# **Exporting vanilla extracts to Europe**

On the competitive European market for vanilla extracts, you can gain a competitive advantage if you offer extracts with unique specifications. European buyers are particularly interested in extracts from sustainably sourced vanilla. Expect competition from both natural vanilla and synthetic vanillin.

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# **1. Product description**

Photo: vanilla pods



Photo: vanilla absolute



Vanilla is the fully grown fruit of the orchid *Vanilla planifolia (syn. V. fragrans)* which is commonly known as Bourbon vanilla, *Vanilla tahitensis* and *Vanilla pompona*. Vanilla is harvested before it is fully ripe, after which it is fermented and cured in the producer country. Madagascar, the leading supplier of vanilla, produces mainly two types of vanilla. These are red vanilla, commonly known as Red Foxies, and black vanilla. The red vanilla is mostly destined for extraction. The black vanilla is mainly destined for gourmet and speciality industries where it has earned the reputation as the "best vanilla in the world".

This fact sheet focuses on the European market for extracts with different levels of concentration:

#### Infusion

A solution of vanilla extract in ethanol. Suppliers can deliver vanilla extract in the form of an infusion in order to facilitate the application in low concentrations and prevent the need to use a dripper. These infusions are available in different concentrations (i.e. folds).

## Oleoresin

Extraction with alcohol results in a highly concentrated viscous extract which is available in different concentrations (tenfold and twentyfold).

## Absolute

This is the most concentrated form of vanilla. There are two methods to extract the absolute:

- extraction with a hydrocarbon solvent such as hexane;
- CO2 extraction, which results in an oleoresin with a very wide range of components without solvent residue and subsequent off-notes. As CO2 extraction requires high-tech equipment and highly skilled staff, this type of extraction is rarely done at the source.

You can find more information on vanilla raw material in our study of the European market for vanilla. See our study of value-added spices and herbs if you are interested in exporting consumer-packed vanilla beans or powder.

Codes for vanilla extracts:

- Harmonised System (HS) 13021905 for vanilla oleoresin;
- no separate code for vanilla absolute. Vanilla absolute is included in 330129 (i.e. essential oils other than those from citrus fruit or mint;
- Chemical Abstracts Service (CAS) depending on extraction, vanilla can be registered as 84650-63-5 (extracts from *Vanilla fragrans*), 94167-14-3 (extracts from *Vanilla tahitensis*), 94280-16-7 (extracts from *Vanilla pompona*), 8047-24-3 (tincture of macerated *Vanilla planifolia*), 8023-78-7 (vanilla oleoresin) or 8024-06-4 (vanilla absolute), among other things.

# 2. Which requirements must vanilla extracts comply with to be allowed on the European market?

## **Food safety**

Food processors must have a food safety management system in place based on HACCP principles. These systems require companies to demonstrate their ability to control food safety hazards in order to ensure that the food is safe at the time of human consumption. Furthermore, products must be traceable throughout the supply chain. If European companies or authorities find out that the safety of your product cannot be guaranteed, they will take the product off the market and register it in the EU's Rapid Alert System for Food and Feed.

## Tips:

Search the EU's Rapid Alert System for Food and Feed (RASFF) database to see examples of

withdrawals from the market and the reasons behind these withdrawals.

Read more about HACCP and health control on the EU Trade Helpdesk.

#### Contamination

The EU has laid down maximum levels of contaminants, pesticides and criteria for the microbiological contamination of food.

#### Tips:

Minimise contamination of your product during growing, processing, packaging, transport and storage.

Do not make excessive use of chemicals and only use allowed pesticides. Use the EU pesticides database to find out which pesticides are allowed.

Safeguard hygiene in your facilities.

Pay attention to drying and storage in order to minimise microbiological contamination.

Apply solvent extraction to reduce microbiological activity further.

#### **Extraction solvents**

There are EU rules for the marketing and application of extraction solvents used in the production of foodstuffs and food ingredients.

#### Tip:

Only use allowed solvents, such as ethanol, and remove the solvent after extraction. Minimise residues of extraction solvents in the vanilla extract and ensure that they do not present a danger to human health. EU Directive 2009/32 sets Maximum Residue Limits for certain solvents. Click here for a summary of EU legislation on extraction solvents in food.

## 3. Which additional requirements do buyers often have?

#### Food safety certification

As food safety is a top priority in all EU food sectors, you can expect many players to request extra guarantees from you in the form of certification. In particular, many European food manufacturers require their suppliers to implement one of the following (HACCP-based) food safety management systems: BRC, IFS, ISO 22000 or SQF.

#### Tip:

Visit the website of the Global Food Safety Initiative and the Standards Map for more information on food safety management systems. Also find out whether the buyers that you target require certification and which food safety management system they prefer.

## Religion

European buyers commonly require certificates for compliance with kosher and halal requirements. This enables the food and beverage industry to use the ingredient in products targeted at a wide consumer group including Jews and Muslims.

#### Tip:

Obtain kosher and halal certificates. Often, this does not require changes in your processes. Refer to the Halal Authority Board or your certifier of choice for more information.

#### Documentation

Buyers need well-structured product and company documentation. Buyers generally require detailed Technical Data Sheets (TDS) and Material Safety Data Sheets (MSDS).

#### Tip:

Make sure that you have documentation (e.g. certificates of analysis, MSDS, food safety management certificates) available upon request. Buyers generally require a detailed TDS, which presents details about the composition of the extract, purity, and so on. Prepare your TDS and MSDS in compliance with Annex II of EU Regulation No 1907/2006. You can find an example of an MSDS for a vanilla extract here.

#### **Representative samples**

Your sampling method should result in lot samples that represent what you can deliver in the quantity, quality and lead time as specified by the buyer.

#### **Delivery terms**

Pay attention to strict compliance with delivery terms as agreed upon with your buyer.

#### Tip:

Familiarise yourself with international delivery terms.

## Website

European buyers look for credible suppliers. You can improve the perceived credibility of your company by developing your website accordingly.

#### Tip:

Synthite is a vanilla extracts supplier with a website that serves as a good example.

#### **Corporate Social Responsibility**

European buyers increasingly require their suppliers to take care of their Corporate Social Responsibility (CSR). There are different options to address CSR:

- Safeguard occupational health and safety at your company.
- Pay decent salaries to employees.
- Do not make use of child labour.

Some buyers require compliance with the Code of Conduct of the Business Social Compliance Initiative (BSCI).

#### Tip:

Implement a Code of Conduct. Find out whether there is a Code of Conduct for your sector or whether your buyer has a Code of Conduct. Alternatively, you can implement the BSCI Code of Conduct or even develop your own Code of Conduct in consultation with your buyers.

## 4. What are the requirements for niche markets?

#### **Certified sustainable**

Many European buyers ask their suppliers to improve the sustainability of their business. However, only few of them require corresponding certificates. In these few cases, common certification schemes include Organic and Fairtrade.

Logos of Fairtrade International and EU organic:



#### **Tips:**

Only consider certification of organic or otherwise sustainable production if you specifically target the niche market for these products. In the case of organic production, you will have to comply with the requirements of EU Regulation 834/2007. Read more about EU legislation on organic production via the EU website on organic farming.

Consider OHSAS 18001 certification for occupational health and safety or SA 8000 certification for

Visit the ITC Standards Map for more information on certification schemes for sustainable production.

## **Quality requirements**

- Buyers often have very specific quality requirements. Their specifications depend on the application of the product. Sometimes, you can adapt your production process (e.g. extraction method) to obtain the required specifications. Otherwise, you have to search for a buyer with more compliant specifications.
- The species of the vanilla used for extraction (e.g. Bourbon), the grades of the vanilla beans and the extraction method influence the composition of vanilla extract.
- Some buyers prefer CO2 extracts over alcohol extracts despite the higher costs, because alcohol extraction can lead to off-tastes.
- High temperatures and/or low pressure during extraction are a common cause of quality degradation.
- Vanillin is the most important constituent of vanilla extracts, as it gives vanilla its typical flavour.
- Every vanilla has "terroir". This term comes from the French wine industry. It points out the relation between the unique production conditions at the farm, such as the soil composition, and the quality of the product.
- Standardise your product's quality by blending extracts from different crops (e.g. early and late crops).

#### Labelling requirements

Enable the traceability of individual batches.

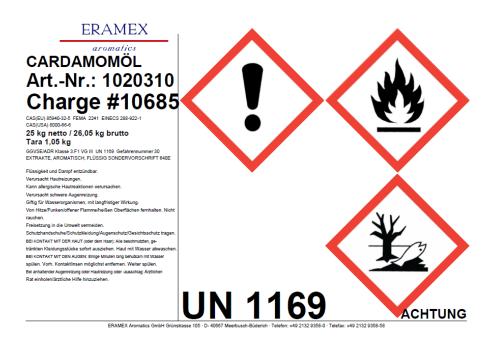
Use the English language for labelling, unless your buyer has indicated otherwise.

Labels must include the following:

- product name;
- batch code;
- whether the product is destined for use in food products;
- name and address of exporter;
- best-before date;
- net weight;
- recommended storage conditions.

Include the warning symbol on packaging of vanilla oleoresin to show that the product is hazardous. Also include Hazard Statement 317.

Example of a label for cardamom oil from a German importer:



## **Packaging requirements**

Ensure the preservation of quality by using clean food-grade containers as required by European Union legislation. The containers must be made of a material that does not react with constituents of the oil (e.g. lacquered or lined steel, aluminium or glass).

Optionally, fill the headspace in the container with a gas that does not react with constituents of the extract (e.g. nitrogen or carbon dioxide). This is not often required by buyers.

Hazardous materials, including vanilla oleoresin, require UN approved packaging as defined in the Classification, Labelling and Packaging Regulation.

Enable the re-use or recycling of packaging materials by, for example, using containers of recyclable material (e.g. metal).



Examples of food-grade containers for vanilla extracts:

# 5. What makes Europe an interesting market for vanilla extracts?

The global vanilla industry uses an estimated 1,500 tonnes of the global vanilla production of around 2,500 tonnes for extraction. Most extracts comprise infusions.

#### Imports

France is Europe's largest importer of raw vanilla. It has historic relations with Madagascar and built on these

relations to become the major importer of vanilla.

Madagascar, Indonesia, Papua New Guinea, Uganda and India are major suppliers of vanilla pods to Europe. Please refer to our fact sheet on vanilla for detailed trade data.

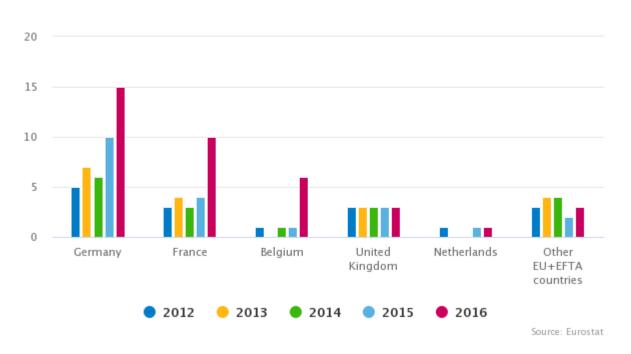


Figure 1: European imports of vanilla oleoresin 2012-2016

in € million

#### Export

France re-exports a lot of raw vanilla, but it also exports to other European countries. In 2016, French oleoresin exports amounted to  $\notin$  16.4 million or 161 tonnes. Please refer to our fact sheet on vanilla for details on raw vanilla exports.

In 2016, German and Dutch exports of vanilla oleoresin amounted to  $\in$  25 million or 201 tonnes and  $\in$  3.4 million or 47 tonnes, respectively.

## **Industrial demand**

The demand in Europe remains strong, as vanilla or vanilla extract is a very popular and versatile ingredient with many applications. Consequently, many food and beverage manufacturers like to use it in their formulations, including new product development.

## Production

Europe does not yet produce vanilla pods. Production registered by European statistics agencies only represents production in some of the French and Portuguese overseas territories (e.g. Réunion). The European mainland is completely reliant on imports. This situation could change in the next few years, as a Dutch consortium is developing greenhouse production of vanilla.

The large share (38%) of intra-EU trade in the total EU oleoresin imports indicates that European companies such as Nielsen Massey play a major role in oleoresin production. They are also estimated to account for most production of other extracts, such as infusions and absolutes.

## Trends

## European buyers want more grip on supplies

Vanilla is a strategic raw material for many European buyers. They cannot make their products without it and cannot substitute it either. Even though synthetic vanillin can potentially replace natural vanilla, several large food manufacturers cannot use synthetic vanillin, as they have publicly committed to using only natural flavourings in their products.

As securing vanilla supplies has a high priority, they need more control over supplies. This results in the intensification of trade relationships. Some buyers establish long-term supply agreements with their suppliers, while others become active players in vanilla production themselves.

## **Tips:**

Establish long-term trade relationships to ensure stable sales. At the same time, strengthen relations with your own suppliers to prevent side-selling.

Demonstrate reliability. Buyers are only interested in long-term trade relationships with reliable suppliers. You can demonstrate reliability with good communication (e.g. fast responses and no false promises), consistent supplies, during an audit by the buyer and with third-party certification.

## Sustainability is a hot topic in Europe

Buyers are taking responsibility for the effects of their purchasing behaviour on the people involved in their supply chain and the environment. Moreover, they protect their own business interests by improving the long-term sustainability of their supply chains.

In 2015, a group of leading companies in the vanilla industry established the Sustainable Vanilla Initiative (SVI). SVI currently has 20 members, which represent over 70% of global vanilla bean purchases, and has initially focused on collaboration with Madagascar. To illustrate, flavouring manufacturer Firmenich (Switzerland) established an agreement with its supplier Uvan (Uganda) to share the mutual benefits of their cooperation.

In general, buyers often offer social services (e.g. testing for HIV) and technical assistance (e.g. advice on harvesting) in addition to guaranteed market access at sustainable prices. In this respect, sustainability implies that the production is profitable for the farmers and encourages them to continue production. In return for their offer, buyers frequently ask for stable supplies and cooperation in quality improvement.

In practice, payment often proves to form a major bottleneck for the establishment of sustainable trade relationships between suppliers and European buyers. European buyers are often unable to pay farmers directly and farmers are unable to supply their vanilla on credit.

## **Tips:**

Take action to improve the sustainability of your business. For example, you can reduce waste and energy use or use recycled packaging materials. Show your buyers how you improve sustainability through your promotion.

Please refer to CBI Trends for more trends on the markets for natural colours, flavours and thickeners.

# Market channels and segments Market channels

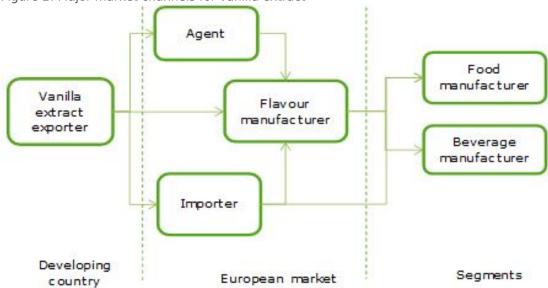


Figure 2: Major market channels for vanilla extract

The largest flavouring manufacturers, such as Firmenich (Switzerland) and Symrise (Germany), source their vanilla directly from producers at the origin and produce the extracts themselves. Contract farming is a common practice for them to reduce the impact of market volatility by securing supplies.

Smaller flavouring manufacturers and end-users continue to purchase their vanilla or vanilla extract from ingredient suppliers, such as Nielsen Massey (vanilla processor from the US with a production plant in the Netherlands), McCormick (US-based spices importer) and the larger flavouring manufacturers. They transfer the risks of market volatility to these suppliers, which need to keep stocks and take other measures to secure supplies. The ingredient suppliers also offer a one-stop shop where flavouring, food and beverage manufacturers can purchase a wide range of products.

## **Market segments**

Vanilla is widely appreciated on the European market for its versatility, hence the term "more than just a spice". Applications of vanilla extracts by the food and beverage industry are very diverse. They range from ice cream to alcoholic beverages. Dairy is a particularly important segment for vanilla and is also the major segment for organic vanilla. In Europe, fresh products such as vegetables and dairy constitute most of the market for organic products. Many consumers consider the price premium for organic beverages (non-dairy) too high compared to conventional beverages.

The high price of natural vanilla or vanilla extract compared to synthetic vanillin prices limit the application of vanilla or vanilla extract to the high-end segment of the food and beverages market.

#### Tip:

If you produce one specific type of extract (e.g. CO2 extract), there is no need to focus on a particular segment. Every type of extract can be used in many different applications.

## Competition

## Avoid competition by using terroir

Vanilla extracts with a unique "terroir" (i.e. specifications) which is distinct from other vanilla extracts are less prone to substitution. Users will not easily substitute their unique vanilla extract, as it affects the flavour profile of their end product significantly. This only applies to vanilla extracts which cannot be "copied" through the adaptation of the extraction process. The unique specifications must derive from the production conditions on the farm (i.e. terroir), such as soil composition and climate.

## Tip:

Vanilla production in countries outside the traditional production areas such as Madagascar and Indonesia may provide interesting opportunities if the vanilla or vanilla extract has unique properties.

## Limited threat from vanillin

Users of vanilla cannot easily switch to vanillin during times of scarcity. Vanilla contains many more components than vanillin and has a distinct flavour profile. The reformulation of existing end products with vanillin instead of vanilla may result in disappointed consumers and is therefore unattractive. Vanillin is primarily used for new product development. This explains why long-term market development favours vanillin. Vanillin is much cheaper and has much better availability than vanilla.

## Tip:

Attract new users of vanilla by promoting the "superior" flavour profile of vanilla extract as compared to vanillin.

#### Most competition from European companies

As a supplier of vanilla extracts to the European market, you can expect to face most competition from European and US extraction companies such as Eurovanille (France), Frey + Lau (Germany) and Nielsen Massey (US and the Netherlands). Frey + Lau recently invested in a new rectification plant which should become operational in 2018 and will improve their competitive edge.

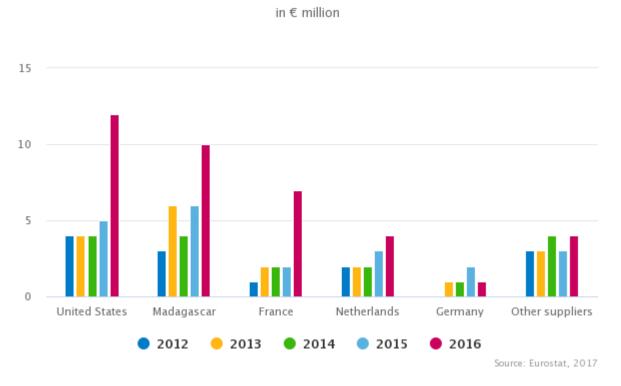
As the extraction of oleoresins and absolutes requires high-tech equipment and highly educated staff, companies in the US and particularly Europe still dominate the markets for these products.

European companies are particularly strong competitors on the market for infusions. They are in a better position to supply infusions than companies in developing countries, because they can work closely with European buyers on product development to deliver the most suitable infusion in terms of concentration. They also benefit from lower transport costs.

Madagascar is the main supplier of vanilla oleoresin outside of Europe and the US ( $\notin$  9.7 million/95 tonnes in 2016). Supplies of vanilla oleoresin or extract from other vanilla-producing countries are negligible, except for Morocco ( $\notin$  0.6 million/14 tonnes in 2016) and India ( $\notin$  0.6 million/8 tonnes). India is still one of the few developing countries with an extraction industry that is capable of producing oleoresins and absolutes. Compared to vanilla from Madagascar, Indian vanilla contains less vanillin, which gives Madagascar a competitive advantage.

Mexico is an emerging supplier. Vanilla was originally discovered in Mexico by European explorers and then brought to other countries such as Madagascar. Currently, Mexico is replanting vanilla for exports, which are mostly destined for the USA.

Imports of infusions from developing countries are negligible as the shipment of ethanol, the main constituent of infusions, is economically unattractive.



## Figure 3: Suppliers of vanilla oleoresin 2012-2016

The strong increase in value of vanilla oleoresin imports between 2012 and 2016 was largely the result of an increase in prices. Refer to the subsection on Price developments for detailed information.

#### Buyers prefer not to switch

European end-users of vanilla extracts aim to manufacture products with a highly consistent quality. This consistency adds to their brand's reputation, which stimulates repeat purchases by consumers. In order to manufacture a consistent quality, they also need ingredients with a very consistent quality. Vanilla has a particularly high impact on flavour profiles.

As a result, buyers are reluctant to switch between suppliers, as specifications of suppliers generally differ significantly.

#### Tip:

Respond to buyer requirements for quality consistency by applying strict grading standards and maximising the control of extraction processes to prevent quality differentiation between batches.

# 6. What are the end-market prices for vanilla extracts?

## **Price developments**

Prices of vanilla or vanilla extract fluctuate a lot and these fluctuations are often cyclical: when prices are high, new producers enter the market and vanilla supplies increase. This increase in supplies, which generally takes a few years, leads to lower prices and causes some suppliers to leave the market again.

This price cycle can be illustrated with the price developments of the last decade. In the period 2001–2004, when much of the crops in Madagascar were destroyed by hurricanes, prices skyrocketed to over  $\notin$  400/kg. As the market recovered, former vanilla farmers returned to the market and new vanilla farmers identified an opportunity to benefit from the high prices. In addition, Indian farmers entered the market as well. This caused price decreases until prices bottomed out at  $\notin$  15/kg in 2007.

As many farmers left the market, prices slowly increased again to  $\notin$  4 /kg in 2014. More recently, price levels skyrocketed again to  $\notin$  500/kg for beans and over  $\notin$  10,000/kg for extracts after a drought (2016) and a cyclone (2017) hit Madagascar. The increasing demand from China further adds to the current upward trend in vanilla prices.

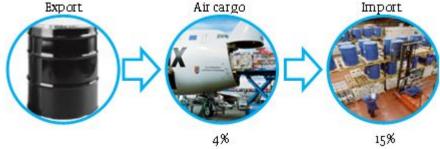
#### **Tips:**

Anticipate price developments by monitoring crop outlooks for Madagascar. Madagascar dominates the market and determines the global market price of vanilla.

If you enter the market when prices are historically high, beware that prices may fall. This cyclical trend is typical for the vanilla market.

#### **Price breakdown**

Figure 4: Price breakdown for vanilla oleoresin, in markup %



Source: ProFound, 2015

If agents are involved, they typically receive a commission of a few per cent. However, their actual profit margin strongly depends on volumes sold and gross margin. They will normally lower their gross margins for large volumes.

Flavouring manufacturers add up to a few hundred per cent depending on their activities, such as R&D and blending.

Distributors can add as much as 60% to the value of the product when the orders are very small (<5 kg).

Speculation strongly influences the margins of intermediaries. Market tightness forces them to reduce their margins, as they cannot completely forward price increases to their buyers.

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