

Practical market insights for your product

Nutmeg in Germany

Consumption of nutmeg in Germany is relatively high and stable. Nutmegs are almost entirely imported whole and not further processed. An interesting development in the imports is the shift from importing nutmeg through the Netherlands, to importing directly from Indonesia.

NUTMEG



Source: www.botit.botany.wisc.edu



Source: www.seedguides.info

PRODUCT DEFINITION

The nutmeg tree (*Myristica fragrans* Houtt.) is endemic to Indonesia and other countries in the South Pacific. However, it is also grown commercially on several Caribbean-islands, in India, Sri Lanka and Malaysia. Other species include *Myristica argentea* (Papua), and *Myristica malabarica* in India, both used as adulterants in trade.

The nutmeg tree bears fruits which contain egg-shaped seeds wrapped in a red cover (aril), all year. The red cover is mace, which is another spice with a similar, but slightly more delicate flavour. Mace and its extract (oleoresin) are not a subject of this study.

This study covers the aforementioned egg-shaped seed (nutmeg), in whole, broken or ground form.

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 nutmeg.

HS Code	Description
09081100	Nutmeg, neither crushed or ground
09081200	Nutmeg, crushed or ground

PRODUCT SPECIFICATION

QUALITY Once nutmeg is ground and the oil cells are destroyed, it soon loses the oil which provides its flavour and taste. Hence, in trading whole nutmeg are commonly preferred over ground nutmeg.

In larger quantities (excessive use), nutmeg can induce hallucinations. However, because of the bitter taste and several unpleasant side effects, it is not popular as a drug.

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 nutmeg as well as additional buyer requirements not laid down in legislation. It includes the chemical and physical parameters that unprocessed nutmeg needs to comply with when sold in the EU (including Germany):

- Ash: maximum 3%
- Acid Insoluble Ash: maximum 0.5%
- Moisture: maximum 10%
- Volatile oil: minimum 5 – 6.5ml/100g (depending on grade)

CONSIDERATIONS FOR ACTION

Keep in mind that some Germany 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 your buyers' preferences to close deals.

For more information on grading, handling and packaging of nutmeg, please refer to [ISO standard 6577-2002](#), which provides general guidelines for whole and broken nutmegs.

LABELLING German buyers are strict when it comes to packaging of nutmeg. 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 Nutmeg is transported by ship, truck or railroad. Standard containers are used, subject to compliance with lower limits for water content of the good, packaging and container flooring. In damp weather (rain or snow), the cargo must be protected from moisture, since this may lead to mould and spoilage. This can result in a foul smell and crumbling of the nutmeg. Nutmeg requires particular temperature, humidity/moisture and possibly ventilation conditions. Favorable travel temperature range: 5 – 25°C. The maximum moisture content should not exceed 65%. Elevated moisture content and excessively high temperatures create a risk of self-heating. Even after reconditioning, nutmegs which have been subject to mold growth caused by moisture may be contaminated with aflatoxin from the mould *Aspergillus flavus*, which constitutes a health hazard.

When shipping the nutmeg, it is recommended to avoid exposing the containers to sun as much as possible. At temperatures of more than 50°C, essential oils will be lost (evaporation).

LEGISLATIVE REQUIREMENTS

Your product needs to comply with German legislation the moment it enters Germany. While Germany follows EU legislation regarding nutmeg, 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.

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](#)

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 stability.

For nutmeg, 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.

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 nutmeg often arises during drying, since the harvest period of nutmeg coincides with the monsoon season. Better drying and storage practices or facilities may help to increase the quality of nutmeg. 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.

APPROVED FOOD ADDITIVES The EU, and thus Germany, has strict 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.

CONSIDERATIONS FOR ACTION

Be sure you are up to date on allowed and prohibited additives and the 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 German buyers often apply stricter rules than legislation prescribes.

IRRADIATION OF FOOD Irradiation of spices and aromatic herbs is legally allowed for food entering Germany. It is a safe method to control 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.

For more information on irradiation, see the CBI document [Irradiation of food](#).

Make sure to inform your buyer if you irradiate your nutmegs, since irradiated products need to be labelled as such on the German market.

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).

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 nutmeg, make sure the packaging of your product displays the quality and professionalism you have to offer.

NUTMEG AS A FOOD SUPPLEMENT Nutmeg is not only used to add flavour to a variety of dishes, it is also used as a dietary supplement due to its high content of antioxidants. In addition, nutmeg is used for the production of oil resin for food and pharmaceutical products. These constitute interesting markets, but specific requirements apply in Germany which are not fully harmonised within the European Union

Refer to the CBI's document on [Food supplements](#) or [Vegetable oils and fats](#) for more information on the specific requirements in this market.

NON-LEGISLATIVE REQUIREMENTS

SUSTAINABILITY The implementation of sustainability in the nutmeg chain is also becoming increasingly important. A few years ago, organic certified nutmegs were introduced in the EU market. At the moment, organic and [Fairtrade](#) certified nutmegs 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 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.

India plans to become a major supplier of organic nutmeg and nutmeg extracts. In 2011, as a reaction to stricter control to compliance with regulations in e.g. the EU (see also the section on market trends), the [Indian Spices Board](#) decided to enhance the quality of nutmegs by promoting organic production as much as possible.

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](#). Nutmeg is listed separately under 'Herbs and spices'. The website also gives an overview of the standards applicable to nutmeg and a quick-scan of the requirements of these different standards.

QUALITY MANAGEMENT AND TRACEABILITY

As a result of the growing concern over 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.

Please refer to the CBI document [Food Safety Management Systems](#) or [Traceability of food](#) to find out more about the different systems.

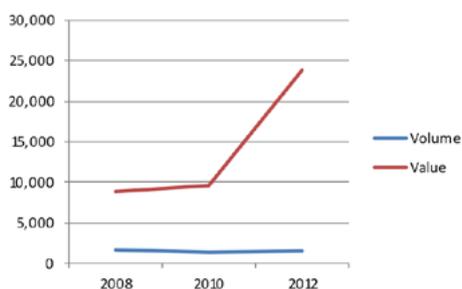
PRODUCT QUALITY

Although process quality management systems are crucial for market access, it is also important to adhere to product quality standards.

At least adhere to the minimum quality requirements of the [ESA](#), and the [ISO standard 6577-2002](#) the latter of which concerns specifically whole or broken nutmeg.

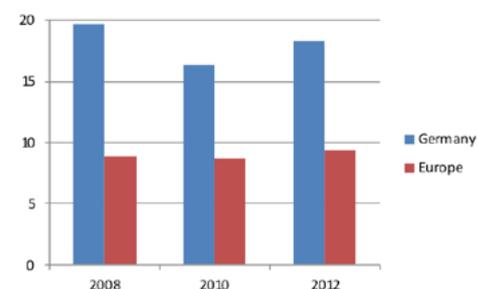
TRADE AND MACRO-ECONOMIC STATISTICS

FIGURE 1: TOTAL GERMAN CONSUMPTION* OF NUTMEG, VALUE IN THOUSAND AND VOLUME IN TONNE



* Apparent consumption calculated as imports-exports
Source: Eurostat, 2013

FIGURE 2: GERMAN NUTMEG CONSUMPTION* COMPARED TO THE EUROPEAN AVERAGE, GRAM PER CAPITA



* Apparent consumption calculated as imports-exports
Source: Eurostat, 2013

INCREASING PRICES FOR NUTMEG IN GERMANY

In 2012, apparent consumption of nutmeg in Germany (i.e. total imports minus total exports) amounted to 1.5 thousand tonnes, representing a value of € 24 million. Between 2008 and 2012, German consumption of nutmeg in terms of volume remained more or less stable, whereas in terms of value, it increased by more than 50% annually. This is the result of increased imports prices of nutmeg entering Germany.

This price increase is the result of a lower global supply of nutmeg. The decline in production can be attributed to the shift away from nutmeg towards the production of more profitable crops, such as chilli, potatoes, cocoa and rubber.

CONSIDERATIONS FOR ACTION

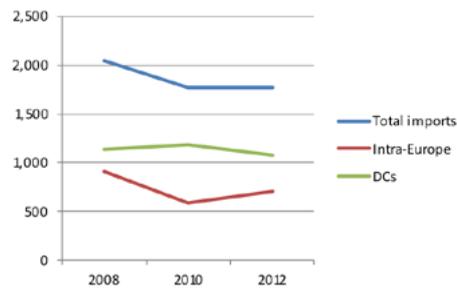
Monitor developments in German (per capita) consumption, because in an increasing market there is more room for new suppliers. The website of the [Association of the German Spice Industry](#) is interesting in that respect, which offers annual [statistics](#) on market developments.

However, it is reported that, more recently, in 2013, nutmeg prices have dropped as supply has surpassed demand in local as well as in international markets.

Compared to the European (EU+EFTA) average, per capita consumption of nutmeg in German is about twice as high, which makes Germany a relatively interesting country in that respect. The relatively high consumption can be explained by the sizeable meat industry in Germany, which uses large amounts of nutmegs.

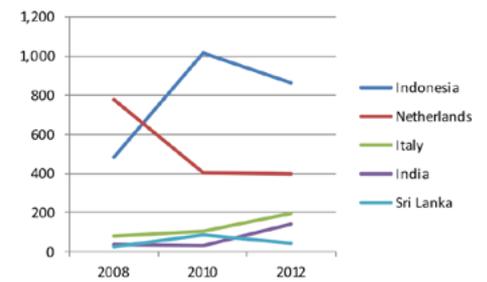
Ensure you stay up to date on prices. There are paid services available, like [Public Ledger](#), who publishes monthly nutmeg price analyses.

FIGURE 3: GERMAN IMPORTS OF NUTMEG, VOLUME IN TONNES



Source: Eurostat, 2013

FIGURE 4: LEADING SUPPLIERS OF NUTMEG TO GERMANY, VOLUME IN TONNES



Source: Eurostat, 2013

LIMITED NUMBER OF SUPPLIERS

In 2012, German imports of nutmeg amounted to almost 1.8 thousand tonnes, representing a value of € 30 million. Germany is the second largest European importer of nutmeg in terms of volume (24%), but is the number one importer of nutmeg in terms of value (27%). Only the Netherlands imports a larger share in terms of volume, accounting for 27% of total European imports. Consumption in absolute terms is largest in Germany, since the Netherlands exports a large share of its nutmeg imports.

CONSIDERATIONS FOR ACTION

A good source for analysing German trade in nutmeg is the [Export Helpdesk of the European Commission](#).

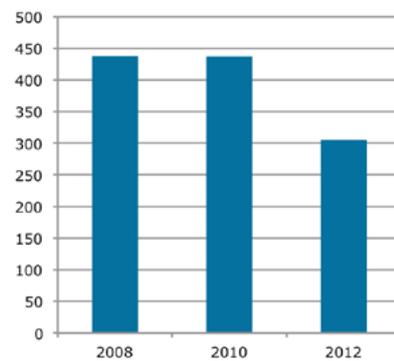
Germany's second largest supplier of nutmeg is the Netherlands. This concerns re-exported nutmeg the Dutch imported from nutmeg producing countries (specifically from Moluccas).

Germany does not produce nutmeg itself, making the market completely dependent on imports. Germany only has 15 supplying countries worldwide while 4 supplying countries make up about 90% of Germany's total imports (Indonesia, The Netherlands, Italy and India). Imports from the Netherlands and Italy concern re-exports.

Imports of nutmeg have dropped until 2010, but have been at a steady level since then. The most interesting development is the shift from importing nutmeg through the Netherlands, to importing directly from Indonesia.

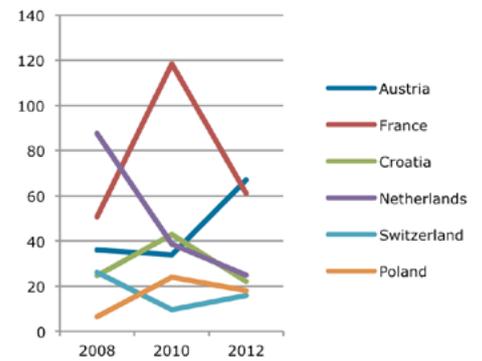
Explore opportunities to supply the German market directly. If you are larger exporter with excellent quality, you can supply directly to large industries. If you are an exporter with specialty nutmegs (e.g. organic) you can supply directly to organic spice importers. The [Organic Database](#) is a good starting point for finding such specialist stores.

FIGURE 5: GERMAN EXPORTS OF NUTMEG, VOLUME IN TONNES



Source: Eurostat, 2013

FIGURE 6: TOP 5 EXPORT DESTINATIONS OF GERMAN NUTMEG, VOLUME IN TONNES



Source: Eurostat, 2013

INTRA-EUROPEAN RE-EXPORTERS ADD VALUE

In 2012, almost 90% of total nutmeg exported by Germany was destined for the European market. The top 5 export destinations were Austria, France, Croatia, the Netherlands, Switzerland and Poland. These countries together received almost 70% of the nutmeg exported by Germany.

Data on price show that in 2012, Germany imported nutmeg at a price of € 16.68 per unit, while it exported nutmeg with a unit price of € 18.79. This indicates German exporters add some value to nutmeg between import and export, e.g. packaging or grinding.

CONSIDERATIONS FOR ACTION

Consider using Germany as a first entry point to reach other countries in Europe.

MARKET TRENDS

UNGROUND NUTMEG

There is a general shift in demand from ground spices to whole spices, and this is even more applicable to nutmeg imported into Germany. As an example, almost 80% of German nutmeg imports consisted of whole nutmegs, compared to 65% on average in the EU.

Only sell you nutmeg processed (ground or crushed) if your buyer in Germany explicitly asks for this. You will find out that, most often, whole nutmegs are preferred.

SUSTAINABILITY

Sustainable sourcing has become increasingly important in Germany. Although sustainability in the production and trade of spices has historically not received much attention from the food industry, this is changing steadily. Germans demand both organic and fair trade-certified products. Dual certification (i.e. fair trade and organic) is also becoming more common.

Certification is particularly relevant to producers which aim to enter a less competitive market.

Dual certification is a good way to differentiate your nutmeg from your competitors and increase the price of your product. If you wish to supply dual-certified nutmeg, make an assessment first to determine whether this is financially viable for your company, since the market for dual certified nutmeg is still very small.

HEALTHY LIFESTYLE 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 such as salt, sugar and synthetic additives.

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 nutmeg to find non-traditional uses for it

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.

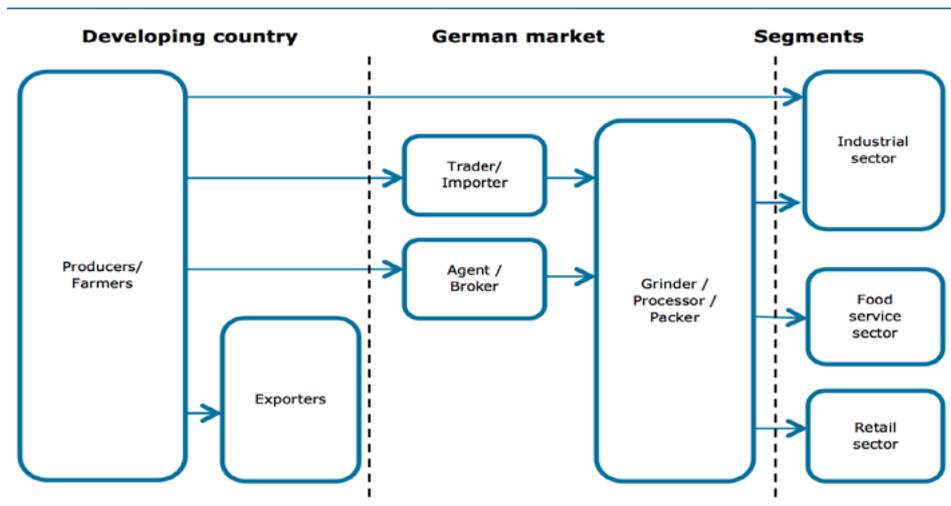
As a DC supplier of nutmeg, ensure your product is produced in such a way that it complies with all necessary requirements to enter the European market. This means you need to monitor EU legislation concerning herbs and spices carefully and adjust your production method accordingly.

The stricter control on legislation compliance is illustrated by an example of Indonesian exporters which were [audited in 2012](#) in response to the rising concern on aflatoxin contamination in nutmeg exports destined to the EU.

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.

MARKET CHANNELS AND SEGMENTS

MARKET CHANNELS



GRINDING MOSTLY DONE IN DESTINATION COUNTRY As mentioned, nutmegs are usually (nearly 80% for Germany) exported without further domestic processing. Grinding is done closer to the end consumer in order to retain the most amount of flavour to ground nutmeg. Drying and storing of nutmegs is done in the producing country.

CONSIDERATIONS FOR ACTION

DC suppliers can add value to their product by incorporating grinding practices at their facility. Keep in mind that nutmegs lose flavour fast once they are ground, meaning that grinding nutmegs is only a viable option if you also have a quality packaging facility.

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

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

GENERAL ONLINE SHOP There is an online shop called So Schmeckt's which sells nutmegs for three of Germany's top brands, namely FUCHS (ground or whole), Ostmann (ground or whole) and UBENA (whole). 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 nutmeg.

MARKET SEGMENTS

PREMIUM SEGMENT The premium segment refers to high quality or 'sound' nutmegs, which are usually traded in very small volumes and at very high values. These spices are associated with strict quality standards regarding grade, taste, oil content, etc. Spices in this segment are rarely processed into food products, and are normally sold in retail packages in specialised shops (gourmet shops, organic supermarkets, fair trade shops).

Supply your buyers with documentation on the different uses of nutmeg. This can be documentation including food recipes, grinding methods or proportions to be used. This way you can trigger your buyers to utilise nutmegs for uses they might not have been aware of beforehand.

MIDDLE RANGE SEGMENT The middle range segment refers to 'substandard' quality nutmegs, usually traded in larger quantities and accompanying market prices. Spices belonging to this segment are usually sold in mainstream retailers or are further processed in the food industry and for oleoresin extraction and essential oil distillation. This segment also commands strict quality controls, especially for nutmegs which will be marketed in retail channels. The bulk of German imports fall within this segment. Within the food industry, it is used to flavour a variety of baked goods, confectionery, meats, sausages and sauces.

CONSIDERATIONS FOR ACTION

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.

LOW PRICE SEGMENT The low price segment, or 'distilling' segment, refers to nutmegs which are mostly used for the distillation of essential oils, and not popular in the food industry, particularly not in Europe.

MARKET COMPETITIVENESS

The market for nutmeg in Germany is quite **dynamic**, which can be concluded from the erratic developments of imports to Germany and related import prices. Despite staggering prices, demand remained high in the last few years. This is true for many spices, as they usually make up a relatively small part of a final food product and they contribute little to its total cost.

Although nutmeg trees can be cultivated in many geographical areas, the 8 – 20 year maturation period poses a **barrier** to potentially new nutmeg exporting countries.

Make sure to monitor price developments of nutmegs as well as developments in production in competing countries. A good source, although paid, is the [Public Ledger](#), which publishes monthly nutmeg price analyses and news on nutmeg all year round.

STRICTNESS OF THE RULES AND LEGISLATION The strictness of the rules and legislation concerning nutmeg in the EU, and thus Germany, makes it rather hard for DC producers to enter this market. Several upcoming markets have less strict legislation.

Only consider supplying the German market if you are able to comply with all strict legislation regarding nutmegs. Make an assessment whether required adjustments to your production process are worth the effort.

USEFUL SOURCES

- European Spice Association: www.esa-spices.org
- Association of the German Spice industry: www.gewuerzindustrie.de
- Biofach (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

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