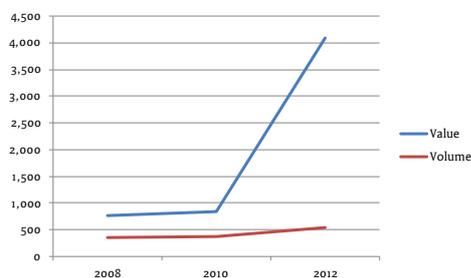
spices'. The website also gives an overview of the standards applicable to clove and a quick-scan of the requirements of these different standards.

- Please refer to the CBI document [Food Safety Management Systems](#) or [Traceability of food](#) to find out more about the different systems.
- At least adhere to the minimum quality requirements of the [ESA](#), and the [ISO standard 2254-2004](#) the latter of which concerns specifically whole and ground cloves.

Trade and Macro-Economic Statistics

Consumption

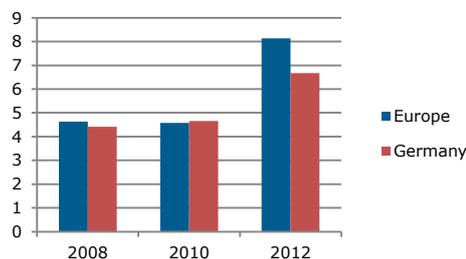
Figure 1: Total German consumption* of cloves, value in € thousand and volume in tonne



* Apparent consumption calculated as imports-exports

Source: Eurostat, 2013

Figure 2: German cloves consumption* compared to the European average, gram per capita



* Apparent consumption calculated as imports-exports

Source: Eurostat, 2013

Increasing prices for cloves in Germany

- As of 2010, German consumption of cloves in terms of value has increased much stronger than consumption in terms of volume: almost 20% annually compared to 120% annually. This indicates that consumption prices have increased tremendously. To illustrate: the price per unit imported increased by 162% between 2010 and 2012, an increase of almost 62% per year.
- This price increase is the result of a lower global supply of cloves in combination with a higher global demand. As an illustration, Madagascar's production of cloves fell with an average rate of 9.1% annually between 2007 and 2011 and a more moderate decline can be seen in Indonesia where production decreased by 1.5% during the same period. One explanation for this decline is the shift away from cloves towards

Considerations for action

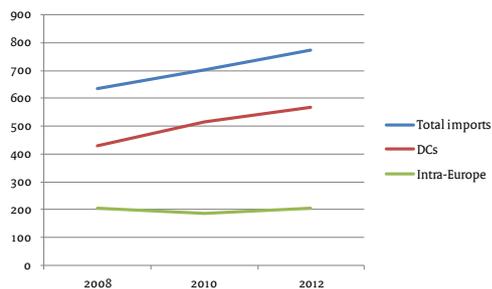
- Monitor developments in German per capita consumption to determine whether this consumption increase per capita is the beginning of a new trend or a onetime event. If it is a trend the German market offers opportunities for new suppliers.

the production of more profitable crops (FAOSTAT, 2013).

- Compared to European per capita consumption (EU + EFTA), German consumption per capita shows the same trends. Only in 2012, per capita consumption of cloves rose slightly less than European per capita consumption.

Imports & exports

Figure 3 German imports of cloves, volume in tonnes

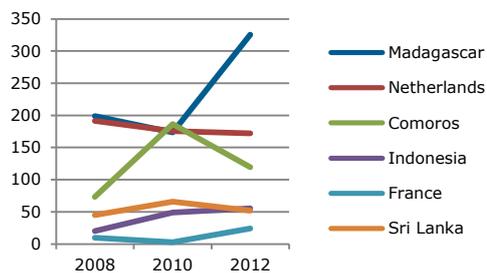


Source: Eurostat, 2013

Limited number of suppliers

- Germany is the second largest European importer of cloves and accounts for 19% of total European imports. Only the Netherlands imports a larger share, accounting for 34% of total European imports. In terms of net-imports (imports minus exports), Germany is the largest, since the Netherlands re-exports a large share of the imported cloves. On the other hand, Germany is a large re-exporter itself: in 2012, the exported volume accounted for about 30% of the the imported value, which is relatively high.
- Germany's second largest supplier of cloves is the Netherlands (re-exports). These cloves are imported by Germany at similar average prices (approximately € 8.50 / kg) as cloves imported directly from the main clove-producing countries.
- Germany does not produce cloves itself, making the market completely dependent on imports. Germany has only 12 supplying countries worldwide, three of which account for almost 80% of Germany's total imports (Madagascar, the Netherlands and Comoros).
- The import of cloves is growing steadily in Germany, mainly driven by the direct supply from Madagascar, Comoros, and, to a lesser extent Indonesia and Sri Lanka (see figures 3 and 4).

Figure 4 Leading suppliers of cloves to Germany, volume in tonnes

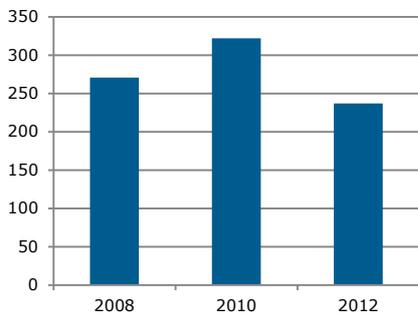


Source: Eurostat, 2013

Considerations for action

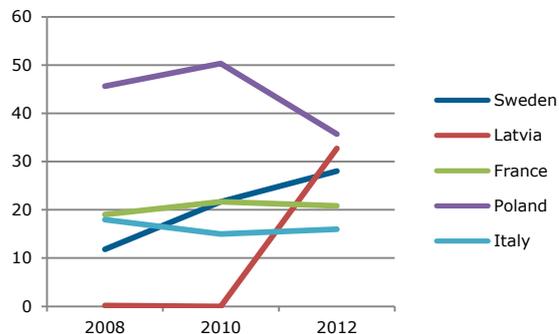
- Explore opportunities to supply the German market directly. You are able to do this if you can supply cloves of a similar quality as the cloves re-exported by the Netherlands. You can even gain a competitive advantage over EU suppliers if you are able to deliver this same quality at a lower price.

Figure 5 German exports of cloves, volume in tonnes



Source: Eurostat, 2013

Figure 6 Top 5 export destinations of German cloves, volume in tonnes



Source: Eurostat, 2013

Intra-European re-exporters add value

- In 2012, 90% of total clove exports from Germany was destined for the European market. The top 5 export destinations were Poland, Latvia, Sweden, France and Italy. These countries together imported 52% of all clove exports from Germany.
- Data on German trade in cloves show that in 2012 Germany exported around 30% of the imported volume and almost 40% of the imported value. This indicates German exporters add value, such as packaging, to the cloves between the moment of import and the moment of export.

Considerations for action

Market Trends

- **Healthy and medicinal function of cloves used as a marketing tool:** The growing public concern about health in Germany has a positive effect on the market for spices and herbs as a whole. Spices and herbs can be used as a replacement for unhealthy ingredients like salt, sugar and synthetic additives. Several large food processors in the EU produce a range of products containing less salt, increasing the necessity to look for alternative ingredients to maintain the flavour in their food products. An example of a German food processor involved in this practice is [Dr Oetker](#). This development creates opportunities for DC exporters, since it increases demand for spices, including cloves.

Germans have long used exotic spices in their cuisine mainly as a taste additive. Recently, a growing number of European companies importing or trading spices have partly shifted their attention from the taste aspect of cloves to their use as a health food. On top of its healthiness, cloves also have

Considerations for action

- Refer to [CBI's Trendmapping](#) for more information on trends in the herb & spice market.
- Find out more about the usefulness of cloves to find non-traditional uses for it.
- Inform your (potential) buyers about the versatility of cloves in order to increase the number of purposes they can use your product for.
- Working together with a large food processor joining in on this movement may help transferring the message to consumers that spices are suitable as a healthier substitute for salt and sugar.
- Teaming up with (inter)national spice organisations to communicate the health benefits of cloves over other spices to the end-consumers.
- Target spice brands which sell their products in health stores. The [Organic Database](#) is a good starting point for finding such specialist stores.

a medicinal effect.

An example of a German brand using the medicinal effect of cloves in its marketing is Ostmann. While they don't have a strategy focused heavily on the health benefits of cloves, they do mention it in detail on their [website](#).

- **Sustainability boost:** Germany is the largest absolute consumer in the EU of organic food & beverages, at € 6.6 billion ([FIBL-AMI IFOAM, 2013](#)). Sustainable sourcing has become increasingly important in Germany. Germans demand both organic and fair trade-certified products. Dual certification (i.e. fair trade and organic) is also becoming more common; Sri Lanka and India already supply dual certified cloves.
- An example of a project addressing sustainability is the Dutch Sustainable Spice Initiative (SSI). SSI is working together with the Rainforest Alliance to develop a standard for cloves and will set up projects in India, Indonesia, Vietnam, India and Madagascar to create a larger global supply of certified cloves. Certified cloves make up only a small part of the market which is considered a niche. While the current market for certified cloves is still small, it is expected that the long-term growth for certified cloves will remain positive in Germany, as German buyers generally expect sustainable products of a high quality.
- An example of a spice brand in Germany that incorporated organic cloves in its assortment is Wagner. This company has established a separate line of organic spices and herbs called '[Bio Wagner](#)' in order to serve the increased demand for sustainably sourced products.
- **Stricter control on EU legislation compliance:** Control on compliance with EU legislation regarding food safety requirements, which also applies to the German market, (e.g. pesticides, mycotoxins, and microbiological issues) is becoming stricter. Microbiological contamination is an important issue that affects suppliers of cloves.

The stricter control on legislation compliance is illustrated by an example of two batches of contaminated cloves destined for the European market (see the illustrations below). In 2005 a batch of contaminated clove powder did manage to reach the European market via the Netherlands, posing a threat to European consumers (image left). In 2009, however, a comparable contaminated batch of cloves was prohibited to enter the European market in time, preventing possible

- Dual certification is a good way to differentiate your cloves from your competitors and increase the price of your product. If you wish to supply dual certified cloves, make an assessment first to determine whether this is financially viable for your company, since the market for dual certified cloves is still very small.
- Target buyers at organic and health stores to join in on the sustainability movement in Germany. Most of these kind of stores greatly value certification; make sure you obtain a certification which is equivalent to German certification schemes in order to gain an advantage in negotiations with potential buyers.
- Consider the establishment of a separate product line for (dual) certified cloves. This way you can experiment with certification issues, without bearing too much risk.
- As a DC supplier of cloves, ensure your product is produced in such a way that it complies with all necessary requirements to enter the European market. This means you need to monitor EU legislation concerning cloves carefully and adjust your production method accordingly.
- Implement strict rules and adhere to these rules during the production process in order to create complete transparency in the value chain. This will facilitate fast localization of possible bottlenecks in the production process possibly creating contamination.

risks to consumers (image on the right).

Clove powder

Alert!

Description:

Ochratoxin A (160 µg/kg - ppb) in clove powder from Comoros via the Netherlands

Classification:

 **Alert**

The product have reached its market and is presenting a serious health risk to consumers. Products have or are in the process of being withdrawn from the market.

Clove powder

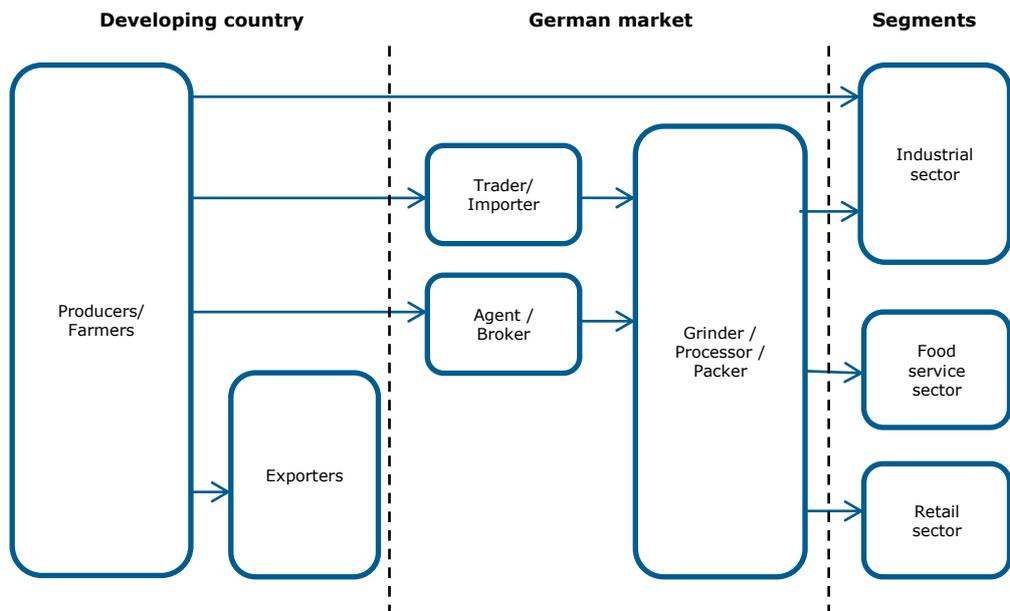
Description:
Aflatoxins (Tot. = 29 µg/kg - ppb) in clove powder from India

Classification:
Border rejection
The product was stopped at the border to European Union.

Please refer to CBI [Trendmapping](#) for Spices and herbs for more information on general European trends in spices.

Market channels and segments

Market channels



- Grinding mostly done in destination country:** Cloves are usually exported without further domestic processing. Grinding is done closer to the end consumer in order to retain the most amount of flavour to ground cloves. Most often only drying and storing of cloves is done in the producing country.

Spices can go through further (secondary) processing before reaching the EU market. These derivatives can be (essential) oils, oleoresins or extracts which are mainly exported directly to the European industrial sector. However, derivatives represent a very different market in terms of players and requirements, which are outside of the scope of this study. For further information on these product

Considerations for action:

- DC suppliers can add value to their product by incorporating grinding practices at their facility. Keep in mind that cloves lose flavour fast once they are ground, meaning that grinding cloves is only a viable option if you also have a quality packaging facility.
- DC suppliers enjoy more opportunities in secondary processing to create derivatives which can be used by the European industrial sector.
- Note that the German market still has some resistance toward ground spices due to fear of adulteration and/or the use of low quality spices. A whole, intact spice can be easily assessed for quality, which is more difficult for a ground spice

applications, refer to [CBI Market Intelligence on Natural Colours, Flavours and Thickeners](#).

- **General online shop:** There is an online shop called [So Schmeckt's](#) which sells cloves of five of Germany's top brands, namely [FUCHS](#), [Wagner Gewürze](#), [Bio Wagner](#), [Ostmann](#) and [UBENA](#). These brands do not sell their spices on their own website, making 'So Schmeckt's' a powerful platform.
- **Transparent supply chains:** Stricter legislation is increasing transparency in the supply chain. This transparency also helps suppliers in DCs to know the real time price of cloves.
- **Supply chains remain long:** While in general EU buyers of spices are moving closer to the source to secure and control supply, getting closer to the suppliers is hard in the clove market because there are many small farmers to deal with. Next to this, Germany is the largest European market for re-exported cloves; indicating this trend is not valid for German buyers of cloves.

([Intermediate Technology Development Group](#)).

- DC suppliers can increase their demand significantly by supplying these five popular brands, since these brands serve a large market. If you are able to supply large amounts of quality cloves, approach these brands and try to become their supplier.
- Ensure you stay up to date on prices. [Spices Board India](#) publishes weekly and monthly prices for cloves free of charge. There are also paid services available, such as [Public Ledger](#), who publishes monthly clove price analyses.
- In order to supply directly to retailers, not only do exporters need to supply consistent volumes in a short time (to avoid large stocks), but also need to meet very strict quality requirements for end products.

Market segments

- **Use in the kitchen:** In the kitchen, cloves are used to season a variety of dishes; both whole clove buds and ground cloves can be used. The major part of the world's consumption of cloves is in the kitchen. Domestic consumption of this spice makes up the largest part of the demand for cloves. However, commercial use of the clove for the production of clove oil also forms a large part of the world's production.
- **Industrial sector:** The industrial sector usually sources spices from importers or grinders/processors; only in some cases cloves are directly sourced from producing countries.
- **Home medication:** since clove oil contains Eugenol it is a common household way to relieve toothache. Health stores offer the greatest opportunity to sell cloves for this purpose.

Considerations for action:

- Supply your buyers with documentation on the versatility of cloves. This can be documentation including food recipes, home medicating methods or industrial uses for cloves. This way you can trigger your buyers to utilise cloves for uses they might not have been aware of beforehand.
- Education on the versatility of cloves can particularly be useful in the industrial sector, since this sector is always looking for new ideas and innovation.
- If you wish to supply the German industrial sector, you need to meet high industrial standards in terms of service level (e.g. consistent and timely delivery), quality (e.g. food safety) and volume.
- If you are a producer of clove oil, consider targeting the suppliers of health stores, since people looking for home treatment will look in these kind of stores. Again, the [Organic Database](#) provides names of specialist stores such as health stores.

Market competitiveness

- The developments described under trade and macroeconomic statistics suggest cloves have an **inelastic demand** and the demand and imports are relatively

Considerations for action:

recession resistant. This is true for many spices, as they are usually only a minor ingredient in a final food product and they contribute little to its total cost.

- The **strictness of the rules and legislation** concerning cloves in the EU, and thus Germany, make it rather hard for DC producers to enter this market. Several upcoming markets have less strict legislation concerning cloves, making them an easier market to target. The increased demand for cloves makes it a scarce product globally; driving up prices further, especially in markets with strict demands regarding production and packaging.
 - **Cloves have no substitute**: there is not a natural or synthetic substitute for cloves. As a natural substitute, the processing industry sometimes uses a mixture of allspice and star anise, but the effects of cloves cannot be imitated.
 - **Transparency** in the value chain has made speculation possible in the clove market, driving up prices extraordinarily and making it harder for producers to predict price changes in the future.
- Only consider supplying the German market if you are able to comply with all strict legislation concerning cloves. Make an assessment whether required adjustments to your production process are worth the effort.
 - Stay involved with business support organisations in your country and also with your buyers in order to spread the message about the versatility of cloves and its distinct features. This will stimulate the image of cloves as a unique spice (product).
 - Price developments and its effect on your competitive position can be anticipated to a certain extent. Consult crop reports online or visit events where these will be shared by sector exports. A crop report on cloves from the [Brazilian Pepper Trade Board](#) published in early 2013 is a great example. Also the monthly crop reports by [McCormick](#) offer lots of information.

Useful Sources

- European Spice Association: <http://www.esa-spices.org/>
- Association of the German Spice industry: <http://www.gewuerzindustrie.de/>
- Biofach (<http://www.biofach.de>) in Nürnberg, Germany (for organic producers)

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

Disclaimer CBI market information tools: <http://www.cbi.eu/disclaimer>