CBI Product Factsheet:

Vanilla extracts in Europe
**Introduction**

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

**Product definition**

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 suppliers 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 CBI factsheet 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 (10x fold and 20x fold).
- **Absolute**: The most concentrated form of vanilla. There are 2 methods to extract the absolute:
  - Extraction with a hydrocarbon solvent such as hexane.
  - CO₂ extraction results in an oleoresin with a very wide range of components and no 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 source.

You can find more information on vanilla raw material in CBI’s Product Factsheets on Vanilla.

**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 8024-06-4, 8047-24-3, 8023-78-7, or 84650-63-5 amongst others

**Product specifications**

**Quality:**

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), grades of the vanilla beans and the extraction method influence the composition of vanilla extract.

Some buyers prefer CO₂ extracts over alcohol extracts, because alcohol extraction can lead to off-tastes.

High temperatures during extraction are a common cause for 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:

- Enable 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
  - If 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 of a German importer:

![Cardamom Oil Label](image)

Packaging:

- Ensure preservation of quality by:
  - Using clean food grade containers as required by EU 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 Classification, Labelling and Packaging Regulation
- Enable re-use or recycling of packaging materials by, for example, using containers of recyclable material (e.g. metal)
Buyer requirements

What legal requirements must my product comply with?

**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 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 will register it in the EU’s Rapid Alert System for Food and Feed.

**Tips:**
- Search in the EU’s [Rapid Alert System for Food and Feed](https://www.rasff.eu/) (RASFF) database to see examples of withdrawals from the market and the reasons behind these withdrawals.
- Read more about HACCP and health control in the [EU Export Helpdesk](https://ec.europa.eu/trade/policies/export-helplines/

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

**Tip:**
- 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](https://ec.europa.eu/food/plants/pesticides/pesticides_en) to find out which pesticides are allowed.
  - Safeguard hygiene in your facilities.
  - Pay attention to drying and storage to minimise microbiological contamination.
  - Apply solvent extraction to further reduce microbiological activity.

**Extraction solvents:** There are EU rules for the marketing and application of extraction solvents used in the production of foodstuffs and food ingredients.
What 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. Particularly 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.

**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.

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

**Representative samples:** Your sampling method should result in lot samples that represent what you can deliver in the quantities, 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.

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

**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
- Etc.

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

**Tip:**
- Implement a Code of Conduct. Find out if there is a Code of Conduct for your sector or if 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.

**What are the requirements for niche markets?**

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

![Certified sustainable](image)

**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 requirements in EU legislation 834/2007. Read more on the EU legislation on organic production in the EU Export Helpdesk.
- Consider OHSAS: 18001 certification for occupational health and safety or SA 8000 certification for social conditions.
- Visit the ITC’s Standards Map for more information on certification schemes for sustainable production.

**Trade and Macro-economic statistics**

**Figure 1:** European imports of vanilla oleoresin, in € million

![Graph 1](image)

**Figure 2:** European suppliers of vanilla oleoresin, in € million

![Graph 2](image)

*Source: Eurostat, 2015*

**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 CBI’s Product Factsheets on vanilla for detailed trade data.
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.

According to Eurostat data, Madagascar also supplies significant amounts of vanilla oleoresin to Europe (€ 3.7 million / 29 tonnes in 2014). However, the high volume and low average value of these supplies suggests that extracts other than oleoresins have been included in these figures.

Vanilla oleoresin or extract supplies from other vanilla producing countries are negligible, except for Morocco (€ 0.7 million / 29 tonnes in 2014), Mexico (€ 0.2 million / 3 tonnes) and India (€ 0.2 million / 2 tonnes). India is still one of the few developing countries with an extraction industry that is capable of producing oleoresins and absolutes.

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.

The strong increase in imports of vanilla oleoresin between 2010 and 2014 was largely the result of better availability of vanilla in the main supplying countries, such as Madagascar.

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

In 2013, production of vanilla in secondary markets such as Uganda and India did not increase as fast as expected. This was partly due to low price levels as compared to 2001-2004, which discouraged farmers in those countries to produce vanilla. At least in the short term, Madagascar will continue to dominate European supplies.

**Export**

France re-exports a lot of raw vanilla, but also extracts to other European countries. In 2014, French oleoresin exports amounted to € 4.2 million / 77 tonnes. Please refer to CBI’s Product Factsheets on vanilla for details on raw vanilla exports.

In 2014, German and Dutch exports of vanilla oleoresin amounted to € 8.9 million / 186 tonnes and € 2.1 million / 94 tonnes respectively.

**Industrial demand**

Demand in Europe remains strong, as vanilla (extract) is a very 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 produce vanilla pods. Production registered by European statistics agencies only represents production in some of the French and Portuguese overseas territories (e.g. Reunion). The European mainland is completely reliant on imports.

The large share (50%) of intra-EU trade in 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.

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

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

Please refer to CBI Trade statistics for natural colours, flavours and thickeners for more trade statistics on a more general sector level.

**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. Securing vanilla supplies has high priority and for
that 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:** 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.

Several large buyers in Europe, such as Firmenich (Switzerland), have established agreements with suppliers, such as Uvan (Uganda), to share the mutual benefits of their cooperation. 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 on quality improvement.

In practice, payment often proves to form a major bottleneck for 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 sustainability of your business. For example, you can reduce waste and energy use and use recycled packaging materials. Show your buyers how you improve sustainability through your promotion.
- Please refer to [CBI Trends](#) for more trends in the natural colours, flavours and thickeners markets.

**Market channels and segments**

**Market channels**

**Figure 3: Major market channels for vanilla extract**

The biggest flavouring manufacturers, such as Firmenich (Switzerland) and Symrise (Germany) source their vanilla directly from producers at 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 (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 bigger 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 (extract) compared to synthetic vanillin prices limit application of vanilla (extract) to the high end segment of the food and beverages market.

**Tips:**
- 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.
- Please refer to [CBI Market Channels and Segments](#) for more information on market channels and segments in the natural colours, flavours and thickeners market.

Price
Price development
Vanilla (extract) prices fluctuate a lot and these fluctuations are often cyclic: 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 this causes some suppliers to leave the market again.

This price cycle can be illustrated with 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 € 400 /kg. As the market recovered, former vanilla farmers returned to the market and new vanilla farmers identified an opportunity to benefit from high the prices. This caused prices decreases and in 2007 prices bottomed out at € 15 /kg. As many farmers left the market, prices slowly increased again to current levels of around € 45 /kg.

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 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, mark-ups in %**

- If agents are involved, they typically receive a commission of a few percent. However, their actual profit margin strongly depends on volumes sold and gross margin. They will normally lower their gross margins for big volumes.
- Flavouring manufacturers add up to a few hundred percent depending on their activities, such as R&D and blending.
- Distributors can add up to 60% to the value of the product when the orders are very small (<5kg).
- Speculation strongly influences margins of intermediaries. Market tightness forces them to reduce their margins, as they cannot completely forward price increases to their buyers.
Competition

**Avoid competition using terroir:** Vanilla extracts with a unique 'terroir' (i.e. specifications) 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 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 (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. 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 is in favour of 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, compared to vanillin.

**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. Particularly vanilla has a high impact on flavour profiles. Therefore, buyers are reluctant to switch between suppliers, as specifications of suppliers generally differ significantly.

**Tip:**
- Respond to buyer requirements regarding quality consistency by applying strict grading standards and maximising control of extraction processes to prevent quality differentiation between batches.

Main sources

**Trade fairs**
- Anuga ([http://www.anuqa.com](http://www.anuqa.com))
- Alimentaria ([http://www.alimentaria-bcn.com](http://www.alimentaria-bcn.com))

More information
