Exporting palm oil alternatives to Europe

Developing country producers who can offer palm oil alternatives at a low price and high volume have opportunities to sell them on the European market. Consumers are increasingly demanding palm-oil-free cosmetic and food products, due to the negative environmental impact of palm oil production. For producers, the main challenge lies in the competition for price and volume.

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1. Product description

Palm oil and palm kernel oil are by far the most used oils in food and cosmetic industries. This high usage level is the result of both their versatility (in applications) and their low cost of production. Furthermore, large-scale industries have been established to transform these oils into the derivatives and modified fats that are used in cosmetics and foods.

The main production countries are Indonesia and Malaysia. Cultivation of high-yielding trees in large monoculture plantations in these and other countries is under increasing public scrutiny. This is mostly associated with the negative impacts on the natural environment, including deforestation, loss of natural habitats threatening endangered species, and pollution from washouts of pesticides and fertilisers.

Growing consumer awareness of these impacts is putting pressure on companies to improve current materials and to look for alternatives. Companies are doing this in several ways:

- The Roundtable on Sustainable Palm Oil (RSPO), a multi-stakeholder initiative of companies, non-governmental organisations, and governments, has developed a certificate for sustainable palm oil. Several food and cosmetics producers have started using RSPO certified oil and derivatives that comply with this (emollients, surfactants etc.).
Some companies are turning to fair trade or organically certified palm oil, but the use of these products is mostly restricted to applications as pure oil.

Other companies are looking at alternatives to palm oil, such as rapeseed oil, soybean oil, sunflower oil, olive oil, coconut oil and lesser-known palm species.

This factsheet focuses on palm oil alternatives.

Classification of palm oil alternatives:

- Harmonised System (HS): within the European Union (EU) and the European Free Trade Association (EFTA), these oils are mostly classified under:
  - 1515 90: other fixed vegetable oil and fats, refined or not, not chemically modified; as vegetable oil.
  - Alternatives such as olive, soybean and coconut oil are classified under a separate HS code.
- Cosing, the European Commission database with information on cosmetic substances and ingredients, lists alternatives to palm oil, as well as cosmetic ingredients that can be produced based on palm oil alternatives. Examples of these oils are sunflower oil (*Helianthus Annuus*) or coconut oil (*Cocos Nucifera*). Examples of functional ingredients that are listed are *Helianthus Annuus* seed oil, coconut oil polyglyceryl-6 esters (an emulsifier) and sulphated coconut oil (a surfactant).

Quality

General

The popularity of palm oil in cosmetics is a result of its price, composition and available supply. To determine whether a potential alternative to palm oil is suitable for the market, further scientific testing may be required before European manufacturers can sell the product. Some of these requirements may include studies to determine whether the ingredient has sufficient potential in the market, looking at its functionality, safety and price. When identifying these alternatives, the following should be taken into account:

- The most important indicator for a potential palm oil alternative is its fatty acid composition. Compare the composition of possible alternatives with that of palm oil. Palm oil consists of palmitic acid (44-45%), oleic acid (39-40%) and linoleic acid (10-11%).
- For alternatives to palm oil, the melting point needs to be close to that of palm oil (which is between 33.8 - 39.1°C). This relatively high melting point facilitates its application in a large variety of products. Depending on the final application, different buyers prefer different melting points. It is also more stable than many other oils.
- In addition, the solid fat content (SFC) of the alternatives must be determined. SFC affects the suitability of oils and fats for a particular application. The SFC of palm oil is commonly around 63% at 5°C, 50% at 10°C, 37% at 15°C, 21% at 20°C, 11% at 25°C, 8.6% at 30°C, 2.6% at 35°C and 0.8% at 40°C.
- Testing is needed to produce a product specification that includes the melting point, solid fat content and fatty acid composition mentioned above. In addition, the acid value, iodine value, and peroxide and moisture content must also be included. This information is very important to buyers and should be part of your Product Factsheet and specifications.
- New palm oil alternatives derived from potential allergenic products, such as nuts, should be tested to determine if they are allergenic.

Tips:

- Work together with a local university department to test your palm oil alternative. They can help determine the chemical profile, melting point and SFC of the oil to be included in your product documentation. They can also check for allergic properties.
- Conduct a feasibility study to determine whether your palm oil alternative has sufficient potential in the market, looking at its functionality, safety and market opportunities including product applications. For this, it is vital to consider prices and recommended...
usage levels in formulations compared to palm oil and other palm oil alternatives. Producing trial runs of cosmetic products using your oil could also be of interest to buyers.

Quality requirements:

- Importers of oils test for possible adulteration of the product. Cosmetics manufacturers need oils with a minimum of impurities (e.g. mineral matter, gums and carbohydrate substances, such as vegetable fibres, and protein). You can apply various refining methods, such as degumming and filtration, to reduce impurities, or work with a (European) toll refiner.
- Palm oil is relatively resistant to oxidative deterioration, due to its low levels of linoleic and linolenic acids and high level of monounsaturated fatty acids. However, for alternatives with higher levels of these acids, rancidity can become an issue.
- In most cases, buyers prefer odourless oil for the direct use of palm oil alternatives in cosmetic products. For the use of palm oil alternatives to produce derivatives, smell is less relevant as these will be lost during processing. Consult with your buyer on their specific preferences. Please note that in case an odourless oil is required, deodorisation will often take place in Europe, either by your buyer or by an intermediate contracted by the company.
- The colour of vegetable oils tends to be light green or yellow to light brown. Some buyers prefer a colourless oil, depending on the final application. For direct application, colourless oils are likely favoured, while for the production of derivatives colouring will not matter to such an extent as colour will be lost during processing. Consult with your buyer about their specific preferences.

Tips:

- Use the extraction method (temperature, pressure, time) consistent with your buyer’s preferences and specifications.
- Test your palm oil alternative to determine its shelf life and behaviour in cosmetic products. This can help you develop measures to improve shelf life and application by your client. Moreover, in your own production, you should implement measures to prevent oxidation (proper storage and packaging), minimise air exposure, keep the temperature during processing low and follow the packaging guidelines listed below.
- Prevent adulteration and contamination by foreign matter (e.g. dust) by keeping facilities and equipment clean. Also ensure that the oil is filtered to remove particles of press cake. Use plate and frame filters for unrefined oils, and other filter systems to achieve 2 microns or less for other uses, depending on your buyer’s specifications and downstream processing.
- 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 seeds or oils from different crops (e.g. early and late crops, or different slopes/areas).
- Minimise moisture content in the seeds by drying before pressing.

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 — check this example of a TDS of sacha inchi oil, or this example for coconut oil. For new oils, exporters will need to apply for a CAS number.
  - Certificates of analysis, to support the claims of the specification — check this example of a certificate of analysis for almond oil.
  - Safety data sheet, check this example of an SDS for organic borage oil.
  - GMO certificate (if requested)
  - Certificate of origin
  - Product information sheet
  - Allergen declaration (protein content), check this example of a declaration of argan oil.

  Especially important if you’re selling directly to a cosmetics manufacturer.

- See our study on buyer requirements for natural ingredients for cosmetics for information on classification, labelling and packaging (CLP).

### Packaging

- Always consult with your buyer for the specific packaging requirements.
- If your vegetable oil is hazardous and has a UN number, use UN approved packaging.
- Ensure the preservation of the quality of palm oil alternatives by:
  - Using containers of a material that does not react with constituents of the oil (e.g. lacquered or lined steel, aluminium).
  - Cleaning and drying the containers before filling them with oil.
  - Filling the headspace in the container with a gas that does not react with constituents of the oil (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 vegetable oils should remain physically separated from conventional vegetable oils.
- See our study on buyer requirements for natural ingredients for cosmetics for information on classification, labelling and packaging (CLP).

### 2. What is the demand for palm oil alternatives in Europe?

(!) No specific trade statistics are available for palm oil alternatives. The following trade statistics are based on HS code 1515.90, ‘other vegetable oils’, fixed vegetable fats and oils and their fractions, whether or not refined, but not chemically modified. These data exclude the main commodity products such as soy, coconut, palm, sunflower and rape.

(!!) In addition, please note that most vegetable oils are not only imported for cosmetic use, but also, and in many cases predominately, for food (est. over 60% in 2012). Therefore, care should be taken when drawing conclusions based on the figures below.

### Imports

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Imports

Figure 1: Leading European importers of vegetable oils, in 1,000 tonnes

The total volume of European imports of vegetable oils grew by an average of 7% annually from 2013 to 2017, while value grew by an average of 9% in the same period. Total imports reached 342 thousand tonnes (with a value of €784 million) in 2017. European imports of vegetable oils were quite volatile in the last five years, with the highest growth between 2013 and 2014 (+63% in volume).

Figure 1 lists the leading European importers of vegetable oils. Countries in the EU with particularly fast-growing volumes of vegetable oils’ imports in the 2013-2017 period include:

- Austria (+25% annually in volume)
- Sweden (+18%)
- Poland (+40%)
- Ireland (+52%)
- Croatia (+27%)
- Hungary (+25%)
- Estonia (+38%)

As vegetable oils are used in a wide range of industries, it is not possible to state what share of these vegetable oil imports is used specifically in cosmetics. However, according to industry sources, these are mostly high-value vegetable oils. Countries that import high-value vegetable oils include France, Germany, Italy and the United Kingdom.

Tips:

- Find potential buyers by identifying finished products on the EU market that already use vegetable oils for conditioning. For example, check the websites of organisations such as
Target countries with growing imports of vegetable oils, such as Eastern European countries.

Developing country suppliers contributed a small part of European imports in this product group, at 17% in 2017. The value of imports from developing countries grew at a higher annual rate (+10%) than that of total imports (+9%) between 2013 and 2017. This indicates that the European market offers growing opportunities for developing country exporters. Please note that this data covers a broad category of vegetable oils, while import trends for your specific vegetable oil may be very different.

Important target markets for developing country producers of vegetable oils are the Netherlands, France, Denmark and Belgium. Imports originating in developing countries made up 49% of the Dutch vegetable oils’ imports for 2017, and 82% of Danish imports. French and Belgian imports from developing countries grew faster than their total imports from all countries. The main European processors of vegetable oils are the Netherlands, France, Denmark and Italy.

Although these countries import smaller volumes, Switzerland, Bulgaria and Romania increased their imports of vegetable oils from developing countries substantially from 2013 to 2017 (+21%, +134% and +117% annually, respectively). This implies that these countries offer growing opportunities for producers in developing countries.

Tips:
- Target countries that are increasingly sourcing directly from developing countries, such as Belgium, France, Switzerland, Bulgaria and Romania.
- You can also target large importers of vegetable oils such as the Netherlands, France, Italy and Denmark to reach other countries in Europe as well.
Determine other, smaller potential markets for your exports, based on a feasibility study. These markets could still offer substantial export opportunities to small and medium-sized enterprises.

Information on vegetable oil suppliers to Europe also points toward potential competitors for your palm oil alternative. Leading non-European suppliers in 2017 include Ghana, India, and Togo. One of the main export products for these countries is probably *jatropha*, which is used as a biofuel.

The majority of trade in vegetable oils comes from European sources. The Netherlands, Denmark, Germany, Spain and Italy, the leading European suppliers, make up a combined 56% of Europe’s vegetable oils supplies.

**Tip:**
- Analyse export data from countries that produce similar or competing vegetable oils to find competitors and export markets for your products. In many cases, you can find more detailed and specific export statistics at local statistics offices. For example, check the websites of the department of commerce in your home country.

European imports of palm oil are highest in Western European countries, especially in the Netherlands, Italy, Germany and Spain. The Netherlands re-exports a large proportion of its imports, as opposed to Germany and the United Kingdom, where a lot of processing takes place.

Global production of palm oil amounted to **over 66.8 million tonnes in 2017**. In the same year, the European Union imported 7.2 million tonnes ([Trade Helpdesk](https://www.tradehelpdesk.com)). Cosmetics producers use around 7% of the global palm oil supply.

The European countries which are probably most interested in palm oil alternatives and offer most opportunities for you include Norway, Denmark, Belgium, France, the Netherlands, Germany, the United Kingdom, Austria, Switzerland, Sweden and Italy. Most of these have established 100% **Certified Sustainable Palm Oil commitments by 2015**, and several have set additional targets for before 2020. Even though these commitments are in the food and feed industries, we expect that this interest in sustainable palm oil or alternatives will affect demand from cosmetics producers as well.

Several alternatives to palm oil – such as olive and sunflower oil – are produced in Europe. Producers of these oils will find competition in Europe. For buyers in Europe, tracing the origin of these oils is easier than tracing oils from outside Europe. Producing these oils in developing countries may not be feasible when considering the serious competition in this respect.

**Tips:**
- Focus your exports of palm oil alternatives on countries mentioned above, where most interest in these alternatives is expected.
- Increase the traceability of your palm oil alternative by providing your buyers with elaborate information on the sourcing and production of the oil.
Exports
The volume of European vegetable oil exports rose by an average 4% annually from 2013 to 2017, when it reached 253 thousand tonnes valued at €712 million.

In 2017, the largest European exporters of vegetable oils were Denmark, Italy, Spain, Germany, France and the Netherlands. Altogether, these countries accounted for 80% of Europe’s total export volume. Naturally, the presence of very large companies, such as Cargill in the Netherlands and the AAK factory in Denmark, greatly affects these numbers.

Major destinations of European vegetable oils in 2017 were other European countries, the United States of America (8% of export volume), Russia (3% of export volume) and South Korea (3% of export volume). Rapidly growing destinations included the Netherlands, Austria, Russia and Portugal.

3. What trends offer opportunities on the European market for palm oil alternatives?

Consumer awareness: increasing consumer awareness of the negative impact of palm oil production practices on the environment increases the demand for palm oil alternatives. Furthermore, a spill over from the awareness of palm oil in food products will also affect the use of palm oil in cosmetic products. Since December 2014, labels of food products must mention if they contain palm oil instead of the term ‘vegetable oils’ generically. This will further increase consumer awareness about the widespread use of palm oil. However, alternatives are only appropriate if they have a low price comparatively to palm oil, are of good quality and are widely available. Consumers should be prepared to pay higher prices for palm oil alternatives or certified sources of responsibly sourced palm oil.

Tips:
- In your promotional material, emphasise how the production process of your oil is more sustainable than the production of palm oil. Cosmetics producers who replace palm oil in their products with alternatives can use this in their marketing.
- Educate your buyers about the uses of alternatives to palm oil if necessary. Inform them about your oil’s properties and applications both in terms of direct use in cosmetic products and their potential for derivatives.
- Keep up to date with developments in the food industry. If, in future, certain alternatives are used in food products, explore their potential for the use in cosmetic products and your opportunities to produce them.

Ethical products: a growing interest in ethically sourced cosmetic products provides an opportunity for fair trade and organically certified palm oil alternatives. Persistence Market Research predicts that the global market for organic cosmetics will grow by 8-10% annually from an estimated $ 11 billion in 2016 (€ 10 billion) to almost $ 22 billion in 2022 (€ 18.5 billion). In comparison, the entire 2016 market for cosmetics in the United States, Europe, China and Japan reached € 200 billion. Europe accounts for around 30–35% of the global organic market.

In addition, consumers are increasingly interested in the story behind ethical certification. In their marketing, cosmetics producers actively communicate the most enticing stories for their ingredients to improve the connection between consumer and product. Communication takes place using images, with short stories about the product, or using the producer’s corporate image.
Tips:

- Focus on the story behind your oil and highlight the ethical credentials of the supply chain, as a way to distinguish your product from palm oil and other competing vegetable oils. It will be to your benefit to help cosmetics producers to get these stories across, for example by providing photos and/or other illustrations.

- Check your opportunities for obtaining certification for ethical sourcing, such as Fairtrade or organic certification. See the section on Market Segments below for more information.

As more companies produce derivatives based on palm oil alternatives, the market for alternatives is becoming larger. Examples of these are emollients or emulsifiers derived from coconut oil or rapeseed oil or others.

Tip:

- If you produce palm oil alternatives that can be marketed to the traditional oils segment, such as olive oil, emphasise the artisanal character of the oil.

Traditional vs. Exotic: there is ongoing consumer interest in both traditional and speciality oils. Allanblackia seed oil from Ghana is an example of an exotic alternative to palm oil. Another consumer segment is more interested in traditional products with a simple, artisanal character. Products with olive oil are increasingly popular as a local, well-known ingredient in soaps, for instance.

Tip:

- For exotic oils, focus on the region of origin in your marketing.

Natural cosmetics: in Europe consumers are increasingly interested in natural ingredients in cosmetics. According to industry sources and market studies, the global natural cosmetics sector is expected to continue to grow, with France, Italy, Switzerland and Germany as the main markets. Palm oil is a natural ingredient. As such, alternatives can replace the oil in natural cosmetic products.

According to the Kline group, the natural cosmetics market amounted to $ 33 billion globally in 2015 (€ 29 billion). That figure is 13% of the total cosmetics market (Brands with a Conscience, Ind & Horlings, 2016). This market is predicted to grow to $ 50 billion (€ 44 billion) in 2019. In comparison, the total 2017 cosmetics market in the United States, Europe, China and Japan reached almost € 220 billion.

Tips:

- In your promotional material, emphasise the potential of the use of the vegetable oil you produce in natural cosmetics. Focus on the range of possible applications of your oil.
4. What requirements should palm oil alternatives 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 oils, documentation on the toxicological profile will be expected, including local toxicity, such as skin and eye irritation.
- Comply with relevant legislation. Read more about the marketing conditions for cosmetic products and the Cosmetics Regulation on the Trade Helpdesk from the European Commission.
- See our study on buyer requirements for natural ingredients for cosmetics 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. Moreover, if volumes remain lower than 1 tonne per importer per year, 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 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:**
- Use the database on classification and labelling on the ECHA website to determine which symbols and warning phrases apply to your product.
- See the website of the European Chemicals Agency 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 product 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.

**Tips:**
- 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.
- Read more about CITES on the Trade Helpdesk website.

Access and Benefit Sharing (ABS): The Nagoya Protocol provides guidelines for accessing and utilising genetic resources and traditional knowledge and the fair and equitable sharing of the benefits, called Access and Benefit-Sharing (ABS). European companies are legally required to ensure that the ABS legislation has been followed in the country of origin and downstream to their businesses.

You also need to comply with requirements from international treaties on using plant resources. The European Union has translated guidelines on ABS into European law. Most likely, these are also part of your national law.

**Tips:**
- Put a procedure in place to check whether ABS applies to your palm oil alternative.
- Check the specific ABS regulations in your country.

5 . Common requirements

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 products, 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 Hazard Analysis and Critical Control Points principles (HACCP).
• 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 (EFIC) 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 sustainability performance in terms of 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 responsibilities, both as an employer and a supplier.
• Look into social responsibility platforms such as the Supplier Ethical Data Exchange (SEDEX), which provide a template of the typical information required. They also facilitate the sharing of this information with potential customers.

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 is more straightforward. Allergenic properties of vegetable oils 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.
Tips:

- Specify the protein content of your oil 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. See our workbook on how to prepare a technical dossier for cosmetic ingredients for additional information and documentation requirements.

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.

Buyers of cosmetic ingredients in Europe expect private-sector standards to remain as the accepted certification for natural and organic cosmetics, unless European standards are introduced. For the time being, ISO standards are an option for small producers for whom certification is too expensive. An alternative minimum self-certifiable standard is ISO 16128 standard part I and part II, which cover definitions and criteria for natural and organic cosmetic ingredients and products.

Organic: European rules specify 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).

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 organically and social sustainably certified ingredients, see Market Trends above.

6. What competition do I face on the European market for palm oil alternatives?

Many oils could potentially be marketed as palm oil alternatives, depending on the application, but a 100% replacement is unlikely. Some examples are provided below.
Market entry for palm-oil alternatives

Because the properties, application and price of coconut oil are similar to those of palm kernel oil, this is a strong candidate as an alternative to palm kernel oil. Coconut trees are cultivated in over 80 countries: the main production of coconuts is located in the Philippines, Indonesia and India. Coconut oil production is no more complex than that of palm oil since it is cold-pressed. However, solvent extraction can be applied to extract the last remaining drops of oil.

Allanblackia seed oil has also been identified as an alternative to palm oil, which is how it is used in its country of origin, Ghana. Unilever Ghana has started producing the oil, and is the main competitor for new producers. Historically, these seeds were wild-harvested, but cultivation of the trees has commenced in various African countries. It is important to set up sustainable production of the oil in order to prevent a situation in the future similar to that currently facing palm oil production.

Argan oil, which is mainly produced in Morocco, is another alternative to palm oil. The composition of argan oil is comparable with that of palm oil. It can be refined into emollient, skin conditioning, emulsifying and surfactant derivatives. The major drawback of using argan oil as an alternative is that it costs much more than palm oil and global production is considerably lower.

Tips:

- As an exporter of palm oil alternatives, emphasise the fact that your alternatives have the advantage of not requiring lengthy and costly RSPO certification, since your product is not palm oil.
- Determine which extraction method is required for the palm oil alternative and what investment is needed to implement it. If the investment required is high, cooperate with other producers of palm oil alternatives to share the investment costs.
- Set aside sufficient funds for a marketing campaign. This is a costly but essential part of your promotional activities.

Company competition

- Some palm oil alternatives such as coconut oil and olive oil are already traded in large quantities and constitute an established market. New suppliers will find it difficult to gain access to these markets.
- Moreover, several important alternatives to palm oil, such as olive oil and sunflower oil, are already produced in Europe. Exporters of these oils will therefore face severe competition from European producers. Sale of these oils on the European market may thus not be a feasible proposition for developing country exporters.

Tips:

- Determine to what extent you are able to compete in the markets for palm oil alternatives such as coconut, olive and sunflower oils, which require high volumes and where you face strong competition from established sources.
- Refer to our study on competition for natural ingredients for cosmetics for more information.
What do the trade channels and market segments of interest for palm oil alternatives in Europe look like?

Market channels

Please refer to our study on market channels and segments for natural ingredients for cosmetics for an overview of market channels, segments, trends and developments.

Palm oil alternatives exported in crude form

Like most vegetable oils, palm oil alternatives are commonly exported to Europe as crude oil. In Europe and elsewhere, they are often further processed (refined oil, derivatives) before use in cosmetics.

Palm oil itself can be used directly as oil in cosmetics, but it is predominately processed into specific cosmetic ingredients. The main ingredient categories that are used in cosmetic products are surfactants, emollients and emulsifiers. Alternative sources for these ingredients are, for example, coconut oil, corn oil, argan oil, cottonseed oil, safflower oil, and rapeseed oil. Many of these ingredients are produced in Europe.

Developing country exporters can add value by producing processed oils and derivatives through working together with local/regional chemical industries, cooperating with other producers to invest in processing facilities, or establishing joint ventures with European companies.

Tip:

- Make sure that you can meet your buyer’s requirements in terms of quality, composition, quantity and cost of the oil before setting up installations to refine the palm oil alternatives, for example by deodorising or bleaching them. Determine which installations are necessary to meet buyer requirements and research whether your buyers prefer refined oil. This depends on their end product.

Depending on the product and the company’s capacities, developing country exporters can supply companies that manufacture cosmetics ingredients or smaller, more independent cosmetics producers.

Tip:

- Based on the versatility of your palm oil alternative, determine on which buyers you should focus. If additional processing is needed, you could opt for supplying cosmetic ingredients to manufacturers. If you can supply large volumes of oil, direct your exports to cosmetics producers, etc.

Palm oil alternatives can be sold directly to cosmetics producers or processors, but are more likely to reach the market through intermediaries such as traders and distributors, or facilitated by agents and brokers.

Tip:

- Benefit from the experience and knowledge of European importers and agents instead of
Speciality vegetable oils and certified organic or Fairtrade oils usually have relatively short trade channels. This is because they are often traded by specialised traders.

Market segments
Variety of applications
The variety of applications of palm oil implies that alternatives to the oil can be applied in various segments as well. However, keep in mind that palm oil is a versatile product; not all alternatives can be applied in the same broad range of products. Moreover, higher prices will severely restrict application in products with higher price points, either in terms of product categories (skin care, soaps), or in market segments (premium, natural).

In general, where vegetable oils are needed palm oil alternatives can be used as well. However, palm oil is not extensively used as a pure oil in cosmetics. Rather, palm oil derivatives are applied. Therefore, the impact of palm oil derivative alternatives will be much greater in cosmetic products.

Tips:
- Explore the possible applications of your palm oil alternative, backed up by actual product trials if possible. Use these in your marketing. If your oil has most potential in a specific segment, focus your attention on that segment. For more information on the properties of alternatives, you could start by checking CosIng.
- Highlight the benefit of using a palm oil alternative across the whole range, not only as a pure oil but also as a modified oil with other properties such as foaming or emulsification.

Direct applications of palm oil alternatives
Table 1: Major cosmetic segments and applications for direct use of palm-oil alternatives

<table>
<thead>
<tr>
<th>Segment</th>
<th>Sub-segment</th>
<th>Benefits of palm oil alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toiletries</td>
<td>Soap</td>
<td>Vegetable base for liquid soap&lt;br&gt;Direct applications apart from soaps will be very limited&lt;br&gt;Moisturising properties&lt;br&gt;Product marketing around palm-oil-free products is mostly focused on soap</td>
</tr>
<tr>
<td>Skin care</td>
<td>Creams and lotions, face and body care, skin oil, sun care, anti-aging products</td>
<td>Moisturising properties, revitalises, smooths and softens the skin&lt;br&gt;Good marketing potential for palm-oil-free products&lt;br&gt;Application of alternatives is easier in higher-priced products</td>
</tr>
<tr>
<td>Hair care</td>
<td>Shampoos, conditioners</td>
<td>More limited marketing potential as oils are generally not used in these products</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Decorative</td>
<td>Lipstick, makeup; foundation, eye liner etc.</td>
<td>Base for lipstick; direct applications in other sub-segments will be very limited. More limited marketing potential. Can be used in a range of makeups, but only in small amounts.</td>
</tr>
</tbody>
</table>

It is easy to replace palm oil by other vegetable oils in soap, and this is often done. Examples of popular alternatives are: olive oil, shea butter and cocoa butter.

**Tip:**
- If your palm oil alternative can be used efficiently to make soap, emphasise this application to your buyers.

Palm oil alternatives have potential when used in skin care products, where they are used as moisturisers and to smooth and soften the skin. In this segment, consumers are more willing to pay higher prices, offering better potential for alternatives with a relatively high price. Important alternatives in this segment are shea butter, sunflower oil and argan oil.

**Tip:**
- Emphasise the potential of the use of palm oil alternatives in skin care products.

The hair care segment offers opportunities for lower-priced palm oil alternatives. Alternatives in this segment include soybean oil, coconut oil and corn oil.

There is a growing market for fairly traded vegetable oil. These oils do not necessarily need to be certified. Consumers and cosmetics producers are increasingly interested in the story behind ethically sourced and processed final products. Whether fair trade certification is necessary depends on your buyer’s preferences.

**Tips:**
- Focus your promotional material on the story behind ethical certification, emphasising the social benefits to local communities of your production.
- If you want to obtain Fairtrade certification, check the requirements of the [Fairtrade standard](#). Always discuss these opportunities with your buyers.

Depending on the final product, there is a market for organically certified palm oil alternatives. Since no legislation on organic ingredients in cosmetic products exists, manufacturers have more
leeway when they use the term ‘organic’. Even after refining and processing, oils can still be called organic in cosmetic products.

**Tip:**
- Discuss the opportunities for organically certified palm oil alternatives with your buyers before launching into a product development plan to source organic raw material.

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### Derivatives of palm oil alternatives

**Table 2: Major cosmetic segments and applications for derivatives of palm oil alternatives**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Sub-segment</th>
<th>Benefits of derivatives of palm oil alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toiletries</td>
<td>Soap, shower gels</td>
<td>Surfactant (foaming agent)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marketing of palm-oil-free products mostly for soap</td>
</tr>
<tr>
<td>Skin care</td>
<td>Creams and lotions, face and body care, skin oil, sun care</td>
<td>Thickener and emulsifier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emollient</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin conditioning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Good marketing potential for palm-oil-free products</td>
</tr>
<tr>
<td>Hair care</td>
<td>Shampoos, conditioners</td>
<td>Surfactant (foaming agent)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hair conditioning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited marketing potential</td>
</tr>
<tr>
<td>Decorative</td>
<td>Lipstick</td>
<td>Emollient, emulsifier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited marketing potential</td>
</tr>
</tbody>
</table>

Palm oil derivatives are used in nearly all cosmetic products. In order to replace these with suitable alternatives, the challenge is to identify the most commonly used derivatives, since many types of derivatives have specialised uses such as surfactants. Please note that the volumes of palm oil alternatives may limit the range of specialised derivatives.

Different derivatives of palm oil are used in the skin care segment. They are mostly used as emollients and emulsifiers. These ingredients can also be derived from sources such as coconut oil, argan oil, rapeseed oil and sunflower oil, but they are more expensive.

In the hair care segment, common derivatives used are surfactants (foaming agents) in, for example, shampoos, and emollients in hair conditioners.

Derivatives are also often used in toiletries, most notably in soaps and shower gels. This mostly concerns surfactants, emulsifiers, and emollients. In general, derivatives from palm oil are more commonly substituted in soaps than in other cosmetic products.

**Tip:**
- Check the price of your palm oil alternative and determine whether it is low enough for use as a substitute in the palm oil derivatives market. For use in derivatives, the price of
your oil is even more important than for direct application, as the marketing story commonly tends to focus more on the palm oil free aspect than on the specific oil. Moreover, as processing is done on a much smaller scale than for palm oil alternatives, the price difference further escalates down the chain.

8. What are the end market prices for palm oil alternatives?

Difficult to compete with palm oil on price and volume

An important condition for identifying palm oil alternatives is price and volume. Palm oil has a very competitive price due to its high yield and low production costs. The average world price of palm oil in May 2018 was € 567 ($ 660) per tonne, or € 0.57 per kg. A premium is added for RSPO certified palm oil. This premium is agreed upon between buyer and seller and is around $ 10 per tonne.

Prices for some currently used alternatives to palm oil are:

- coconut oil: around € 1.50 per kg
- sunflower oil: € 3 per kg

Tips:

- Monitor prices of palm oil and palm kernel oil compared to their alternatives. If these prices rise, alternatives become more attractive to buyers. For example, check the DataBank of the World Bank and our studies on vegetable oils.
- Based on your cost price, determine if you can supply an alternative to palm oil at a competitive price. 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.

Cosmetics products that are ‘palm free’ can fetch higher prices. As a result, these products have a broader margin to apply higher-priced oils.

Tip:

- Explain the reasons for the higher price of the palm oil alternative when compared to palm oil to your buyers. For example, differentiate your product in terms of sustainable sourcing or marketing potential.

Similar to vegetable oils, the price level of palm oil alternatives generally depends on the availability, variety, quality, novelty and exchange rates.

A price mark-up is attached to certified vegetable oils. As an example: pressed, organic certified coconut oil was 10% more expensive than non-certified coconut oil, from the same company in the same product size.
Tip:
- In pricing your product, consider: the maximum price the market is willing to pay for your product, demand, cost analysis and break-even analysis. Ensure that the price reflects the quality levels and delivery conditions.

For new palm oil alternatives, it is very important to secure sufficient supply to meet rising demand if oils become established alternatives. Buyers of high-priced oils are more likely to switch to other oils if these provide a price advantage.

Tip:
- Secure the availability of oil for your cosmetic oil buyers. There is likely to be increasing competition with food buyers and prices may be increasing.

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

Figure 3: Price breakdown for palm oil alternatives, mark-ups in %

<table>
<thead>
<tr>
<th>Export</th>
<th>Sea freight</th>
<th>Import</th>
<th>Refining/purifying</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>+1-8%</td>
<td>+5%</td>
<td>+3-19%</td>
<td>+30%</td>
<td></td>
</tr>
</tbody>
</table>

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 palm oil alternatives 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 European export markets.
  EU Expanding Exports Helpdesk - go to ‘trade statistics’.
- Eurostat - statistical database of the European Union. Several queries are possible. For trade, choose ‘EU27 Trade Since 1995 By CN8’. Use the guide ‘Understanding Eurostat: Quick guide to easy context’ for instructions.