Exporting pepper to Europe

Although pepper production has increased and prices have slightly decreased, a sense of scarcity continues in the pepper industry. European companies are constantly looking for suppliers that can offer sustainable supplies of good-quality pepper and that comply with food safety requirements. It is even better if your pepper can be traced back to the source. Opportunities are also growing for crushed pepper.

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1. Product description

Peppercorns are the berries of the plant *Piper nigrum*. On the European market, pepper is sold as dried whole or ground/crushed berries.

The most commonly sold pepper on the European market is:

- black pepper dried, ripe berries
- white pepper dried berry seeds (skin of berries is removed)

Other types of pepper on the European market are green and pink peppercorns. These types can be sold mixed with black and white pepper. Green pepper is sold as a delicacy, preserved in brine (solution of salt in water) or vinegar.

Pepper is traded under two different Harmonised System (HS) codes. These codes cover whole pepper (HS code 090411) and crushed or ground pepper (HS code 090412).

2. What makes Europe an interesting market for pepper?

Worldwide prices have been decreasing recently

In 2017, the global price for pepper amounted to USD 4,100. Until 2015, the global market for pepper witnessed an unprecedented cycle of rising prices. In 2006, at the beginning of the cycle, black pepper was traded at below USD 2,000 per tonne. In 2015, this price had increased to around USD 10,000 per tonne.

This price development is explained by a growth in supply relative to demand. Supply is growing especially rapidly in emerging Vietnam, Brazil and Cambodia. In 2017, global pepper production amounted to 523 thousand tonnes, up from 434 thousand tonnes in the previous year. However, the available supplies of pepper that comply with European food safety requirements are limited. This is largely the result of growing problems with the use of pesticides in pepper, especially in pepper from Vietnam. Pepper that does comply with the requirements for maximum residues of pesticides may attract a price premium.

Continuously growing European pepper consumption of pepper offers opportunities

In 2017, the global consumption of pepper amounted to 446 thousand tonnes, of which 85 thousand tonnes in Europe. Global consumption has increased by 2.4% per year, while European consumption increased by 1.8%. See the section below for more information on interesting European markets.

Despite the rise in global pepper prices up till recently, the European market continued to grow, though at a relatively slow rate. This fact is because pepper is an essential ingredient and its price only accounts for a small share of the total cost of the food in which it is used. This leads to opportunities on the European market, also because buyers still find it difficult to secure sufficient supplies meeting requirements.

Data on European imports show that import value has grown by 1% annually from 2013 to 2017, while import volume has been stable. In 2017, 63% of the imports originated in developing countries. Please note that Figure 1 below excludes imports from countries other than European or developing countries. In 2017, these other countries only accounted for 0.5% of the total European imports.

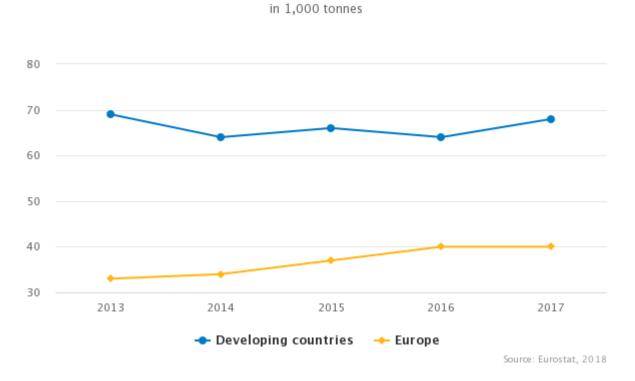


Figure 1: European imports of pepper 2013-2017

European buyers are always looking out for new suppliers who are able to offer competitive supply. They are more willing to invest in long-term relationships or collaborations with their suppliers so as to ensure sufficient supplies. This opens up opportunities for you. Buyers are actively looking for new suppliers that can meet the requirements below. They are also willing to pay higher prices to suppliers that can:

- deliver stable supplies of pepper, both in quantity and in quality;
- comply with delivery times;
- comply with food safety requirements.

Tips:

Consider investing in pepper production. The growing middle classes in emerging economies are likely to consume more pepper in their meals, so the upward pressure on prices may continue; especially since suppliers cannot easily step up production of pepper, as it is a difficult crop to grow.

Invest in establishing longterm trade relationships with your buyers. Demonstrate that you can deliver stable supplies which meet the requirements for food safety and product quality.

Strong role for European processors in pepper trade

As pepper does not grow in Europe, all European supplies need to be imported. In 2017, 83% of the European re-exports were traded with other European countries.

European exporters or re-exporters add a lot of value to re-exported and processed pepper by further processing and packaging. Currently, processing and heat treatments such as steam sterilisation are still mainly done by European processors. More and more, these processes are being performed in the countries of origin. This development offers opportunities for you, if you can comply with European buyer requirements. Especially heat treatment has become an important buyer requirement.

European processors focus on improving activities:

- downstream, such as blending or developing new tastes;
- upstream, by strengthening their cooperation with exporters in developing countries. Such cooperation entails transfer of knowledge and resources or European companies integrating companies in developing countries.

Tip:

Explore opportunities to work together with European processors, especially large ones that have the size and resources to invest. You can find these processors in the member lists of the national spice associations in Europe. Go to the member section of the European Spice Association (ESA) for an overview of associations.

Germany and the United Kingdom are interesting target countries

Figures 2 and 3 give an overview of the leading importers of pepper in Europe and their consumption (consumption is calculated as imports minus exports). Please note that the data in these figures are an indication of the European pepper market. Actual imports and exports may differ, due to changes in stock levels or unregistered trade.

Interesting markets for you can be Germany, the United Kingdom and the Netherlands. These countries have a higher share of imports from developing countries than the European average (63%). Interesting markets with growing imports (France, Italy) or a high per capita consumption (Poland) are also included in Figure 2 and 3.

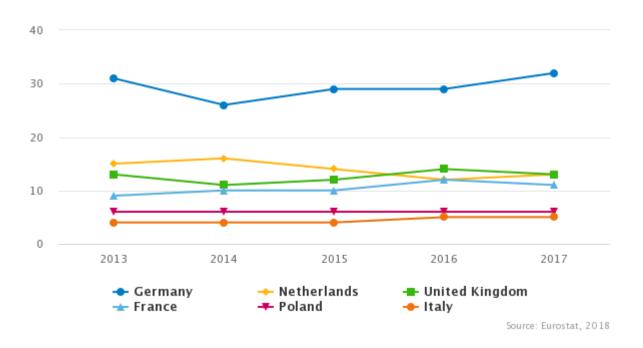
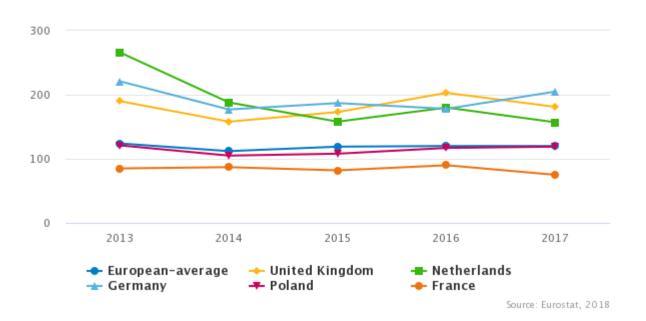


Figure 2: Leading European importers of pepper

2013-2017, in 1,000 tonnes

Figure 3: Per capita pepper consumption of leading importers 2013-2017

in grams per capita



Some important observations about these markets, starting with the largest importers:

- Germany offers good opportunities as the largest importer and trader of pepper in Europe. In 2017, 85% of its imports originated in developing countries. Although Germany is the main consumer of pepper, its consumption has decreased since 2013. However, Germany remains the largest importer of pepper in Europe with stable imports between 2013 and 2017. As a result, the German market could still be interesting for you as an exporter.
- Although imports into the Netherlands decreased by 3% annually, the country is the second largest importer

of pepper in Europe. It has interesting opportunities for as an exporter, since the share of imports from developing countries is high (89% in 2017). In addition, its per capita consumption is relatively stable.

- The United Kingdom also is a large pepper importer in Europe and has an interesting market potential. The country's imports remained stable in volume and increased annually by 5% in value. The per capita consumption in the United Kingdom has increased as well.
- France is an important market for exporters from developing countries as well. In 2017, 71% of France's imports originated in developing countries. This country is also an important reexporter of pepper.
- Although Italy is a smaller importer, it is an increasingly important pepper importer. Over the last five years, Italy's import volume increased annually by 8%. About 50% of the imports in 2017 originated in developing countries.
- Poland is a stable importer of pepper, although most of the country's supplies comes from European reexporters. Polish imports from developing countries decreased by 37% annually between 2013 and 2017. The country is a growing re-exporter of pepper to eastern European countries such as Ukraine, Russia and Belarus.
- There are some relatively small importing countries which are growing rapidly and have an increasing market potential for pepper from developing countries. Examples include Romania (growing by 10% annually over the past five years) and Greece (growing by 13% annually over the past five years).

Tips:

Conduct additional market research to gain an insight into the differences between the various European markets mentioned above. For example, create a free account for statistical databases such as Eurostat or ITC Trade Map.

Visit or participate in trade fairs to test whether the market is open to your product, obtain market information and find potential buyers. The most relevant trade fairs in Europe are Food Ingredients Europe, BioFach (for organic products), SIAL and Anuga.

See our tips on Finding buyers and Doing business for additional information.

3. What are the most important trends on the European market for pepper?

Changing buyer expectations

The growing supply scarcity on the pepper market causes buyers to have different expectations from their suppliers.

In the past, taste profiles were key to European buyers. They used pepper from a specific origin for its taste profile (a consistent taste and quality). These origins and taste profile were also used in the marketing of pepper.

On the current market, other issues have become more important than taste profiles. This situation is especially the case when pepper is used in blends which are not marketed around a specific origin.

Buyers will switch to new origins if producers there can deliver on the following aspects.

- supply continuity: buyers need to know that they can count on you for specific supply levels;
- quality: you need to show to your buyers that you understand quality issues (for more information on quality requirements, see below);
- compliance with pesticide limits in European legislation: in Vietnam specifically, a large share of the crops do not comply with European legislation on pesticides. Many small suppliers work in this supply chain and there

is no full transparency or traceability in the field (see below for more information on pesticide limits);

• traceability: this aspect will become even more important in future. First of all, this requirement comes from European buyers who want more control over the supply chain. Second of all, consumers are also increasingly interested in knowing where their products come from. Examples include labelling products with QR codes or storytelling up to the farmer level. The Cambodian company FARMLINK adds trace codes to its pepper, so customers can find the farmer that produced it. In order to ensure traceability, buyers are more willing to source directly from producers.

Tips:

Ensure that your product offering meets the buyer expectations mentioned above.

Try to provide a fully traceable product. This process can make it easier for you to access the European market by distinguishing yourself from the competition.

See the section on legal and quality requirements below for additional information.

See our tips for **Doing business** for additional information.

Emerging suppliers of pepper

The global supply scarcity of pepper and the growing prices open up opportunities for new producers of pepper. Several countries have entered the global market.

Cambodia and Laos are promising new producers. Most of Cambodia's production is exported, mainly to Vietnam. Some African countries such as Ethiopia and Madagascar have started production on a small scale. If you already export pepper to Europe, these emerging suppliers can become a competitive threat.

Tips:

If you already produce pepper for the European market, follow developments of emerging suppliers to anticipate sources of competition. Keep up to date with market and crop reports on pepper; for example, from the European Spice Association or Nedspice. You can also ask your buyers for this type of information.

If you are a new producer, demonstrate to your potential buyer that you can offer a continuous supply of goodquality pepper which complies with food safety requirements.

Growing awareness of sustainability

Sustainable sourcing is key in Europe and awareness of sustainability is increasing. As a supplier, you will face increasing buyer requirements for sustainability. The use of self-verification systems is expected to grow. Here, you assess your compliance with your buyer's sustainability code.

You can also certify your products according to sustainability standards such as Organic or Rainforest Alliance. Certified products are a niche market in Europe. Most buyers on the mainstream market are unwilling to pay more for sustainability, such as importers targeting large retail chains.

Although the total market is small, the demand is increasing for certified products. For example, the retail sales of organic food products are growing rapidly, especially in northern European countries such as Sweden (19% in

2015) and Norway (25% in 2015) or eastern European countries such as Estonia (47% in 2015) and Lithuania (25% in 2015). Germany (18% in 2015) and Austria (24% in 2015) also experienced major growth in organic retail sales.

The main sustainability standards on the European market for pepper are as follows.

- Organic and Fairtrade: these standards have already found a place on the market. Many large retailers and speciality shops in Europe include organic pepper in their product offerings. Large supermarkets also sell Fairtrade pepper mills, such as Bart's Organic and Fairtrade pepper mills.
- Rainforest Alliance (RA): RA certified pepper was introduced on the European market in 2013. The largest drivers of RA certified pepper are members of the Sustainable Spice Initiative, such as Euroma, Olam and Nedspice. These members have invested in training farmers and exporters within countries of origin to comply with Rainforest Alliance requirements. In January 2018, Rainforest Alliance (headquarters in USA) merged with fellow standards organisation UTZ (headquarters in the Netherlands), forming a new social and environmental standards organisation, carrying forward the Rainforest Alliance name.

Tips:

Find out what your buyer expects from you in terms of sustainability. Always verify whether they are interested in certified ingredients. European companies have different definitions, priorities and ambition levels when it comes to sustainability. Some may want you to comply with their code of conduct or sustainability code, while others expect product certification.

If you do consider certifying your pepper, determine whether it is feasible for you. Can you find enough buyers for your product to offset your investments? You can look for buyers online, such as in the list of European importers of organic products on the website of the International Trade Centre. In addition, you can search for exhibitors at BioFach, the most important organic trade fair in Europe.

Look for possible partners to promote sustainability. You can use available programmes and subsidies from governmental or nongovernmental organisations within developed countries for investments in sustainability. For more information, see websites such as the Sustainable Spice Initiative, the Netherlands Enterprise Agency, the German Ministry for Economic Cooperation and Development or Cordaid.

See our study of Trends on the European market for spices and herbs for additional information on sustainability and other trends.

See our study of **Buyer requirements for spices and herbs** for additional information on certification standards and selfverification.

See our study of Exporting sustainable spices and herbs to Europe for additional information. This document also includes longterm expectations of the market for certified sustainable products.

4. Which requirements should pepper comply with to be allowed on the European market?

You can only export pepper to Europe if you comply with the buyer requirements for spices and herbs.

Legal requirements

If you do not comply with European legal requirements, your product can be refused at the border or withdrawn from the market. As there are limited supplies of pepper that comply with food safety requirements, compliance is key and can even result in a price premium for your product. When exporting to Europe, you have to comply with the following legally binding requirements.

- Food safety: traceability, hygiene and control as specified in the General Food Law;
- mycotoxins contamination: for pepper, maximum levels for mycotoxins are set for aflatoxin (between 5.0 μg/kg for aflatoxin B1 and 10 μg/kg for the total aflatoxin content B1, B2, G1 and G2). For ochratoxin, the maximum level is 15 μg/kg;
- maximum residue levels of pesticides: this fact is one of the main issues in pepper export, especially in Vietnam;
- microbiological contamination: the presence of salmonella is the main reason for banning pepper from the European market;
- food additives and adulteration: spices and spice blends are rejected by custom authorities for containing undeclared, unauthorised or excessive levels of extraneous materials;
- maximum levels of polycyclic aromatic hydrocarbons: contamination with PAHs stems from bad drying practices;
- irradiation: this process is allowed but not commonly used, as consumers do not always accept this treatment. Discuss this option with your buyer.

European buyers are increasingly requiring their suppliers to use steam sterilisation in order to combat the microbiological contamination of pepper. As black pepper is more prone to this contamination, steam sterilisation is particularly important for this type of pepper. You could earn a significant premium if you can supply pepper that is sterilised at the source. However, investments in the necessary equipment can be very costly, at up to $\notin 1$ million.

Steam sterilisation could be damaging to the crop, as it can harm the taste of the pepper. Research is conducted into alternatives to this method. Currently, it is still the cheapest and safest method to combat microbiological contamination.

Tips:

Check the Rapid Alert System for Food and Feed (RASFF) database for examples of pepper withdrawn from the market and the reasons behind these withdrawals.

Comply with the requirements listed above. Your buyer will transfer the costs for cleaning contaminated pepper to you if you do not.

Compare your company with your potential buyer to find a strategic fit. Can you comply with extralegal requirements for food safety and sustainability? What quantities of supplies can you deliver? What type of product do you supply, mainstream or niche?

Always discuss with your potential buyers whether they want steam sterilisation. If you cannot sterilise your pepper yourself, look for local sterilisation companies that can provide this service for you.

Comply with food safety requirements during drying, storage, processing (such as sieving, mixing, grinding or crushing), packaging and transport. If you do not comply, steam sterilisation will not work.

You also need to prevent contamination with mycotoxins and other contaminants, because steam sterilisation cannot take these substances out.

Keep up to date on the development of alternatives to steam sterilisation by checking online sources such as GreenFooDec.

Additional requirements

Consider complying with the following non-legal requirements to ease market access. By complying with these requirements, you can create a competitive advantage for your company or product offering. European buyers

can use these requirements as selection criteria.

- food safety certification: the most important food safety management systems in Europe are British Retail Consortium (BRC), International Featured Standards (IFS Food), Food Safety System Certification (FSSC 22000) and the Safe Quality Food programme (SQF). These standards are accepted by several major retailers, but some buyers may prefer one system over the other.
- Corporate Social Responsibility (CSR): companies have different requirements for CSR, such as signing their code of conduct or following common standards including the Supplier Ethical Data Exchange (SEDEX), Ethical Trading Initiative (ETI) or the Business Social Compliance Initiative code of conduct (BSCI).

Requirements for niche markets

Complying with the following standards can be essential to access specific market segments and buyers in Europe.

- sustainable product certification: the major certification systems are Organic, Fairtrade and Rainforest Alliance;
- selfverification: suppliers assess their own compliance with the sustainability code of buyers. Examples include Unilever's Sustainable Agricultural Code (SAC) or the Olam Livelihood Charter.

Quality requirements

Product quality is a key issue for buyers in Europe. You need to comply with the Quality Minima Document from the European Spice Association (ESA). The Quality Minima Document is leading for the national spice associations in Europe and for most key players on the market. It specifies the legal European requirements for unprocessed pepper, as well as additional buyer requirements that are not laid down in legislation. The document does not cover crushed or ground pepper.

	Ash (max.)	Acid-Insoluble Ash (max.)	Moisture (max.)	Volatile oil (min.)
Black pepper	7.0%	1.5%	12%	2.0 ml/100 gr
White pepper	3.5%	0.3%	12%	1.5 ml/100 gr

Table 1: Product requirements based on Quality Minima Document from ESA

In the country of production, pepper is graded according to the national standard. The International Pepper Community (IPC) gives an overview of pepper quality and grades.

Tips:

Use detection and prevention methods to ensure that your pepper is not contaminated with metal, stones or animal droppings.

Do some rudimentary cleaning.

Use more sophisticated cleaning methods to add value to your product.

Check ISO standard 55641982 for general guidelines on the grading, handling and packing of pepper.

Follow ESA's Quality Minima Document on the chemical and physical parameters that your unprocessed pepper needs to comply with when it is sold in Europe.

See the overview of pepper quality and grades of the IPC for additional information on grading your pepper.

Labelling requirements

Pay extra attention to labelling your product, as this aspect is important for European buyers.

For bulk pepper, your product label must include:

- the name of the product
- details of the manufacturer (name and address)
- batch number
- date of manufacture
- expiry date
- weight of contents
- other information that the exporting and importing countries require, such as the bar code, producer and/or packer code, as well as all extra information that can be used to trace the product back to its origin.

Tips:

See our study of Consumer packed spices and herbs for requirements on consumer packaging and labelling.

See the website of the European Commission for additional information on food labelling legislation. This requirement only applies to final products that are sold directly to consumers.

Packaging requirements

Pepper (whole and powder) should be packed in new, clean and dried:

- jute bags;
- paper bags;
- cloth bags;
- poly woven bags with inner linings made of foodgrade material;
- poly pouches or HighDensity Polyethylene (HDPE) bags of food-grade material.

Ground pepper must be packaged in polypropylene bags. Do not use polythene bags, as they result in flavour loss.

Tips:

Always ask your buyer for their specific packaging requirements.

Store packaged pepper in a dry, cool place to prevent quality deterioration.

If you offer Organic certified pepper, physically separate it from pepper that is not certified.

5. What competition do you face on the European pepper market?

Pepper-producing countries

Your direct form of competition stems from other pepper-producing countries. In 2017, the global pepper production amounted to over 523 thousand tonnes. Around 83% of this production consisted of black pepper.

Global stock levels remained relatively low in 2017, but a record harvest is expected for the coming year which will further increase stock levels. Especially Vietnam is increasing its production steadily. Moreover, the negative effects of El Niño in 2016 have passed.

Although Vietnam is still the main supplier of pepper to Europe, industry experts indicate that it is becoming harder to source pepper from Vietnam. The country has issues in complying with European legislation on pesticide residue levels: a large share of Vietnam's crop does not comply. Insufficient transparency is a contributing factor, as there are many small pepper suppliers in the value chain. Some buyers are increasingly sourcing from other origins to decrease their dependency on Vietnam.

Existing suppliers Brazil and India have made new plantings. These plantings are expected to relieve the tight supply situation somewhat, but they will take 2–3 years to become productive.

Suppliers of whole and crushed pepper from developing countries

Figure 4 below gives an overview of the main suppliers to Europe in terms of whole and crushed pepper.

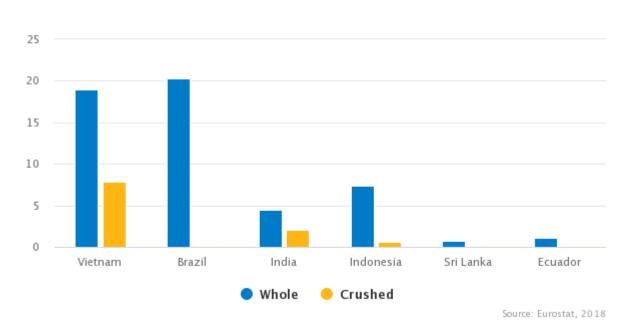


Figure 4: Suppliers of pepper from developing countries to Europe, by level of processing 2017

in 1,000 tonnes

In 2017, suppliers from developing countries exported 68 thousand tonnes to Europe, at a total price of €400 million. Over 80% of these imports consisted of whole pepper corns, which are crushed or ground in Europe.

Growing European imports of crushed pepper lead to opportunities for local value addition

Crushed or ground pepper offers opportunities for value addition in the country of origin. These opportunities are growing, as long as you can comply with quality and buyer requirements. However, imports of crushed or ground pepper from developing countries slightly decreased between 2013 and 2017 by 1% annually. This was

the same for whole pepper.

Vietnam and India are currently the only developing countries that supply large amounts of crushed or ground pepper to Europe. Both countries are increasingly focusing on exports of crushed pepper. From 2013 to 2017, the European imports of crushed pepper from Vietnam increased by 1% annually, while imports from India decreased by 11% annually.

Imports of crushed pepper from a number of smaller supplying countries increased significantly. Examples include (on an annual base):

- Indonesia (+6%)
- Brazil (+65%)
- Jamaica (+377%).

However, these countries together accounted for only 3% of the European imports of crushed pepper.

Tips:

Stay up to date on market developments and keep an eye on your largest competitors. Consult multiple sources. Estimates and projections for a crop such as pepper are only valid for 4–6 months and can be incorrect. Moreover, production prognoses and market conditions can change rapidly.

Look for online crop reports for more information; for example, from Nedspice, or public sources such as Business Standard. You can also visit events where these reports are shared by sector exports, such as conferences or trade fairs.

Have a look at the harvesting calendars of white and black pepper provided by Nedspice to see the different harvesting periods of large producing countries. Harvesting periods of pepperproducing countries differ strongly, which can affect your competitive position throughout the year.

Check the Food and Agriculture Organization of the United Nations (FAOSTAT) website for pepper production data.

Be aware that you if you produce crushed or ground pepper, you are competing with European processors directly. Your buyers could ask you to provide the same service as European reexporters. Expect requirements for short supply times, small orders, steam sterilisation, further processing, and so on.

See the publication from Practical Action on Pepper processing for more information on processing crushed or ground pepper. You can also find suppliers of processing equipment in this document. See our study of Exporting valueadded spices and herbs to Europe for additional information.

See our study of oleoresins in the European food industry for more information on valueadded pepper products.

6. Through which channels can you get pepper on the European market?

See our study of Market channels and segments for spices and herbs for an overview of channels, segments, trends and developments. The channels for pepper do not differ significantly from this general overview.

7. What are the end-market prices for pepper?

Pepper prices have increased substantially in recent years.

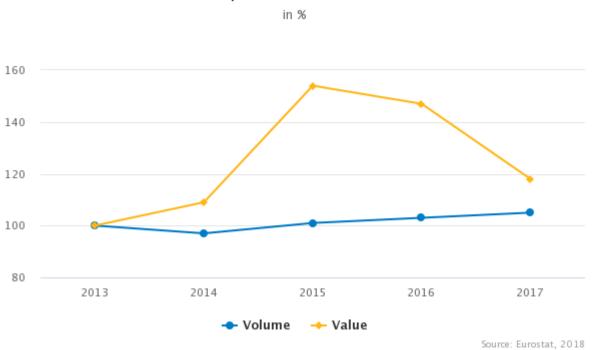


Figure 5: Trends in volume and value of European pepper imports 2013-2017

Figure 5 shows that in 2015, at the top of the price cycle, European importers paid much more than in 2013. In 2017, this difference was again much smaller, as prices dropped. The International Pepper Community indicates that prices are decreasing in various production countries due to the weak demand.

Pepper that complies with European regulations on pesticides is sold at a premium. Estimates range from around US\$ 200–300 per tonne up to US\$ 2,000 per tonne.

In the retail sector, prices for sustainably certified pepper are significantly higher than those for conventional pepper. For example, organic pepper may carry a premium of 20–40%.

Tips:

Make sure that your prices reflect the quality of your product.

Stay up to date on pepper prices by checking websites such as Commodity Online and the International Pepper Community (IPC). You can also visit websites of national spice associations for pepper prices, such as Vietnam Pepper Association and Spices Board India.

Check market and crop reports for price analyses. Examples include those published by Nedspice or public sources such as Business Standard.

See our study of **Buyer requirements for spices and herbs** for more information on certification standards.



Source: ProFound

Figure 6 gives an indicative price breakdown for pepper. Actual margins may differ, since these prices are influenced by various factors such as:

- country of origin;
- current and expected future harvest situation;
- quality of the raw material;
- level of processing;
- level of demand;
- trends in prices.

In addition, margins and profits can be higher in countries such as Vietnam. Vietnamese suppliers are organised and can keep hold of pepper stocks. However, margins and profits can vary in Vietnam. There are many issues in this country such as pesticide use and a lack of traceability. Farmers in Indonesia and Sri Lanka are also becoming more professional. They are increasing the scale of their operations, thanks to good market conditions.

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