



CBI
Ministry of Foreign Affairs

CBI Product Factsheet:

Waxes for cosmetics in Europe

Introduction

The growth in the demand for natural cosmetics creates opportunities for producers and exporters of natural waxes in developing countries (DCs). Cosmetics producers are interested in new waxes as well as established ones. Waxes are one of the most extensively used product groups in various industries and are employed in a wide range of cosmetic products.

Product description

Waxes are organic compounds that typically exist of long alkyl chains.

Waxes are often insoluble in water, but soluble in organic, non-polar solvents. They typically melt at temperatures above 45 °C, when they change into a low viscosity liquid.

Waxes can be of mineral, natural and synthetic origin. The most common mineral waxes are petroleum-derived (paraffin) waxes, consisting of hydrocarbons. Natural waxes are esters of fatty acids and long chain alcohols, whereas synthetic waxes are long-chain hydrocarbons.

The focus of this product factsheet is on natural waxes of both animal (beeswax) and plant (e.g. Carnauba wax) origin. Established waxes, such as beeswax, Carnauba wax and candelilla wax, and new waxes, such as floral and fruit waxes (Jasmine grandiflorum floral wax or apple peel wax) will all be discussed. Vegetable waxes can be wild-harvested (Carnauba wax). In addition, various vegetable oils can be hydrogenated to create a wax (soy wax).

Waxes are used in different industries and products. They are predominately used in candles, but also find important applications in food, cosmetics and pharmaceutical industries as thickeners/emulsifiers. They also have industrial uses. Beeswax and Candelilla wax are the most common types of wax used in cosmetics.

Classifications of waxes:

- Harmonised System (HS): within the European Union (EU) and the European Free Trade Association (EFTA)¹, separate HS codes for vegetable waxes and beeswax exist:
 - 1521.10: Vegetable waxes, whether or not refined or coloured (excluding triglycerides)
 - 1521.90: beeswax
- [Cosinq](#), the European Commission database with information on cosmetic substances and ingredients lists different waxes under their INCI names and CAS numbers, with an indication of their properties. See the examples in Table 1.

Table 1: Classification of some natural vegetable waxes

Trade name	INCI name	CAS numbers	Functions
Beeswax	Cera Alba	8012-89-3	Emollient, emulsifying, film forming, perfuming
Carnauba wax	Copernicia Cerifera (Carnauba) Wax	8015-86-9	Depilatory
Apple wax	Pyrus Malus Peel Cera	225234-37-7 85251-63-4	Skin conditioning
Candelilla wax	Euphorbia Cerifera Cera	8006-44-8	Astringent, emulsion stabilising, film forming, perfuming, skin conditioning, viscosity controlling

Source: [Cosinq database](#)

Quality

- The two most important quality determinants for waxes are purity and composition. Cosmetics manufacturers require waxes with a minimum of impurities such as pesticides or herbicides. Vegetable waxes commonly consist of typical mixtures of unesterified hydrocarbons. These mixtures are usually softer and have lower melting points than the individual components of the wax. Wax composition depends on the botanical source and geographical location.
- The quality and properties of a wax largely determines for which application it is used. Technical applications, such as coatings, candles and detergents, only require low-quality waxes whereas food applications require high-quality waxes that are free from harmful substances.

¹ Member States of EFTA are Iceland, Liechtenstein, Norway and Switzerland.

- Testing (by accredited laboratories) is required to produce a product specification that includes the composition of the wax, its melting point and possible applications.
- The quality of wax can be measured by looking at the colour of the wax: a dark colour can indicate that the wax is contaminated. Beeswax that has been inadequately cleaned or heated in certain metal vessels, for instance, has a darker colour and has thus been contaminated. Overheating of beeswax leads to degradation and loss of hydrocarbons, thus changing the wax's composition.
- The quality standards for the cosmetic use of wax differ from those that apply in other industries, such as the candle making and the food industry. For example, beeswax for cosmetic products needs to be of high quality, meaning that it is not overheated, pure, and free from propolis. Propolis is a resinous mixture that bees collect from botanical sources and use to seal undesirable open spaces in the honeycomb.
- Most cosmetic users of wax prefer it to be odourless. Buyers are less interested in the scent of the specific wax, with the exception of beeswax.

Tips:

- Keep facilities and equipment clean to ensure that your waxes contain the lowest possible level of impurities such as pesticides or herbicides.
- Prevent adulteration and contamination by foreign matter (e.g. hydrocarbons) to preserve your reputation. Importers regularly analyse products for adulteration and contamination.
- Work together with a local university department or laboratory to test (new) waxes. They can help determine the chemical profile of the wax to be included in your product documentation.
- If you are offering new waxes, make sure you can deliver them in sufficient quantities as the availability of such products is of particular concern to EU buyers.
- Conduct a feasibility study to determine whether new, not yet established waxes, have sufficient potential in the market, looking into their functionality, safety and market opportunities (also based on price and availability).
- Be aware that new waxes need further scientific testing before European buyers can sell the product.
- Use the extraction method (temperature, pressure, time) consistent with the buyer's preferences and specifications.
- Always ensure that you can offer a standardised product with a well-defined specification. Standardise your product's quality by closely monitoring cultivation and harvesting practices and by blending waxes from different crops (e.g. early and late crops, or different slopes/areas). Make sure that the waxes you blend are of sufficient quality.

Labelling

- Facilitate the traceability of individual batches with markings and a registration system, whether they are produced by blending or not.
- Use the English language for labelling unless your buyer has indicated otherwise.
- Labels must include the following:
 - Product name/INCI name
 - Batch code
 - Place of origin
 - Name and address of exporter
 - Date of manufacture
 - Best before date
 - Net weight
 - Recommended storage conditions
- **Organic and/or fair trade:** Name/code of the inspection body and certification number.
- Ensure the buyer can access the following documentation:
 - Technical Data Sheet (TDS) or Specification, including a CAS number. Check this example of a [TDS of sachal inchi oil](#). Technical Data Sheet (TDS) or Specification, including CAS number. For new waxes, exporters will need to [apply](#) for a CAS number.
 - Certificates of analysis to support the claims in the specification, check this example of a [certificate of analysis of Almond oil](#)
 - Safety data sheet (SDS), check this example of an [SDS for beeswax](#)
 - GMO certificate (if requested)
 - Certificate of origin
 - Product information sheet, check this example for [crude rice bran oil](#)
- Refer to [CBI Buyer Requirements](#) for information on classification, labelling and packaging (CLP).

Packaging

- Always consult with your buyer for specific packaging requirements. For example, buyers of crude beeswax generally prefer to receive blocks of beeswax not covered in jute or polyethylene bags.
- If your wax is hazardous and has a UN number, use UN approved packaging
- Ensure the preservation of the quality of waxes by:
 - Using containers of a material that does not react with constituents of the wax (e.g. lacquered or lined steel, aluminium).
 - Cleaning and drying the containers before filling them with wax.
 - Filling the headspace in the container with a gas that does not react with constituents of the wax (e.g. nitrogen or carbon dioxide).
- Facilitate the re-use or recycling of packaging materials by, for example, using containers of recyclable material (e.g. metal).
- Store the containers in a dry, cool place to prevent quality deterioration.
- Organic waxes should remain physically separated from conventional waxes.
- Refer to [CBI Buyer Requirements](#) for information on classification, labelling and packaging (CLP).

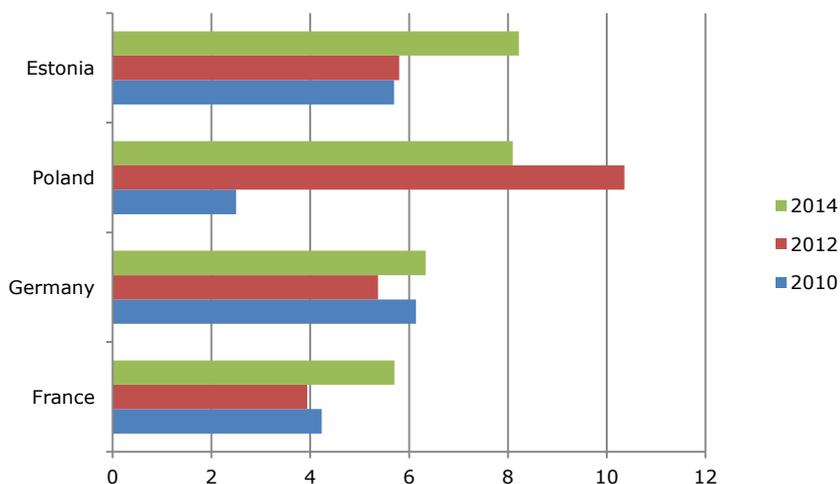
What is the demand for waxes in Europe?

(!) Trade statistics included in this segment are on 'vegetable waxes, whether or not refined or coloured' and 'beeswax'.

(!!) In addition, please note that most waxes are not only imported for cosmetic use, but also, and in many cases predominately, for food. Therefore, care should be taken when drawing conclusions based on the figures below with respect to the imports of cosmetic ingredients.

Imports

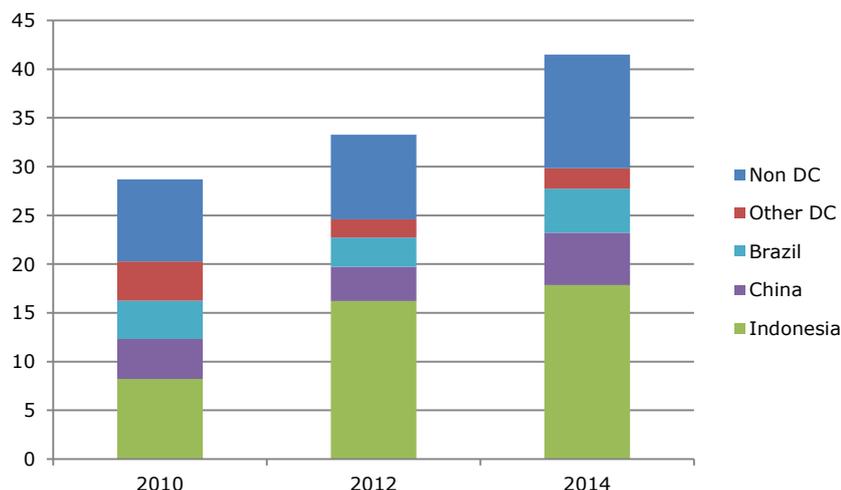
Figure 1: Leading European importers of waxes, in 1,000 tonnes



Source: Eurostat, 2015

Europe (EU + EFTA) imported close to 42 thousand tonnes of vegetable waxes, with a value of € 113 million in 2014. The volume of imports rose by an average 10% per annum between 2010 and 2014, while their value rose by an average 11% per annum over the same period. This indicates that the import unit price remained relatively stable. However, the price of imported vegetable waxes in some countries with the highest level of imports such as Estonia, Germany and France.

Figure 2: Leading suppliers of waxes, in 1,000 tonnes*



* DC: developing countries

Source: Eurostat, 2015

Developing countries exported quite large quantities of wax to Europe compared with most vegetable oils, this proportion reaching 72% by volume in 2014. Leading DC suppliers of waxes are shown in Figure 2. Of these, Indonesia experienced the fastest growth between 2010 and 2014 (an average +21% per annum), followed by China (+7%) and Brazil (+4%). It is assumed that these imports were mainly palm wax from Indonesia, Carnauba wax from Brazil and beeswax from China.

Tip:

- Consider analysing the export data of countries that produce similar or competing waxes to find competitors and export markets for your products. In many cases, there are more (specific) export statistics available from local statistics offices. You could, for example, check the websites of the Department of Commerce in the respective countries.

The leading importers of waxes from developing countries are Estonia and Poland. These countries' share of total European imports from developing countries was between 25% and 28% by volume, but only 8-9% by value. This implies that these countries import mainly low-priced waxes from developing countries. Of these two countries, Poland experienced the highest growth of imports (an average +35% per annum). This could be a result of the increasing cosmetic production in Poland, as cosmetic production is moving to Eastern Europe. However, most waxes are used in various other industries in Eastern Europe too.

Tip:

- Focus your exports on leading and emerging importers of waxes from developing countries, such as Poland and Estonia.

The only natural wax produced commercially in Europe is beeswax. Demand for other natural waxes is met by imports. Around 30-40 % of the world trade in beeswax is used for cosmetic industries.

The markets of vegetable and insect waxes are relatively small compared to mineral waxes such as paraffin wax (a few million tonnes per year). Beeswax and Carnauba wax have markets of up to tens of thousands of tonnes, whereas waxes such as candelilla wax and Japan wax have markets from several dozen up to 1,000 tonnes.

The global supply of waxes is made up of paraffin waxes (73%), synthetic waxes (13%) and animal and vegetable waxes (4%). It is likely that the difference is made up by hydrogenated oils such as sunflower oil.

Tips:

- Keep a close watch on the production of other natural waxes. You may request such information from your buyers. As several waxes can be used interchangeably, these can become competitors for your wax.
- Moreover, be mindful of the production of mineral and synthetic waxes, as these are often priced more competitively than natural waxes.

Exports

On the whole, European exports of waxes in volume were stable from 2010 to 2014, amounting to 6.5 thousand tonnes (with a value of € 39 million) in 2014. However, exports in 2012 were appreciably higher (9 thousand tonnes). The value of these exports rose even faster from 2010 to 2012, but dropped again between 2012 and 2014. Over the whole period from 2010 to 2014, the value of the exports rose by an average 8% annually.

Germany and France are the main processors and re-exporters of waxes; together they exported 57 % of the total exported volume of waxes. The Netherlands is also an important exporter, even though Dutch exports fell appreciably from 2012 to 2014.

Tip:

- Refer to [CBI Trade Statistics for natural ingredients for cosmetics](#) for more trade statistics.

What trends offer opportunities on the European market for waxes?**Anti-aging trend:**

anti-aging remains a dominant trend in cosmetics. Waxes are used as thickeners or emulsifiers in various types of anti-aging creams.

Tips:

- Investigate the potential of waxes for use in anti-ageing cosmetics by such means as sample surveys and consumer panels, or by efficacy trials performed by an accredited laboratory. Be aware that you are not allowed to claim health benefits for your wax.
- Emphasise in your promotional materials the way your waxes can support your buyers' marketing activities and their potential for use in anti-aging products on the basis of your tests.

Alternative waxes:

the development of synthetic alternatives, which have lower costs, puts pressure on natural waxes. In addition, lower-priced mineral waxes are used in cosmetics.

Natural ingredients:

in Europe, consumer interest in natural ingredients in cosmetics is increasing. Global sales of natural cosmetics are close to \$30 billion (€22.3 billion), having risen by 10.6% in 2013, according to market research conducted by the Kline Group ([Cosmetics Design Europe, 2014](#)). Waxes can be used in natural cosmetics, as they are natural ingredients.

Tip:

- Focus on the natural aspect of your waxes in your promotional materials. When producers of natural cosmetics replace chemical waxes with natural alternatives, they can increase the attractiveness of their products.

Exotic ingredients:

the ongoing consumer interest in speciality exotic ingredients forms an opportunity for both new and established waxes that have "exotic", "mystical" or luxury connotations. Examples include Carnauba wax from Brazil, candelilla wax from Mexico and floral waxes. A key consideration for these waxes is availability.

- Tip:
- When your waxes can be considered to be exotic, focus your promotion on consumer perceptions of exotic ingredients, or on their exotic origin. For example in terms of storytelling about the product's origins.

Traditional:

in addition to the increasing popularity of exotic waxes, traditional products are also gaining ground. This consumer segment is interested in traditional products with a simple, artisanal character. For example, beeswax is becoming increasingly popular as a local, well-known ingredient in cosmetic products like soap.

Tip:

- If you produce waxes that can be marketed to the traditional waxes segment, such as beeswax, emphasise the artisanal character of the wax.

Ethical products:

a growing interest in ethically sourced products provides an opportunity for new and established fair trade and organically certified waxes. In addition, consumers are interested in the story behind ethical certification. In their marketing, cosmetics producers actively communicate the best stories for their ingredients to improve the connection with the consumer. Communication takes place using images, with short stories about the product, or using the producer's corporate image.

Tips:

- Check your opportunities for obtaining certification for ethical sourcing. Refer to the section on market segments for more information.
- In addition to certification, focus on the story behind your wax and highlight the ethical credentials of the supply chain in your promotional material. Also emphasise the social benefits of your production to local communities. It is an advantage to help cosmetics producers communicate these stories, for example by providing pictures.
- Refer to [CBI Trends for Vegetable Oils](#) for more market trends.

What requirements should waxes comply with to be allowed on the European market?

EU Cosmetics Regulation:

Cosmetics Regulation include requirements (physical-chemical, microbiological and toxicological) for substances/ingredients to be included in each 'Cosmetic Product Safety Report' and 'Product Information File'. Cosmetic manufacturers and ingredient producers are increasingly making compliance with this regulation the responsibility of their suppliers.

Tips:

- Check with your buyers what information they require and in what format. For new waxes documentation on the toxicological profile will be expected, including local toxicity (e.g. skin and eye irritation).
- Comply with relevant legislation. Read more about the [Marketing conditions for cosmetic products](#) and the Cosmetics Regulation on the EU Export Helpdesk.
- Refer to the [CBI Buyer Requirements module](#) for a full list of requirements for cosmetic ingredients.

REACH:

In principle, ingredients used in cosmetics are bound to legislation on chemical substances. Therefore, they need to be registered with the European Chemicals Agency under REACH (Registration Evaluation and Authorisation of Chemicals) legislation. Certain exemptions from REACH registration exist, such as non-chemically modified vegetable oils and waxes. Moreover, if volumes remain lower than 1 tonne per importer, registration is not required. In all cases, the burden of proof lies with the EU manufacturer/importer that wishes to use this exemption (an absence of information on the properties of a substance does not mean an absence of hazardous properties).

Tips:

- Familiarise yourself with [REACH regulation](#), annexes IV and V list details of exemptions from registration. The European Chemicals Agency (ECHA) offers [guidance on exemptions](#).
- Check the REACH [registration status](#) of your cosmetic ingredient. If your product is not registered, it may need to be (subject to exemption status). REACH registration is an expensive procedure and must be initiated by European manufacturers, EU importers or by an Only Representative of a non-EU manufacturer (hazardous chemicals imported or manufactured in the highest volumes have to be registered as a priority).

Classification, Labelling and Packaging of chemicals (CLP):

The EU sets requirements on the packaging of chemical substances, as well as required symbols and phrases warning users and providing safety advice that should be used on the labels. These requirements have been adopted from the United Nations' [Globally Harmonised Systems](#) (GHS).

Tips:

- Refer to the website of the ECHA, which includes a [database on classification and labelling](#). You can use this database to determine which symbols and warning phrases apply to your product. Additionally, you can access information on CLP through the [European Chemical Substances Information System \(ESIS\)](#).
- Refer to the EU Export helpdesk for more information on [REACH and CLP](#).

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):

CITES regulates the trade in (among other things) wild-collected endangered plants and gives a detailed list of species for which trade is prohibited, restricted or bound to certain rules. If your wax is listed on Annex A and B of Regulation (EC) 338/97 you need to obtain export and import permits before you can export it. Candellila is listed on CITES appendix II.

Tip:

- Check in the [Annexes](#) whether import and export permits are required for your product. Another resource is the [Cites Checklist](#). You can also contact your local CITES authority for more information. For more information on the requirements and procedures of CITES in Europe, refer to the information on [CITES](#) from the EU Export Helpdesk.

Access and Benefit Sharing (ABS):

ABS refers to the rules and principles governing the use of genetic resources and associated traditional knowledge, established by the [Convention on Biological Diversity](#). Countries regulate access to genetic resources in different ways and requirements can be quite stringent, either in terms of reaching "prior informed consent" with governments or in terms of how benefits (financial, knowledge) are shared. These "mutually agreed terms" detail the terms and conditions of access and use of genetic resources and/or traditional knowledge between the company seeking plant material for research and development, and the collectors, growers, or associations that would be able to supply such material. The Union for Ethical Bio Trade ([UEBT](#)) provides much information on the practical implications of ABS.

Tip:

- Put a procedure in place to check whether ABS applies to your wax.

Quality:

European buyers expect a good, reliable level of quality. Most of them expect suppliers to follow the Hazard Analysis & Critical Control Points (HACCP) principles for food processing as a minimum. The following requirements are also often referred to.

- Good Manufacturing Practices (GMP) are not obligatory for cosmetic ingredient producers, but compliance can provide a competitive advantage.
- Good Agricultural and Collection Practices (GACP), even though legally binding for medicinal plants, are common practice for farming and wild collection of cosmetic ingredients, prior to processing.
- Quality standards such as [ISO](#) are referred to in buyers' product specifications, to assure the quality of cosmetic ingredients. ISO22716 is a good reference. Even though it is intended for finished cosmetic, it also includes guidelines for ingredients that manufacturers need to refer to.

- Buyers will also have their own requirements.

Tips:

- At the very least, follow [HACCP](#) principles.
- Ascertain whether you can help your buyer comply with GMP principles for producers of cosmetics. This may give you a competitive advantage. The [guide](#) developed by the European Federation for Cosmetic Ingredients (EFFCI) gives a detailed explanation of these principles.
- Comply with the World Health Organisation's GACP guidelines, even though they are only legally binding for medicinal plants. Compliance gives you a competitive advantage from a marketing perspective.

Sustainability:

European buyers prefer suppliers that can demonstrate good standards in sustainability. This involves social and environmental responsibility as well as sustainable sourcing practices. Buyers may not require compliance with certification standards to prove sustainability. However, they are looking for suppliers who demonstrate that they have incorporated sustainability into their operations.

Tips:

- Assess your performance in terms of sustainability with regard to sourcing, social and environmental responsibility. Demonstrate to your buyers how you have incorporated sustainability into your operations.
- Prepare and publish a code of conduct that defines your social and environmental responsibility as an employer and supplier. For more information on responsible business practices, use the online database of [the Supplier Ethical Data EXchange \(SEDEX\)](#) as an example, where members can share information on ethical and responsible practices.

Documentation:

Buyers need well-structured product and company documentation. Buyers generally require detailed specifications supported by certificates of analysis and Safety Data Sheets (SDS). Documentation should include information on allergens. Compared to essential oils, allergen declaration for vegetable oils and waxes is more straightforward. Allergenic properties of vegetable oils and waxes are related to their protein content. If there is no detectable protein then the allergen risk is very low. Buyers will set their own standards for protein content in vegetable oils and waxes.

Tips:

- Specify the protein content of your wax clearly in your product documentation.
- Create a commercially oriented Product Data Sheet for your buyers, with photos, information on origin and bibliographic references, where available. For your own internal purposes, prepare a more detailed dossier with all the technical data from both primary and secondary research.
- Consider seeking qualified advice in preparing an SDS. Check websites of European companies for examples of an SDS, e.g. [The Soap Kitchen](#).

Additional requirements**Natural cosmetics:**

In cosmetics, the definition of natural cosmetics has been driven by private sector standards, specifically [NaTrue](#) and [Cosmos](#). These specify what cosmetic products need to comply with to be certified natural and organic. Often, natural cosmetics are defined as having a certain amount of natural ingredients. Although not directly applicable to ingredient producers, it is important to be aware of these standards in terms of permitted processes and additives.

Organic:

[EU legislation](#) specifies what organic production and labelling entails. This legislation is only applicable to food products, but forms the basis of private standards for organic labelling. Examples of such standards are [Soil Association](#) (UK), [Ecocert](#) (France) and [BDIH](#) (Germany).

Tip:

- For more information on the market opportunities for organically certified ingredients, see [Market Trends](#) above.

Fair production:

Several standards exist to certify socially sustainable production of natural ingredients for cosmetics. Examples of consumer labels that guarantee fair social practices include [Fairtrade](#) and [FairWild](#) (wild-collected ingredients).

Tips:

- Refer to the [ITC Standards map database](#) for more information on different voluntary standards and their requirements, including organic and fair production.
- For more information on the market opportunities for social sustainably certified ingredients, see [Market Trends](#) above.

What competition do I face on the European market for waxes?

Market entry – established waxes

- Some waxes such as beeswax, candelilla wax and Carnuba wax are traded in quite large volumes and constitute an established market. Access to such markets as a new supplier can be difficult because of strong competition from existing suppliers. Prices in these segments are influenced by global production and demand.
- The technological barriers for entry to the market depend on the production process required to produce good-quality wax. In general, vegetable waxes such as candelilla wax are obtained from plants either by scraping them off the leaves or by boiling parts of the plant in water (with or without acids). The technological barriers to market entry and investments required for production of these waxes are thus relatively low.
- Wax melting installations may require significant investment. These installations are used in the processing of a number of certain waxes, for example for separating beeswax from honeycombs.
- European buyers are looking for reliable suppliers who can deliver consistent quality and quantity. This is particularly important in the case of waxes derived from wild-collected materials. Use of sustainable resource management methods in the collection process is one way of achieving this aim.

Tips:

- Use sustainable harvesting practices, this is especially important when your wax is derived from wild-harvested materials, as in the case of candelilla and Carnuba wax. You may wish to examine the possibility of [FairWild](#) certification, but discuss with your buyers whether they consider certification to be important before you apply for it.
- Determine which production and extraction methods are required for the wax and what investment you need to make to implement them. If significant investment is required, you can cooperate with other wax producers to share the investment costs.
- Use the skin conditioning properties listed in the [Cosinq](#) database for small-scale and established waxes in your promotion materials. If you wish to export waxes for which there is already an established market, focus on the high quality and purity of your product, and any certifications it may possess, to stand out from the competition.

Market entry – new waxes

- The financing of marketing activities can be a barrier to the introduction of new waxes. Nevertheless, marketing – which involves preparation of appropriate promotional materials, international travel and attendance at trade fairs – is needed to let prospective buyers know about the benefits of your wax.
- When developing a new natural wax, the first step is to determine its composition and properties. After that, you need to make sure you can secure reliable supplies of the raw materials and can offer the finished wax at a competitive price and meet prospective buyers' other requirements.

Tips:

- Set aside sufficient funds for the marketing campaign for new waxes. This is a costly but essential part of your promotional activities.
- If you export new waxes, find a strong partner in the EU, such as a specialised trader or processor: successful market entry depends on this. Ensure that you can guarantee a regular supply of high-quality wax.
- If you want to export a completely new wax for use in cosmetics, you will need to make substantial investments in additional testing. Keep up to date on the research concerning similar waxes and their known properties, for example by visiting the [Cosmetics Design Europe](#) website.

Product competition

- Your wax may be at risk of substitution by and competition from other products, in particular mineral and synthetic waxes or hydrogenated vegetable oils. These waxes generally have a higher availability and lower price than vegetable waxes, and they have similar properties. The magnitude of this risk depends on the nature of your particular wax.
- Some waxes have their own distinctive characteristics, which makes substitution difficult. More importantly, if companies want to switch to another wax, for example by using carnauba wax instead of beeswax, the formulation needs to be changed. Waxes have different physical characteristics such as melting points, which need to be accounted for in the formulation. The cost of such reformulation is high and needs to be justified. The company's preferences, for example for vegan sources of wax or synthetic waxes, also play a role here. As a result, waxes are generally not at a very high risk of substitution.

Tip:

- Make sure to highlight the differences between your wax and competing waxes in your promotional material. You can for example focus on your wax's origin and ethical sourcing, or concentrate on excellence in your documentation or research supporting claims of specific properties and applications.

Company competition

- Supplies of petroleum-based waxes are in decline, making room for synthetic, hydrogenated and natural vegetable waxes to replace them. However, the low price of petroleum waxes still makes them suitable for use in various products where natural waxes may be too expensive.
- Exporters of certain natural products including absolutes (mixtures of oils extracted from flowers by means of solvents), essential oils or honey can benefit from market diversification. Producers of beeswax or floral waxes are an example of this. Beeswax is a by-product of honey production, while floral waxes such as rose or Jasmine floral wax are by-products of the creation of floral absolutes.

Tips:

- If you produce honey or flower absolutes, export the by-products of your main production process to take advantage of market diversification. You can do this without incurring additional investment costs or installing new production processes.
- Refer to [CBI Competition for Vegetable Oils](#) for more information.

What do the trade channels and market segments of interest for waxes in Europe look like?

Market channels

Please refer to the [CBI Module Market Channels and Segments for Vegetable Oils](#), which gives an overview of the market channels in vegetable oils for cosmetics together with vegetable waxes. This module also provides information on important trends in these market channels.

Waxes exported in crude form

Exports of waxes are mostly in crude form. They can undergo preliminary treatment in the country of origin, including melting, decantation and moulding. The crude wax needs to be refined before it can be used in cosmetic products. In general, this is done by the refining industry in Europe. Industry sources have found that EU importers show limited interest in letting this value addition take place in developing countries.

Crude wax is imported either directly by a refiner or through an importer or agent. In the case of beeswax, some importers of honey also import beeswax. They then have it refined by specialist refiners and sell it to the industry.

Tip:

- Benefit from the experience and knowledge of specialised European importers and agents instead of approaching end users directly. Especially for exporting, specialised products traders are the most suitable distribution channels. In addition, intermediaries buy larger quantities than end users do.

In the case of hydrogenated vegetable oils, oils are exported in crude form and processed into waxes in Europe.

Market segments

Table 1: Major cosmetic segments and applications for waxes

Segment	Sub-segment	Benefits of applying waxes
Skin care	Facial skin care, body care, lip balms, sun care, anti-aging products, lotions, sun care	Emollient and skin conditioning properties, for example candelilla wax Carnauba wax is used for its hypoallergenic properties Used as emulsifiers and thickeners, for example beeswax Waxes are used to solidify products; beeswax prevents lip balm from melting, for example Marketing potential for unusual or unique waxes
Hair care	Shampoo, conditioner, hair cream, hair-styling products	Hair conditioning properties
Toiletries	Soap, deodorants	Moisturising properties A small percentage of beeswax in soap solidifies the product, even at high temperatures
Decorative	Makeup, lipstick	Used as emulsifiers and thickeners

Best opportunities in skin care products

Waxes have most potential for use in skin care products, but they are in fact used in a wide array of cosmetic products. Which cosmetic product offers the most potential for a specific wax depends on its properties, price and exclusivity.

Tip:

- Research the specific properties of your wax. [Cosing](#) lists the properties registered for several waxes; use these in the promotional material on your product's properties.

Speciality waxes offer advantages for promotion in terms of an increased marketing potential. These waxes have similar properties to widely available waxes such as beeswax, but production is more expensive. The skin care segment offers the most potential for the use of these waxes, as consumers tend to be more willing to pay a higher price. Examples include floral waxes such as Jasmine floral wax, which is obtained from the flowers of *Jasminum grandiflorum*.

Tip:

- If you offer speciality waxes, focus on what differentiates them from cheaper, more widely available waxes. For example, emphasise their unique origin or connotations to consumers.

Established and more common waxes are also used extensively in skin care products such as creams and lotions. They are used as emulsifiers and for their skin conditioning properties. Moreover, Carnauba wax has hypoallergenic properties and can be used in products for sensitive skin.

Some waxes, such as the animal-based wax lanolin, are categorised as having specific hair conditioning properties.

In addition, waxes are used in various products in the toiletries segment. However, they are mostly used in soap products for their moisturising properties or to change the soap's texture.

Cosmetic products in the decorative segment use waxes as emulsifiers. Waxes are widely used in lipsticks and also in mascaras and liquid foundations.

There is a market for Fairtrade waxes for use in cosmetics, in line with current consumer preferences for ethical sourcing (see [Market Trends](#) above). Whether Fairtrade certification is necessary in your case will depend on your buyer's preferences.

As the market for natural and organic cosmetics grows, you can expect cosmetics manufacturers to become increasingly interested in organic ingredients. However, the decision to use organically certified waxes depends on the final products in which the ingredients will be used and on your buyer's preferences.

Tips:

- Only use green chemical methods to process organic waxes. Be aware that there are restrictions on the methods employed to process waxes intended for use in certified natural or organic cosmetics.
- If you want to obtain Fairtrade or organic certification, check the requirements of such standards under Additional Requirements above. Always discuss these opportunities with your buyers before putting them into effect.
- Refer to [Market Trends](#) above for further information on market opportunities for Fairtrade or organic waxes in cosmetics.

What are the end market prices for waxes?

Variation in prices of waxes

Average quality beeswax is priced at an estimated € 7.40-8.30 (\$ 8-9) per kg. However, there is a worldwide scarcity of high-quality, pesticide-free and low-residue beeswax. Consequently, prices for this high-quality beeswax can be much higher than for lower quality wax.

A higher priced vegetable wax is Carnauba wax (up to € 20 per kg). In comparison, paraffin wax was priced at € 1-1.10 (\$ 1.3-1.45) per kg in 2012.

Tip:

- When pricing your product, consider the maximum price the market is willing to pay for your product, plus demand, cost analysis and break-even analysis. Ensure that the price reflects the quality levels and delivery conditions.

Exporters who supply speciality waxes, such as floral waxes, especially uncommon/new, or fair trade certified waxes, have more freedom to deviate from global market prices, although the prices of competing waxes should remain a benchmark. Pricing should be based on a cost-calculation of production (being a price maker), instead of on the prices of competitors (being a price taker).

Tip:

- Calculate your production costs by using a detailed cost breakdown. Make sure to consider additional costs, such as customs, loading/unloading, marketing, samples for chemical analysis and internal transport. After the cost breakdown, add a profit to create the selling price.

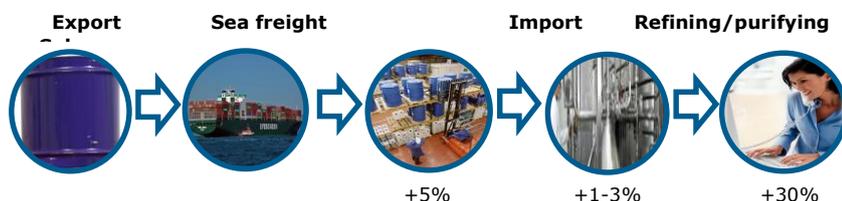
A price mark-up is attached to certified natural waxes, for example for those with organic certification. By way of illustration, it may be mentioned that industry sources indicated that organic beeswax can be priced up to € 16.50-19 (£ 11.75 - £13.25) per kg, depending on the amount purchased. Organic beeswax is in low supply, leading to increased prices.

Tip:

- Monitor harvests in major production countries to anticipate price developments for your specific wax. You may request such information from your buyers.

The following price breakdown shows which costs and margins are applied to waxes before it reaches the end user.

Figure 3: Price breakdown for waxes, mark-ups in %



Source: ProFound, 2013

Note that waxes with small production levels, such as floral waxes, are usually transported by air. In these cases, air freight can be quite considerable. Depending on the price of the specific wax, margins can add up to 25-30%.

Useful sources

Trade fairs

Visiting and especially participating in trade fairs is highly recommended as one of the most efficient methods for testing market receptivity, obtaining market information and finding prospective business partners. The most relevant trade fairs in Europe for exporters of waxes are:

- [in-cosmetics](#), a travelling trade fair
- [Beyond Beauty](#) in Paris, France
- [SANA](#) in Bologna, Italy
- [Vivaness](#) in Nuremberg, Germany (for organic producers)

More information

CBI market information: Promising EU export markets.

EU Expanding Exports Helpdesk - <http://exporthelp.europa.eu> - go to 'trade statistics'.

Eurostat - <http://epp.eurostat.ec.europa.eu/newxtweb> - statistical database of the EU. Several queries are possible. For trade, choose 'EU27 Trade Since 1995 By CN8'. Use the guide 'Understanding Eurostat: Quick guide to easy comext' (<http://epp.eurostat.ec.europa.eu/newxtweb/setuphelp.do?keepsessionkey=true>) for instructions.

International Trade Statistics - <http://www.trademap.org> - you have to register



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November 2015