CBI
Ministry of Foreign Affairs

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DEUTSCHE ZUSAMMENARBEIT

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Import Promotion Desk

Practical market insights into your product

Exporting Essential Oils from Nepal to Germany

Increasing competition for essential oils from emerging markets stimulates German importers to search for new sources. They consider Nepal as a potential new source. However, the relatively small scale of Nepalese essential oils production and high prices for some products make it more difficult for Nepalese exporters to enter the European market. Niche markets offer the best opportunities for most Nepalese suppliers.

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PRODUCT DESCRIPTION

This factsheet focuses on exports of essential oils from Nepal to Germany, with particular attention for seven essential oils:

- Gaultheria fragrantissima (wintergreen)
- Nardostachys jatamansi (spikenard)
- Rhododendron anthopogon (rhododendron)
- Juniperus communis (common juniper)
- Zingiber officinale (ginger)
- Mentha arvensis
- Zanthoxylum armatum (zanthoxylum)

Production of essential oils from these seven plant species has good potential in Nepal.

TABLE 1: PRODUCT DESCRIPTIONS FOR ESSENTIAL OILS OF WINTERGREEN, SPIKENARD, ANTHOPOGON AND JUNIPER

	GAULTHERIA FRAGRANTISSIMA (WINTERGREEN)	NARDOSTACHYS JATAMANSI (SPIKENARD)	RHODODENDRON ANTHOPOGON (ANTHOPOGON)	JUNIPERUS COMMUNIS (COMMON JUNIPER)
				
	Source: Flickr.com	*Source: efloras.org*	*Source: rhododendron.dk*	*Source: forestrynepal.org*
Botanical origin	*Gaultheria fragrantissima* and *Gaultheria procumbens*	*Nardostachys jatamansi*	*Rhododendron anthopogon*	*Juniperus indica, Juniperus recurva* and *Juniperus communis*
Geographical provenance	Asia *(Gaultheria fragrantissima)* andNorth America *(Gaultheria procumbens)*	Himalayas in Nepal, India, Bhutan and South-West China	East Asia to Western China	*Indica* and *recurva*: high altitude climates in Himalaya *Communis*: temperate regions of Northern hemisphere
Extraction	Distillation of wild-collected leaves (yield of 0.3-0.9%)	Distillation of wild-collected, dried and crushed roots (yield of 1-3%)	Distillation of aerial parts (average yield of 0.3%)	Distillation of berries (yield of 0.8% and 1.6%) Essential oils from roots, needles and twigs are less common
Use in cosmetics	■ Provides typical (sweet) odour to perfumes and home fragrances ■ Topical application in diverse cosmetics including skin-care, shampoos and tooth-paste ■ Aromatherapy products for relaxation	■ Provides earthly aroma to perfumes and masking sprays ■ Topical application in diverse cosmetics including skin-care formulations such as creams and lotions ■ Aromatherapy products for soothing and stress relieving	■ Provides exotic floral aroma to perfumes ■ Topical application in diverse cosmetics including sham-poo, skin-care and bath-care formulations ■ Aromatherapy products for relaxation	■ Provides fresh, spicy, woody aroma to (men's) perfumes and after shave ■ Topical application in diverse cosmetics including soaps and skin-care
Use in foods	Provides strong minty flavour in flavourings for diverse foods and beverages in candies, sodas, beers and gum	Functions as flavouring agent to modify calamus, valerian, hop, ginger and cardamom	No food uses	Provides a distinctive clean and tangy taste to flavourings to foods and (alcoholic drinks)
Use in pharmaceuticals	not allowed	not allowed	not allowed	Preparations for treatment of blood circulation, rheumatic, diuretic and minor digestive problems include bath additives, soft capsules.
Production	3.5 tonnes in Nepal in 2010	2 tonnes in Nepal in 2006	250 kg in Nepal in 2010	1.4 tonnes in Nepal annually in recent years
Trade	Approximately 70% of Nepalese production is exported to the EU and US	Small-scale trade in 10-50 kg lots	Approximately 80% of Nepalese production is exported to inter-national markets such as the EU and US	Approximately 50% of Nepalese production is exported to inter-national markets such as the EU, US and India
Competition	China produced an average of 40 to 100 tonnes in recent years	China, India and France	n.a.	n.a.

TABLE 2: PRODUCT DESCRIPTIONS FOR ESSENTIAL OILS OF GINGER, MENTHA ARVENSIS AND ZANTHOXYLUM

	ZINGIBER OFFICINALE (GINGER)	*MENTHA ARVENSIS*	ZANTHOXYLUM ARMATUM (ZANTHOXYLUM)
			
	Source: pubs.sciepub.com	*Source: iNaturalist.org*	*Source: Smithsonian, National Museum of Natural History*
Botanical origin	*Zingiber officinale*	*Mentha arvensis*	*Zanthoxylum armatum* (synonym *Zanthoxylum alatum*), english: Sichuan pepper
Geographical provenance	Indigenous to Southern China and eventually spread to the Moluccas and other parts of Asia, West Africa and the Caribbean	Native to temperate regions of Asia, Europe and North America	Native to East and Central Asia
Extraction	Distillation of roots (yield of 2-4%)	Distillation of wild-collected and cultivated dried leaves and flower buds (yield of 2-5%) Crystallisation of menthol by refrigeration. Remaining oil is known as dementholised oil (DMO)	Distillation of dried fruits (yield of 4-5%) European flavour and fragrance manufacturer Mane produces CO_2 extracts which contain more volatiles present in the raw material than essential oils. Marketing by Mane of this CO_2 extract increases buyer recognition for zanthoxylum products and may stimulate sales of the essential oil as well.
Use in cosmetics	■ Men's perfumes and after shaves ■ Topical application in diverse cosmetics including skin-care products such as lotions ■ Provides spicy and warm aroma to aromatherapy products	■ Provides fresh odour and cooling in toothpaste, mouthwash, aftershave, cooling gels ■ Provides fresh odour to fragrances ■ Provides cooling and refreshing properties to aromatherapy products	■ Provides refreshing spicy odour to fragrances ■ Topical application in diverse cosmetics including skin-care products such as soaps and creams for calming and soothing function ■ Aromatherap products for stimulation
Use in foods	Provides hot and pungent taste in flavourings for diverse foods and beverages	Provides strong, clear minty aroma to flavourings for foods and beverages such as chewing gum and chocolate	Provides peppery taste in flavourings for diverse foods and beverages such as chocolate, cheese and sauces
Use in pharmaceuticals	Not allowed (only the root is allowed)	Not allowed (only partly dementholised oil is permitted in herbal medicine)	Not allowed
Production	n.a.	Nepalese production is negligible	n.a.
Trade	China produces an estimated 50-80 tonnes annually	India dominates market with production of 32 thousand tonnes in 2017	Niche market with very few players (fragrance and flavouring manufacturers) and very small quantities traded (<10 tonnes). International trade usually comprises lots of only 1-50 kg
Competition	China, India and Indonesia	India (80-90% of global market), China (10%), Brazil and Japan (together 10%)	No considerable competition. Current availability is low which offers opportunities for suppliers.

Classification of essential oils:

- Harmonised System (HS) codes:
  - 3301.29: essential oils other than citrus and mint oils
  - 3301.25: mint oils other than peppermit oil *(Mentha piperata)*
- Chemical Abstract Service (CAS) registry numbers:
  A CAS Number "provides an unambiguous way to identify a chemical substance or molecular structure when there are many possible systematic, generic, proprietary or trivial names":
  - Wintergreen oil: ■ 68917-75-9
  - Spikenard oil: ■ 90064-28-1
  - Anthopogon oil: ■ 8006-90-4
  - Juniper berry oil: ■ 8002-68-4/Juniper root, needle, twig oil: 84603-69-0
  - Ginger oil: ■ 8007-08-7
  - Mentha arvensis oil: ■ 68917-18-0
  - Zanthoxylum oil: ■ 91770-90-0 (Zanthoxylum alatum, ext.) and 102242-62-6 (Zanthoxylum, ext.)
- International Nomenclature of Cosmetic Ingredients (INCI) names:
  Cosing, the European Commission database of cosmetic substances and ingredients, lists several essential oils separately under their INCI names. INCI is a system of names which 'differ greatly from systematic chemical nomenclature or from more common trivial names'.
  - Wintergreen oil: ■ Gaultheria fragrantissima Wall (wintergreen) leaf oil
  - Jatamansi oil: ■ Nardostachys jatamansi oil
  - Anthopogon oil: ■ Rhododendron anthopogon Flower/Leaf Extract
  - Juniper berry oil: ■ Juniperus communis fruit oil/Juniper roots, twig and needle oil: Juniperus communis wood oil
  - Ginger oil: ■ Zingiber officinale root oil
  - Mentha Arvensis oil: ■ Mentha arvensis leaf oil
  - Zanthoxylum oil: ■ Zanthoxylum alatum fruit extract and Zanthoxylum alatum bark extract
- UN numbers:

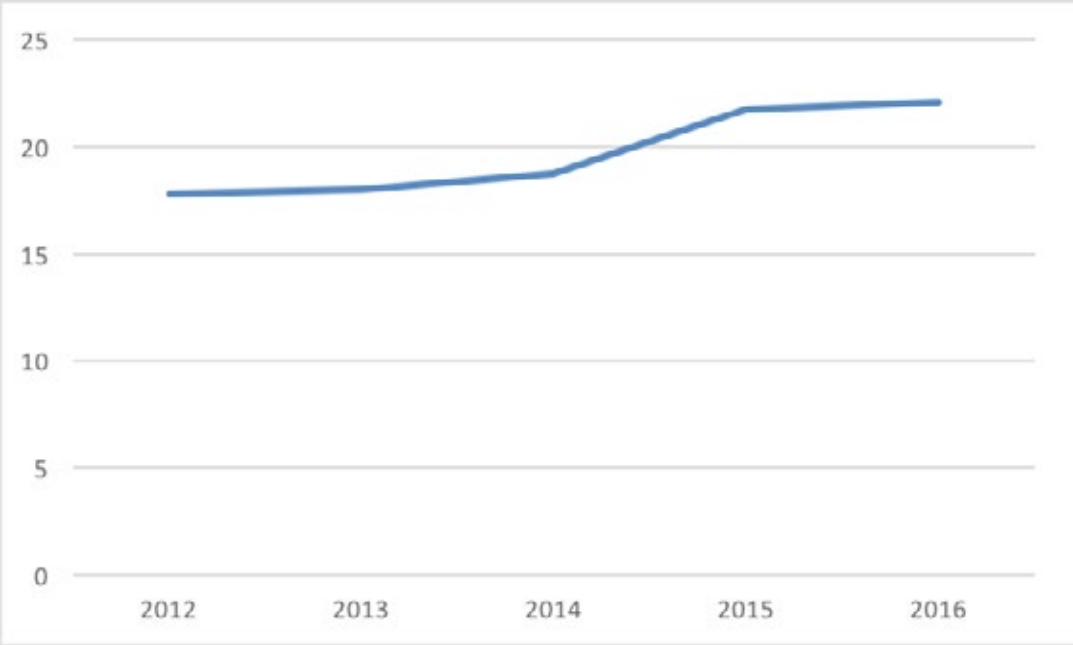
The United Nations Committee of Experts on the Transport of Dangerous Goods has assigned UN numbers to hazardous substances in the framework of international transport. In the list of UN numbers, essential oils are defined as 'Extracts, aromatic, liquid' with UN number 1169.

WHAT MAKES GERMANY AN INTERESTING MARKET?

GROWING DEMAND FROM FLAVOUR AND FRAGRANCE MANUFACTURERS

Globally operating flavours and fragrance manufacturers are the main buyers for essential oils in Germany. Their sales figures provide an indication of developments in their market and subsequent demand for essential oils.

FIGURE 1: TURNOVER OF THE WORLD'S LEADING FLAVOUR AND FRAGRANCE MANUFACTURERS, 2012-2016, IN BILLION EUROS



Source: Cosmetics Europe, 2017

Between 2012 and 2016, global sales of flavour and fragrance manufacturers increased by 5.5% annually to € 22 billion. Growing demand for natural cosmetics and natural flavourings is an important driver of growth in these sales.

The two major flavour and fragrance manufacturers Symrise and WILD Flavors have headquarters in Germany, while all other major manufacturers have sales offices or manufacturing locations in Germany.

FLAVOUR AND FRAGRANCE MANUFACTURERS NEED SUSTAINABLE SUPPLIES

German flavour and fragrance manufacturers are highly interested in sustainable sourcing of essential oils for two reasons:

- Consumers are becoming more interested in the production of their purchases. They want to know that the production is sustainable for the people involved and for the environment.
- Buyers themselves need stable supplies of strategic ingredients and apply sustainability principles to secure supplies.

The increasing need for sustainability causes German buyers to invest in stronger relationships with their suppliers. For example, they invest in training of suppliers in sustainable management of natural resources. Moreover, exporters will have to make their supply chains more transparent by providing more information to buyers about their supply chain management and take more responsibility for the sustainability of raw material production.

TIPS:

- Keep track of sustainability initiatives which are of interest for your product in trade press such as Cosmetics Design Europe and Cossma.

FOOD MANUFACTURERS USE MORE FLAVOURINGS

The German flavour industry consists of some 50 companies. 95% of them are organised in the German association of the flavours industry (DVAI). The turnover of the German flavourings industry is € 340 million (Source: DVAI, 2017).

A need for more complex flavours by West European food and beverage manufacturers drives sales values of many German companies upwards. In East European markets, increased demand for flavours in general has stimulated German sales. Emerging markets outside Europe, such as Southeast Asia and Latin America, also made a significant contribution to growing sales of the German flavour industry.

CONSUMERS WANT FLAVOURS MADE FROM NATURAL INGREDIENTS

In Western Europe including Germany, demand for natural flavours was a particularly strong driver of total flavourings sales. This also explains the strong demand for essential oils, as ingredients for these natural flavours.

GERMANY LEADS THE EUROPEAN MARKET FOR NATURAL COSMETICS

Germany is the leading European market for natural cosmetics, as opposed to cosmetics with mainly synthetic ingredients. In 2016, the German market for natural and organic cosmetics grew by 9.2% to 9% of the total cosmetics market. The sales of natural and organic cosmetics amounted to € 1.1 million.

Please note, however, that sales of these finished products do not automatically reflect increased essential oils usage, although it does give a general picture of the market.

Similar to the flavour industry, the natural trend is the main driver of industrial demand for essential oils in cosmetics. However, within the cosmetics industry, the use of essential oils in fragrances shows less growth than other uses.

GROWING MARKET FOR AROMATHERAPY PRODUCTS

Industry sources estimate that the aromatherapy market comprises 5-15% of the global essential oils market and is growing. The aromatherapy market in Germany is developing strongly, as health insurance companies are increasingly paying for alternative therapies.

Within the cosmetics market, there is a growing niche for cosmetics products with aromatherapy properties, which provides additional opportunities for essential oils. In the German aromatherapy market, cosmetics with essential oils are marketed as having additional benefits, such as 'uplifting' or 'calming'.

TIPS:

- Especially for cosmetics with an aromatherapy benefit, you need to be aware that you are not allowed to claim that the oil has health or medicinal benefits. Choose words carefully to describe the product/ingredient benefits to avoid claims to prevent a product to be seen as medicinal, for which requirements are far more stringent than cosmetics.
- Please refer to CBI Trends for natural ingredients for cosmetics for more market trends.

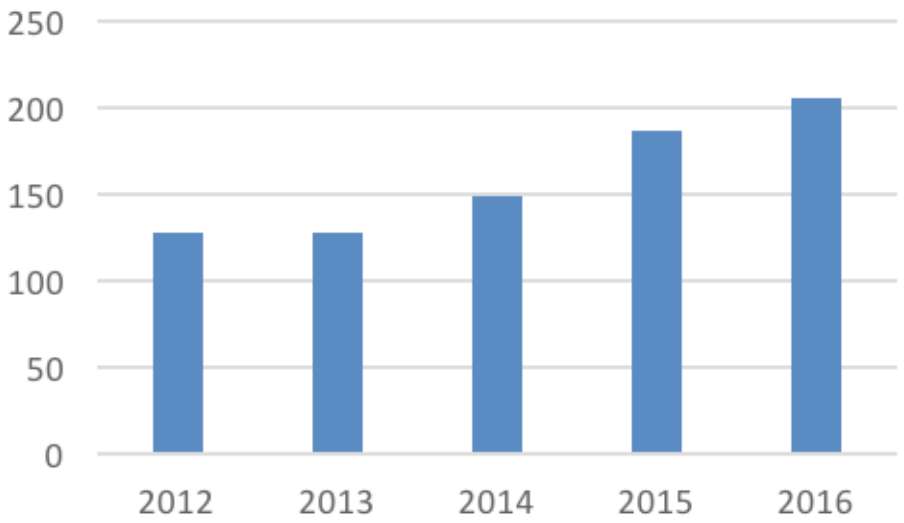
INSIGNIFICANT DEMAND FROM THE HEALTH PRODUCTS INDUSTRY

- Although the German pharmaceutical industry is big, it is an insignificant market for essential oils from Nepal. Most of the seven selected essential oils are not allowed as pharmaceutical ingredients.

GERMANY PRODUCES HIGHLY REFINED ESSENTIAL OILS

Germany plays an important role in total European production of essential oils. It is the 2nd largest European producer after France, accounting for 23% of total EU production value in 2016.

FIGURE 2: VALUE OF ESSENTIAL OILS PRODUCED OR PROCESSED IN GERMANY, IN MILLION EUROS



Source: Eurostat 2017

Since 2012, the value of German production and processing of essential oils increased significantly at an average annual rate of almost 13%, amounting to € 206 million in 2016. The increase in value was largely the result of price developments. Refer to the section on price developments for more details.

German producers will offer fierce competition in the market for refined essential oils. Germany has a strong extraction industry which uses high-tech extraction techniques, such as supercritical extraction, to prepare highly refined essential oils from raw materials which are imported from other countries.

GERMAN IMPORTERS HAVE DIFFICULTY SECURING THEIR ESSENTIAL OILS NEEDS

Driven by price increases in the period 2012-2016, the value of German imports of essential oils (other than those from citrus fruit and mint) increased at an average annual rate of 10% to € 121 million. In terms of volume, total German imports decreased at an average annual rate of 6% to 3.6 thousand tonnes.

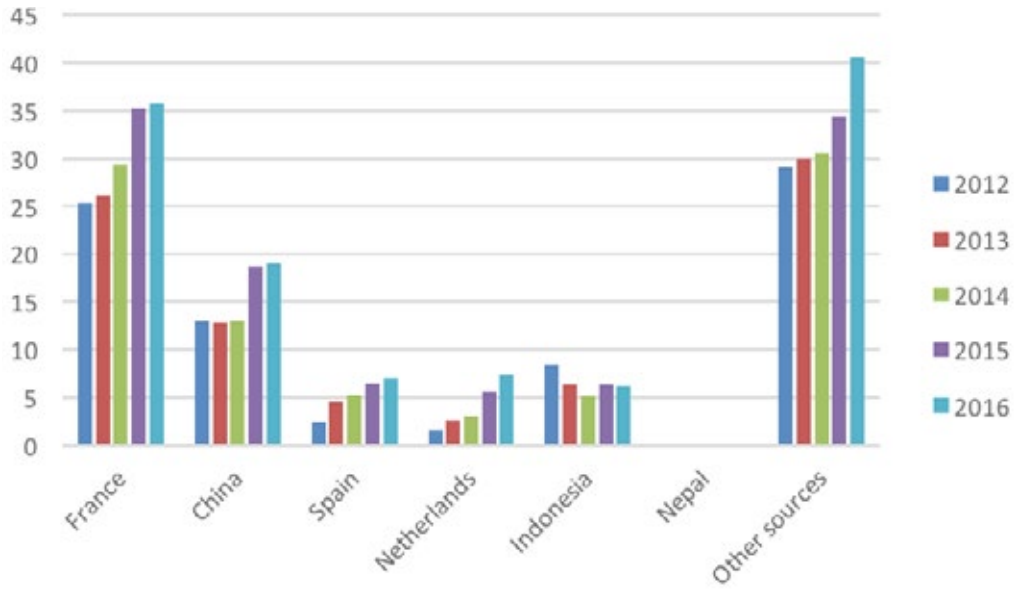
Price increases are largely the result of increasing demand for essential oils from emerging markets such as China and increasing demand globally for natural products. Meanwhile, production remains stable and is sometimes even under pressure from other, more profitable crops. In the case of wild-collected raw materials, rising wages for collectors in several countries further add to price increases.

STRONG COMPETITION FROM FRANCE FOR ESSENTIAL OILS FOR FRAGRANCES

France is the most dominant supplier of essential oils to the German market, accounting for a share of 30% of total import value. Moreover, between 2012 and 2016, French supplies increased at an average annual rate of 9%, reaching € 36 million. France has a very strong fragrance industry, which (re-)exports many essential oils to other European countries including Germany. As French importers add a lot of value to products (e.g. purification), the average value of their (re-) exports to Germany is relatively high. French supplies to Germany average € 53/kg, whereas supplies from other countries average only € 29/kg.

The threat of competition from French suppliers for Nepalese suppliers of the seven selected essential oils is small. France produces different essential oils than Nepal and only competes indirectly by supplying essential oils that could replace the Nepalese essential oils in certain cases. Many of these French competitors supply essential oils with a high added value. Refer to the section on competition for more details.

FIGURE 3: MAIN SUPPLIERS TO THE GERMAN MARKET OF ESSENTIAL OILS (EXCL. THOSE FROM CITRUS FRUIT AND MINT), IN 1,000 TONNES



Source: Eurostat 2017

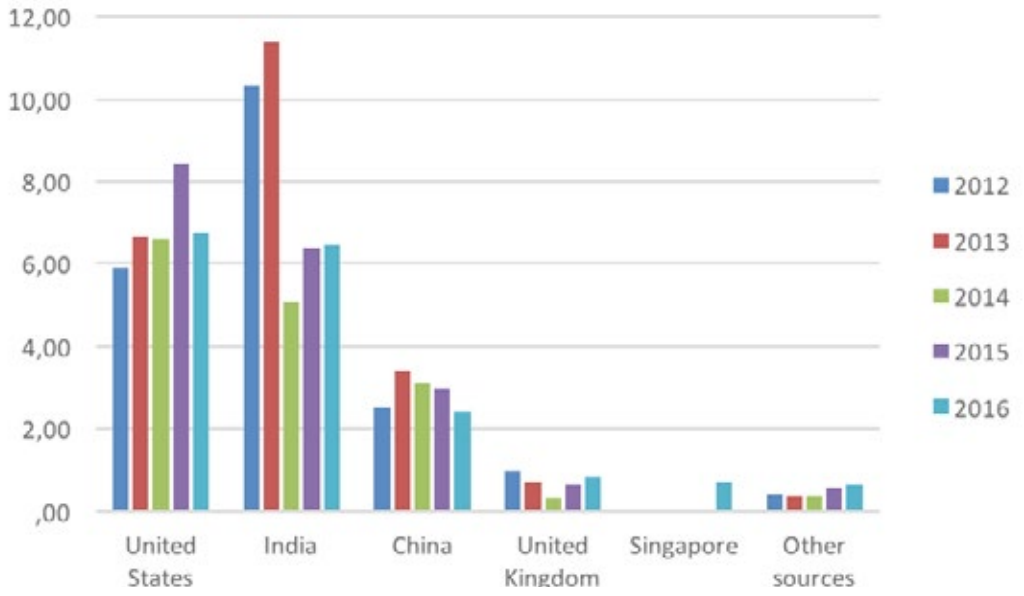
Other leading suppliers to the German market in 2016 include China (16% of total German import value), the Netherlands (6%), Spain (6%) and Indonesia (5%). China is a particularly big supplier of low value oils, such as Eucalyptus oil, cedar wood oil and star aniseed oil. In terms of volume, China supplies 38% of German imports. The Netherlands is particularly important as a re-exporter of products which enter Europe through the port of Rotterdam from where they are distributed to other countries.

The increasing prices of many essential oils stimulate German importers to search for new sources. Nepal is such a potentially new source. Currently, Nepalese supplies of essential oils are still negligible, accounting for only 0.1% of the total German import value in 2016. However, between 2012 and 2016, German imports of Nepalese essential oils increased at an average annual rate of 10%, amounting to € 79 thousand/ 2.1 tonnes in 2016.

Other small new sources for German essential oil buyers include Sri Lanka, Guatemala and Morocco. Supplies from Sri Lanka increased by 13% annually in terms of volume to 11 tonnes in 2016. Supplies from Guatemala increased by 34% annually to 5.2 tonnes. Supplies from Morocco increased by 65% annually to 3.0 tonnes.

UNRELIABLE SUPPLIES OF MINT OILS STIMULATE DEMAND FOR SYNTHETIC MENTHO

FIGURE 4: MAIN SUPPLIERS TO THE GERMAN MARKET OF MINT OILS (EXCL. THOSE FROM PEPPERMINT), IN 1,000 TONNES



Source: Eurostat 2017

German imports of mint oils (other than peppermint) fluctuated strongly in the period 2012-2016. Farmers in India rapidly increased their Mentha Arvensis production in response to a price surge in 2010. At the same time, three large manufacturers of synthetic menthol increased their production capacity. Production sites of two of these manufacturers (BASF and Symrise) are located in Germany. The synthetic menthol competes directly with some of the menthol extracted from natural Mentha Arvensis oil. As a result, German imports of mint oil were partly replaced by synthetic menthol.

Despite the increased offer of cheap synthetic menthol, the market for natural Mentha Arvensis oil has not collapsed. German demand for natural foods and cosmetics, as opposed to synthetic foods and cosmetics, remains strong. In fact, awareness of environmental and social issues becomes more central to consumer choice. As this is a growing trend, producers of food and cosmetics are increasingly looking for natural ingredients to include in their products. Consequently, the global natural cosmetics sector is estimated to grow annually by 5%.

TIP:

- Within the cosmetics market, focus on the market of natural cosmetics. Focus specifically on fragrances and skin care products, as essential oils are most commonly used in these products.

GERMANY MAINLY SOURCES MINT OILS IN THE US, INDIA AND CHINA

The United States, India and China are Germany's major suppliers of mint oils. The United States mainly supply spearmint oil (mentha spicata), whereas India and China mainly supply the cheaper Mentha Arvensis oil. Chinese supplies are under pressure from growing domestic demand for mint oils in China.

Nepal is not yet a significant supplier of mint oils to Germany. In 2016, supplies amounted to less than 1 tonne at a value of € 2 thousand.

TIP:

- Analyse export data of countries that produce similar or competing essential oils. Refer to the section on product definitions for competitors. In many cases, there are more (specific) export statistics available from statistics offices of exporting countries. You could, for example, check the website of Spices Board India.

WHAT REQUIREMENTS MUST YOUR PRODUCT COMPLY WITH?

REQUIREMENTS YOU MUST MEET

Applicability of requirements for export of essential oils depends on their end use. In general, requirements are most strict when the essential oil is destined for use in pharmaceuticals. Requirements are less strict when the essential oil is destined for use in food, aromatherapy or cosmetics.

TABLE 3: REQUIREMENTS YOU MUST MEET TO SUPPLY ESSENTIAL OILS TO GERMANY INDEPENDENT FROM THEIR END USE

Subject	Explanation	Reference
Endangered Species	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. Of the seven species under study, only Spikenard is CITES listed under Appendix II and its export requires a permit. You can find an example of such a permit here.	EU Buyer Requirements for Natural Ingredients for Cosmetics
Documentation	Ensure the buyer can access the following documentation: ■ Technical Data Sheet (TDS) or Specification ■ Certificates of analysis to support the claims of the specification ■ Certificate of origin ■ Safety Data Sheet (Example of a SDS: Caelo)	Workbook for preparing a technical dossier for cosmetic ingredients Workbook for developing Technical Data Sheets, developing Safety Data Sheets and sending samples for natural ingredients for food Safety Data Sheet of Essential Oils from Nepal': available in hardcopy through the Natural Product Research Laboratory of the Government of Nepal
Representative samples	Your sampling method should result in lot samples that represent what you can deliver in terms of quantities, quality and lead time as specified by the buyer and in your technical data sheet	ISO 212:2007 for sampling of essential oils and ISO 356:1996 for preparation of essential oil test samples
Delivery terms	Pay attention to strict compliance with delivery terms as agreed upon with your buyer	EU Buyer Requirements for Natural Food Additives

TABLE 4: REQUIREMENTS YOU MUST MEET TO SUPPLY ESSENTIAL OILS FOR FOOD (INCL. FOOD SUPPLEMENTS) TO GERMANY

Food safety	Food processors must have a food safety management system in place based on HACCP principles. This does not have to be certified.	EU Buyer Requirements for Natural Food Additives
Permitted flavourings	Only permitted flavouring substances are allowed to be used in or on foods. All chemical constituents of an essential oil must be on the Union list of flavouring substances.	EU Buyer Requirements for Natural Food Additives

TABLE 5: REQUIREMENTS YOU MUST MEET TO SUPPLY ESSENTIAL OILS FOR COSMETICS (INCL. AROMATHERAPY) TO GERMANY

EU Cosmetics Regulation	Restrictions on use of substances in cosmetics and requirements for so-called 'Cosmetic Product Safety Reports' and 'Product Information Files'. You cannot make medical claims on cosmetic ingredients. A list of cosmetic functions is available (reference only).	EU Buyer Requirements for Natural Ingredients for Cosmetics
REACH	Essential oils need to be registered with the European Chemicals Agency under REACH (Registration Evaluation and Authorisation of Chemicals) legislation	EU Buyer Requirements for Natural Ingredients for Cosmetics

TABLE 6: REQUIREMENTS YOU MUST MEET TO SUPPLY ESSENTIAL OILS FOR HEALTH PRODUCTS TO GERMANY

Market authorisation	If you claim that your essential oil prevents or treats a medical condition, your product must be approved/authorised by the EU competent authorities. ■ Wintergreen oil: only Methyl Salicylate (synthetic) and Umbellate wintergreen (Chimaphila umbellata oil) are allowed. The latter for homoeopathic preparations. ■ Spikenard oil: not authorised ■ Anthopogon oil: not authorised ■ Juniper oil: only authorised for use in herbal medicine ■ Ginger oil: only the root is authorised for use in herbal medicine and food supplements (i.e. the essential oil is not) ■ Mentha Arvensis oil: only authorised for use in (herbal) medicine ■ Zanthoxylum oil: not authorised	EU Buyer Requirements for Natural Ingredients for Health Products
Good Agricultural and Collection Practices (GACP)	Legally binding for medicinal plants and increasingly common for farming and wild collection of cosmetic ingredients, prior to processing.	EU Buyer Requirements for Natural Ingredients for Health Products
Good Manufacturing Practices (GMP)	The European GMP for medicinal products is based on the guidelines of the World Health Organisation (WHO)	EU Buyer Requirements for Natural Ingredients for Health Products

TIP:

■ Refer to the EU Export Helpdesk for more information on buyer requirements.

COMMON REQUIREMENTS

The requirements listed below are common in Germany. Most of your competitors already comply with these requirements.

TABLE 7: COMMON REQUIREMENTS FOR ESSENTIAL OILS INDEPENDENT OF THEIR END USE

Sustainable business practices	German buyers prefer suppliers that apply sustainability principles in their business. This involves social and environmental responsibility as well as sustainable sourcing practices.	EU Buyer Requirements for Natural Ingredients for Cosmetics
Website	German buyers look for credible suppliers. You can improve the perceived credibility of your company by developing your website accordingly.	EU Buyer Requirements for Natural Food Additives

TABLE 8: COMMON REQUIREMENT FOR ESSENTIAL OILS FOR FOOD (INCL. FOOD SUPPLEMENTS)

Food safety certification	Many German food manufacturers require their suppliers to implement a HACCP-based food safety management system such as ISO 22000.	EU Buyer Requirements for Natural Food Additives
Certificates	Obtain the following certificates to enable German food manufacturers to make their products suitable for all of the population: ■ GMO certificate ■ Halal certificate ■ Kosher certificate	EU Buyer Requirements for Natural Food Additives

TABLE 9: COMMON REQUIREMENTS FOR ESSENTIAL OILS FOR COSMETICS (INCL. AROMATHERAPY)

Good Manufacturing Practices (GMP)	The European Federation for Cosmetic Ingredients has developed a standard for GMP	EU Buyer Requirements for Natural Ingredients for Cosmetics
International Fragrance Association (IFRA) Standards	IFRA Standards form the basis for the globally accepted and recognised risk management system for the safe use of fragrance ingredients	EU Buyer Requirements for Natural Ingredients for Cosmetics

NICHE REQUIREMENTS

Comply with below requirements to gain access to specific market segments.

TABLE 10: NICHE REQUIREMENTS FOR ESSENTIAL OILS INDEPENDENT OF THEIR END USE

Organic certification	A small, but growing number of German buyers requires organic certification. Nepalese suppliers can adapt their production methods to comply with the EU organic standard and gain access to this niche market.	EU Buyer Requirements for Natural Food Additives
Fairtrade/FairWild certification	Certification of fair production is increasingly appreciated by German buyers	EU Buyer Requirements for Natural Food Additives

TABLE 11: NICHE REQUIREMENTS FOR ESSENTIAL OILS FOR COSMETICS

Natural cosmetics	'Natural cosmetics' are often referred to as cosmetics containing a certain minimum amount of natural ingredients. The introduction of standards defining natural cosmetics market has driven the development of private sector standards. The introduction of standards like NaTrue and Cosmos.	EU Buyer Requirements for Natural Ingredients for Cosmetics

QUALITY REQUIREMENTS

Consistent quality is a major concern for German buyers of essential oils. This relates to physical properties, chemical composition and the prevention of contamination by foreign materials, including adulterants. Exporters must know the properties of their product. They are responsible for quality management, which requires close cooperation with their suppliers, the growers.

The independent International Organization for Standardisation developed standards for many essential oils.

- ISO standard 16928:2014 for ginger oil *(Zingiber officinale Roscoe)*
- ISO standard 21390:2005 for wintergreen oil *(Gaultheria yunnanensis)*
- ISO standard 8897:2010 for juniper oil *(Juniperus communis L.)*
- ISO standard 9776:1999 for Mentha Arvensis oil *(Mentha arvensis L. var. piperascens Malinv. and var. glabrata Holmes)*

ISO standards are not available for anthopogon oil, spikenard oil and zanthoxylum oil.

PHYSICAL PROPERTIES AND CHEMICAL COMPOSITION

- Raw plant materials are harvested from different areas using different procedures. For example, the specific plant variety, environmental conditions (e.g. climate), and the time of harvesting all have an influence on product quality. Variation in physical properties also means the essential oil content and chemical profile will vary.
- Major chemical constituents of the seven essential oils under study are identified in the table below. The exact chemical composition depends on various factors such as cultivar, growing conditions and processing method.

TABLE 12: INDICATIVE CHEMICAL COMPOSITION OF SEVEN ESSENTIAL OILS

Oil	Major chemical constituents
Wintergreen oil	Methyl salicylate (preferably >96%)
Spikenard oil	b-gurjunene (21.9%), valerana-4,7(11)-diene (6.1%), a-guaiene (4.9%), valeranone (4.1%), cyperene (3.4%), seychellene (3.2%), 7-epi-a-selinene (3.0%)
Anthopogon oil	α-pinene (26.3%), β-pinene (11.2%), limonene (9.6%), cis- β-ocimene (6.0%), δ-cadinene (8.4%) and α-muurolene (4.6%)
Juniperus indica leaf oil	sabinene (25.1%), trans-thujone (14.9%), trans-sabinyl acetate (15.3%), terpinen-4-ol (8.8%), myrcene (2.8%)
Ginger oil	Geranyl acetate (19%), zingiberene (13-32%), geranial (8-20%), β-sequiphellandrene (11%), arcurcumene (10%)
Mentha Arvensis oil	Menthol (63-79%), menthone (4-13%), iso-menthone (3-8%), limonene (1-4%) DMO contains 40-50% Menthol, l-Menthone 20-35%
Zanthoxylum oil	Linalool 40-60%, Limonene 20-40%, Methyl Cinnamate 10-15%

Buyers often also determine the quality of essential oils on a more subjective basis, considering odour and taste. In a few cases, buyers also consider the colour and viscosity. For example, they consider essential oils with off-notes or weak odour as products with inferior quality. Overheating is a potential cause of off-notes and adulteration is a potential cause of weak odour.

Removing allergens from essential oils, while keeping them natural, offers opportunities for innovation and makes them "safer". Consumers, cosmetic producers and regulators in Germany are increasingly demanding safe products sourced in known, verifiable supply chains, demanding proof of safety of essential oils for fragrances.

TIPS:

- Information on the chemical profile by (accredited) laboratories of the oil is important to buyers. Work together with a local university department to test your essential oil. They can help determine the chemical profile of the oil to be included in your product documentation such as Product Factsheet and specifications.
- Prepare a feasibility study to determine whether your oil has sufficient potential in the market based on its quality. Your price must reflect the value of your product, which largely depends on its chemical composition. Your feasibility study will show if the chemical composition of your product matches with buyer expectations for the specific raw material variety.
- If you can identify or specify your ingredient in detail, for example on origin or properties; this can add value in terms of both marketing and product specifications.

QUALITY MANAGEMENT

Harvesting and post-harvesting practices (including processing) also affect quality of essential oils. Exporters are responsible for the product they export and must often play an active role in raw material production.

TIPS:

- Minimise time between harvesting of raw plant materials and distillation to prevent quality deterioration and loss of flavour/aroma. Depending on the type of raw material, it must be processed within hours or days.
- Ensure that plants used for distillation are fresh and cleaned.
- Apply Integrated Pest Management (IPM) or purchase raw materials from pesticide-free areas to comply with EU regulations on Maximum Residue Levels for pesticides. Buyers will analyse the oil for these residues.
- Prevent contamination by sand and undesired plant parts by training collectors to cut properly, and by keeping facilities, storage rooms and equipment clean. In addition, essential oils should be kept at a moderate temperature to prevent quality deterioration.
- Minimise significant discrepancies in quality by following strict grading and sorting standards for raw materials selection.
- Standardise and minimise significant variations in your product's quality by closely monitoring harvesting practices through regular inspections and by blending essential oils from different harvests (e.g. early and late harvests, or different areas). Always make sure that the quality of the standardised essential oil (blend) matches the requirements of your buyer. If you produce menthol from your mentha arvensis oil, grade your products by shape and size. In India, menthol is graded as large crystals (bold), medium crystals, small crystals, and flakes as powder. The largest crystals fetch the highest prices.
- Be clear on what quality you can supply continuously. Once you develop a quality standard, you must be able to maintain that same level of quality, also when up scaling your production.
- Use extraction methods (temperature, pressure, time) consistent with the buyer's preferences and specifications.

- Use the ISO standard to assess your product's quality. If your product does not comply with the ISO standard, German buyers are unlikely to accept your product.
- Prevent adulteration and contamination by foreign materials to preserve your reputation. Importers regularly analyse products for adulteration.
- To improve the quality of essential oils, consider incentives when you train collectors.

LABELLING REQUIREMENTS

Labelling of products for export is mandatory and mainly serves traceability and safety during transport and storage.

As an exporter, facilitate traceability of individual batches with markings on each container and registration in an administrative 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

For **organic** certified essential oils specifically: add Name/code of the inspection body and certification number.

Suppliers of hazardous chemical substances to Germany must comply with Regulation for Classification, Labelling and Packaging of chemicals to ensure that hazards presented are clearly communicated. Suppliers must include the relevant hazard symbols (examples shown below), risk phrases and safety phrases.

TABLE 13: RELEVANT HAZARD INFORMATION FOR THE SEVEN SELECTED ESSENTIAL OILS

Oil	Applicable risk phrase	Risk symbol	Safety phrase
Wintergreen oil	R22, R36-R38, R43	Xn, Xi	S2, S3, S7, S13, S15, S20. S23 – S26, S28, S29, S36, S37, S39, S45, S51, S60, S62-S64
Spikenard oil	R10, R65, R90,	Xn	S62
Rhododendron oil	R10, R22, R36-R38, R44	Xn, Xi, F	S2, S3, S7, S13, S15, S16, S20, S23-S29, S33, S36, S39, S41, S43, S45, S51, S60, S62-S64
Juniper berry oil	R10, R43, R50-R53, R65, R66	Xn, N	S25, S37, S61, S62
Ginger oil	R36 - R38	Xi	S2, S3, S7, S13, S15, S23 – S26, S28, S29, S36, S37. S39, S45, S51, S60, S63, S64
Mentha Arvensis oil	22, R38, R43, R51/53	Xn, Xi, N	S24, S37, S61
Zanthoxylum oil	Hazard analysis may not have been done yet by any company. Trade is likely to be exempt from REACH due to small quantities (<1 tonne).		

Refer to the Commission Directive 2001/59/EC for an elaborate definition of the flammability, risk phrases and safety phrases, of the abbreviated symbols and of the phrases above. The Directive provides technical information for the implementation of the EU regulation on classification, labelling and packaging.

FOOD GRADE CONTAINERS

PACKAGING REQUIREMENTS

- ISO standard 210:2014 provides general rules for packaging, conditioning and storage of essential oils.
- Always consult your buyer for specific packaging requirements.
- Check in the HazMat database if your essential oil is hazardous and has a UN number and use UN-approved packaging. For more information, check the details provided by the European Federation of Essential Oils on the transport of dangerous goods.
- Ensure the preservation of the quality of essential oils by:
  - Using containers of a material that does not react with constituents of the oil (e.g. lacquered or lined steel, aluminium, galvanised iron).
  - Cleaning and drying the containers before filling them with essential 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 for essential oil).
- Store the containers in a dry, cool place to prevent quality deterioration.
- Organic essential oils should remain physically separated from conventional essential oils

WHAT COMPETITION DO YOU FACE?

MARKET ENTRY

The growing German flavours and fragrances market still offers room for new entrants. Especially for suppliers which differentiate themselves from the competition with an attractive chemical profile, a higher quality or an interesting provenance story. The latter will become particularly interesting in the long-term. Nonetheless, new entrants face considerable barriers:

TRADE IN NICHE OILS IS NOT BOUND TO MINIMUM QUANTITIES

In general, the minimum quantities required by buyers are becoming increasingly high, as they aim to reduce overhead costs per unit. However, except for Mentha Arvensis oil, the seven oils in this study are niche products. Trade in these oil is small compared to trade in commodity oils, such as peppermint oil. Trade in niche oils, especially when they are scare, is not bound to minimum quantities. Sometimes, 1 litre is sufficient to send it by airfreight.

TIPS:

- Some scale is required to export to Germany. For example, the minimum quantity interesting for German importers for wintergreen oil, ginger oil and Mentha Arvensis oil is 1 tonne. The minimum quantity of Jatamansi oil and Zanthoxylum oil is about 1 kg.
- Use the potential of your domestic market to grow to the scale required for export to Germany.

STRICT PRODUCT SPECIFICATIONS

Buyer expectations of services from suppliers are increasing. German buyers are particularly demanding in terms of services. They expect suppliers to understand their buyer's product specifications and adapt their production processes if product specifications of buyers or production conditions change. For this reason, buyers prefer long-term trade relationships and will only switch to new suppliers if those offer significantly better products and/or services.

TIPS:

- Optimise your supply chain and production process for quality consistency and obtain a certificate for food safety management (e.g. ISO 22000) and quality management (e.g. ISO 9000).
- Document your production process for reference, including: temperatures, pressures, extraction times, etc. This enables traceability of deviations in product specifications.
- Build long-term trade relationships to evade competition with other market entrants in the spot market.

DETAILED DOCUMENTATION

European legislation such as REACH and CLP places a great administrative burden on German essential oils importers. Some smaller importers, such as the former importer Eramex, spend up to 20% of their time on administration to comply with European Union legislative requirements. In order to decrease this burden, buyers increasingly require their suppliers to provide more information on their products. In practice, the extra overhead costs for administration have made the import of small quantities of essential oils unattractive. This complicates market entry for new, smaller exporters in developing countries.

TIPS:

- Do not underestimate the value of elaborate documentation for successful entry to the German market. Some German buyers work according to higher quality standards than their peers in other European markets.
- See CBI's 10 tips to find buyers on the European market for natural ingredients for cosmetics or CBI's 9 tips for finding buyers in the natural food additives sector to learn how to become more successful in market entry.

PRODUCT COMPETITION

In general, essential oils continue to face strong competition from synthetic substitutes. German manufacturers can synthesise many of the chemical constituents of essential oils. For example, BASF (Germany), Symrise (Germany) and Takasago (Japan) had a production capacity of approximately 19 thousand tonnes of synthetic menthol in 2013. BASF is even planning to establish a new site for production of L-menthol (main component of menthol) in Malaysia in 2017.

Synthetic ingredients are generally cheaper and more reliable in terms of supplies, chemical profile and quality consistency. Despite these advantages of synthetic ingredients, demand for natural essential oils remains strong and sometimes even grows.

The natural trend, as described earlier, stimulates German manufacturers of diverse products to use natural essential oils instead of synthetic substitutes. Some manufacturers even substitute synthetic products by natural products. For example, in the food industry, manufacturers aim for 'clean labels'. These do not contain names of ingredients which may be perceived as chemicals by consumers.

Essential oils are generally difficult to replace due to their unique chemical composition. Only in few cases, German manufacturers consider substituting an essential oil by a product with similar characteristics. In the case of Zanthoxylum oil, manufacturers can sometimes use pink pepper oil (Schinus mole) as a substitute. Pink pepper oil has some similarities to Zanthoxylum oil, but has a different mouthfeel (less tangy).

In the case of wintergreen oil, manufacturers can sometimes use birch bark essential oil (Betula lenta). However, sustainability issues associated with birch trees constrain availability and prices of birch bark oil are higher.

TIPS:

- Promote the fact that your product is natural.
- Address the weaknesses of your product compared to its synthetic equivalent, such as quality consistency and quantities. When specifications of your essential oil differ from previous supplies, clearly communicate to your buyer what caused the differences (e.g. quality of crops).
- Establish long-term trade relationships with your own suppliers in order to secure stable supplies.

COMPANY COMPETITION

Until recently, many European buyers, particularly in Germany were extremely price sensitive and switched easily to cheaper suppliers. However, since the emergence of China and other developing countries as markets for essential oils, the market situation is changing radically. Former net-exporters of essential oils are turning into net-importers. The amount of essential oils available on the international market decreases. As such, Europe and the USA are no longer the only destinations for suppliers.

German buyers have to respond to this trend by investing more resources in their existing trade relationships. They also search for new origins and possibilities for expansion in net-exporting countries such as Nepal. They are diversifying their sources to mitigate the risk of losing existing suppliers to other buyers who are competing for the same raw materials. They become particularly appreciative of suppliers who invest in sustainable supplies and a thorough understanding of their buyer's interests.

In the highly competitive market for Mentha Arvensis oil, Nepalese suppliers can expect particularly fierce competition from India. India dominates this market with mentha arvensis covering an area of some 300,000 hectares.

Indian farmers harvest on average 20-25 tonnes per hectare of green Mentha Arvensis in two cuttings. This yields 125-150 kg of arvensis oil per hectare (Source: IFEAT San Francisco proceedings, 2013). Nepalese suppliers must achieve similar yields to be price competitive unless they can save on distillation or labour costs. Labour costs in India amounted to USD 110 per month in 2012, compared to USD 190 per month in China.

Competition on price is particularly strong in markets for essential oils from conventional production systems. Organic markets are generally less competitive and offer more room for suppliers with relatively high costs. However, in markets for commodity oils such as Mentha Arvensis oil, competition in the organic segment is fierce as well and organic certification is not sufficient to avoid price competition.

TIPS:

- Point out to buyers that availability of essential oils from traditional sources is threatened by domestic consumption and that Nepal can become a major alternative source of essential oils on the long-term. Explain about sector development in Nepal, including improvements in production capacity.
- Gain a better understanding of your buyers' needs and take more responsibility for your products in order to comply with expectations. For example, cooperate with other stakeholders in your sector to establish a laboratory to learn about the properties of your products.
- Identify high yielding varieties of Mentha Arvensis to improve your price competitiveness. Establish a breeding programme together with other stakeholders to develop even better performing varieties for the future.
- In the case of Mentha Arvensis oil, Nepalese suppliers will need more than organic certification to distinguish themselves from the more price competitive Indian suppliers. Although most Indian suppliers focus on the high-volume conventional market and save on costs of organic certification to maintain price competitive, there are still many price competitive suppliers of organic Mentha Arvensis oil.

THROUGH WHAT CHANNELS CAN YOU GET YOUR PRODUCT ON THE MARKET?

MARKET SEGMENTS

Different applications

Cosmetics and foods are the main market segments for essential oils. Health products form a small segment for juniper berry oil and dementholised mentha arvensis oil. Tables 1 and 2 provide details about specific applications in the different segments. Depending on the type of essential oil, either the cosmetics market or the food market is more important. Furthermore, each buyer has specific requirements independent of their segment.

Essential oils for cosmetics

In the cosmetics industry, essential oils are used in perfumes or in fragrance materials to provide scent to other cosmetics products. They can be used both as base notes and as fixatives. In other cases essential oils are used to provide a particular aroma-therapeutical property to a product. Many essential oils can only be used in limited concentrations in cosmetic products according to EU legislation.

Essential oils for aromatherapy

Manufacturers of aromatherapy products use essential oils for their therapeutic effects. As most of these effects are not scientifically proven, manufacturers can only use functions such as ‘soothing’ or ‘calming’ to promote their products. European legislation for the medicines market only allows the use of a few essential oils for medicinal applications. See tables 1 to 7 for details. In aromatherapy products, concentrations of essential oils in aromatherapy products reach up to 100%.

Essential oils for flavouring food

The food industry uses essential oils as ingredients for flavourings. In general, the food industry uses very little expensive essential oils such as spikenard oil. Particularly the soft drinks industry, the largest user of essential oils within the food segment, uses very little expensive essential oils. Nonetheless, high prices of some essential oils do not always matter much to food and beverage manufacturers. As they usually apply flavourings in concentrations of less than 1% and the expensive essential oil may only comprise a small fraction of the flavouring, its share in the cost of the end-product can be negligible.

TIPS:

- Analyse market segments for food, cosmetics and health products to select the one that is most relevant for your specific product. You can find information on market developments in the different segments in the chapter on trade statistics. The chapter on buyer requirements provides buyer requirements per segment.
- Research the specific properties of your oil. Cosing lists the properties registered for several essential oils for application in cosmetics; use these in your promotional material. Make sure not to use health claims!
- Write a passionate story about your product for promotion in the aromatherapy market. In this market segment, consumers are particularly interested in stories behind the essential oils.

Sustainable essential oils

Organic, Fairtrade and otherwise (certified) sustainable essential oils form a growing niche market in Germany. Until recently, there was virtually no market for organic certified essential oils, because food manufacturers can use conventional essential oils in organic products. European Union legislation allows the use of ingredients from conventional production if it constitutes less than 5% of the end-product and the organic certified equivalent is not commercially available.

As more essential oils producers have obtained organic certificates, organic food manufacturers are more often obliged to use organic certified essential oils.

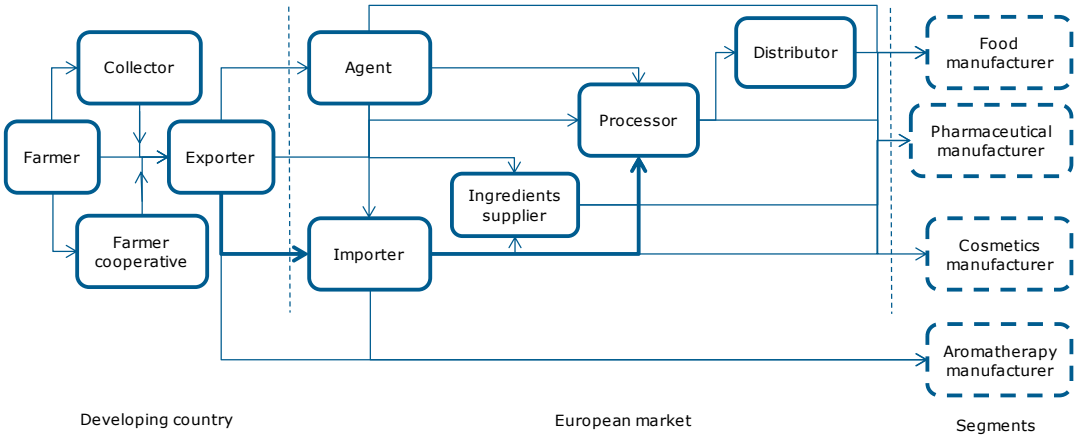
Buyers do not always require certification of sustainability. Some buyers will audit suppliers themselves to verify claims regarding sustainability.

TIPS:

- It is important to focus on the story behind sustainable certification and to give adequate and honest information to your buyers. In your promotional material, stress the social benefits to local communities of your production.
- If you want to obtain a FairWild or Fairtrade certificate, check the requirements of the FairWild standard or Fairtrade standard. Always discuss these opportunities with your buyers.
- Discuss the opportunities for organically certified essential oils with your potential buyers before launching into a product development plan to source organic raw material.

MARKET CHANNELS

FIGURE 5: MAJOR MARKET CHANNELS FOR ESSENTIAL OILS



GERMAN TRADERS PLAY A LARGE ROLE IN EUROPEAN ESSENTIAL OILS TRADE

Essential oils commonly pass many different intermediaries before they reach the consumer. Agents, importers, ingredients suppliers and distributors add value to the product through their logistics services, while processors and manufacturers add value by transforming the product. The intermediaries may be located in different European countries. This implies that your product may pass through different countries before reaching the consumer.

Germany re-exports a considerable amount of essential oils in addition to exports of domestically produced essential oils. In 2016, German (re-)exports of essential oils (other than those of citrus fruit and mint) amounted to € 52 million/1.2 thousand tonnes.

The exports increased on average by 10% annually in the period 2012-2016. German (re-)exports of essential oils are predominantly destined for other EU markets (a share of 69% of total German export value). Destination countries of German exports in terms of value include the Netherlands (13% of total German export value), France (11%), Switzerland (10%) and Austria (9%).

In 2016, German (re-)exports of mint oils (other than peppermint) amounted to € 8 million/ 0.3 tonnes. In the period 2012-2016, these exports remained relatively stable. The main destinations are Slovakia (22% of German exports), Turkey (9%), Jordan (8%), Poland (8%) and Italy (7%).

TIPS:

- Consider supplying German importers if you target either the German market for essential oils or surrounding countries, as Germany importers also re-export their essential oils.
- See the section on market channels for more information on the roles of German traders in the essential oils market.

STRONG ROLE OF PROCESSORS

German food and cosmetics manufacturers continue to purchase most of their flavourings and fragrances from European processors, many of them in Germany. They prefer sourcing in Europe over purchasing directly from suppliers in developing countries such as Nepal. They do so for several reasons:

- They increasingly need more complex flavours and fragrances to differentiate their products from the competition. They rely on processors to do research and develop new products, such as unique low-cost flavours and fragrances which retain their functional properties under specific conditions (e.g. heat and acidity).
- They increasingly demand tailor-made products for use in very specific product formulations. This requires close collaboration with processors.
- They require high quality consistency, which is often achieved through fractionation and isolation of chemical constituents of essential oils. These processes require high-tech equipment and skilled staff.

In contrast to their role in markets for flavour and fragrance applications, processors are often not involved in essential oils trade for aromatherapy applications. Exporters of essential oils for aromatherapy often supply the market more directly.

STRONG ROLE OF IMPORTERS

Importers, while consolidating, remain the main point of entry for many essential oils, especially for low-volume oils such as Spikenard oil. Their major functions in the value chain:

- Lowering costs to end-users by importing relatively large volumes to achieve economies of scale and selling smaller quantities.
- Offering a large range of essential oils to their buyers. This is convenient for the latter who do not need to purchase from different suppliers.
- Administration of trade in compliance with EU legislation, such as REACH.
- Researching potential applications of niche oils such as zanthoxylum oil and introducing them to respective manufacturers.

In Germany, the number of essential oils importers is relatively high compared to other European countries. You can find many of them on the website of the German association of flavouring manufacturers (DVAI). Many of them are familiar with commodity oils such as ginger oil and Mentha Arvensis oil, while only a few are familiar with niche oils such as Zanthoxylum oil.

Importers with an interest in niche oils such as zanthoxylum oil and jatamansi oil are generally distinguishing themselves from their competition with a wide product range. They are more interested in the story behind a niche oil than importers with a focus on commodity oils, as these stories can help to convince potential buyers of the unique value of niche oils. Claus Nitsche and Roeper are examples of importers with niche oils in their product range.

Such stories are also interesting for buyers who profile themselves as suppliers of fair trade and/or environment-friendly products. In many cases, these buyers require Fairtrade, FairWild, organic or similar certification to substantiate the story. To illustrate, German cosmetics manufacturer Laveral "offers … ingredients … for sustainable, ageless beauty in 100% certified natural cosmetics.".

TIPS:

- Benefit from the experience and knowledge of specialised German importers instead of approaching end-users directly. Especially for exporting specialised products, traders are the most suitable distribution channels.
- Provide detailed technical data to importers to enable them to inform their buyers on potential applications. Refer to the section on product specifications and the buyer requirement on product documentation for the type of technical data that importers require.
- Visit or exhibit at Food Ingredients Europe in Frankfurt, Germany to meet potential German buyers in the flavouring market.
- Visit or exhibit at In-Cosmetics (17-19 April 2018, Amsterdam) or Vivaness at Biofach (14-17 February 2018, Nuremberg) to meet potential buyers in the fragrances, cosmetics and aromatherapy markets, including German buyers.

WHAT ARE THE END MARKET PRICES?

Prices of essential oils differ widely. A prominent factor determining the price is the oil yield of the raw material. For example, compared to the other essential oils under study, ginger root distillation yields are relatively high, ranging between 2-4%. Contrarily, distillation of ***Juniperus communis*** yields only between 0.8-1.6% of essential oil. The diverging oil yield is also reflected in the prices of the oils.

TABLE 14: PRICES OF SELECTED ESSENTIAL OILS FOR WHICH PRICES COULD BE RETRIEVED

Essential oil	Price indication	Conditions
Mentha Arvensis oil	USD 25/kg	crude, organic, CFR, India, tons lots, 2017
Mentha Arvensis oil, DMO	€ 18/kg	Conventional, CFR, India, 2017
Organic Mentha Arvensis oil, DMO	€ 21/kg	CFR, India, 2017
Zanthoxylum oil	€ 60/kg	FOB; small lots of 5-15 kg in 2012
Ginger oil	€ 160/kg	September 2014
Juniper berry oil	€ 210–450/kg	2014

The European wholesale price of Mentha Arvensis oil was estimated at € 30 /kg for small lots of 5-15 kg in 2013 and the price of zanthoxylum oil amounted to € 60 /kg (FOB) for small lots in 2012. The price of ginger oil amounted to € 160 /kg in September 2014, compared to prices of € 210-450 /kg for Juniper berry oil (COSSMA, 2014).

Prices of raw materials are another determining factor. Changes in the raw material's availability can have a significant influence on the price of the essential oil. This is for instance evident from recent developments in the ginger market. Increased demand for fresh ginger in the food market negatively affects availability of roots for distillation and drives prices of ginger oil upwards.

Natural calamities, poor harvests, changing regulations or poor harvest management can also cause raw material supply constraints and subsequent price increases. In Nepal, rising labour costs also add to rising raw materials costs.

Other factors influencing the price of essential oils include chemical properties of the oil and purity. Buyers pay higher prices for products complying with strict standards and a high purity.

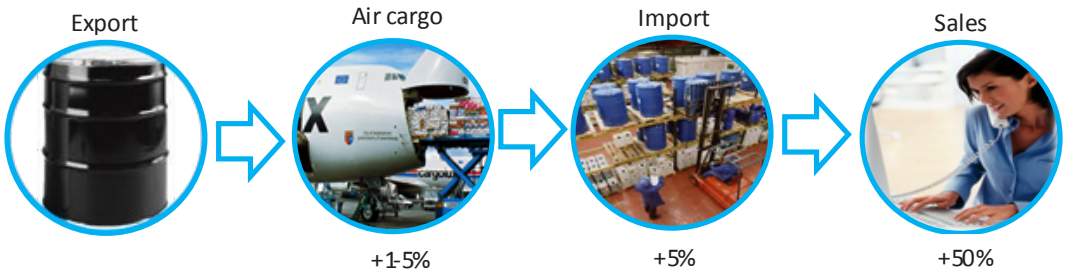
TIPS:

- Monitor harvests of raw materials in major production countries to anticipate price developments for your specific essential oil. You may request such information from importers. Additionally, anticipate the possibility for raw material availability constraints in the near future. Regularly monitor availability constraints via helpdesks, such as the Red list of the International Union for Conservation of Nature (IUCN) and the CITES list.
- 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. Take competing products on the market into account.

PRICE BREAKDOWN FOR ESSENTIAL OILS

The following price breakdown shows which costs and margins are applied to essential oils before they reach the end user.

FIGURE 6: PRICE BREAKDOWN FOR ESSENTIAL OILS, MARK-UPS IN %



Source: Profound 2014

If agents are involved, they typically receive a commission of a few (2-5) percent. However, their actual profit margin strongly depends on volumes sold and gross margin. They will normally lower their gross margin for big volumes.

Importers add a margin of up to 25-100% to the product depending on the activities undertaken, such as testing, stocking and rectification.

TIP:

- Agents are particularly interesting if you do not have a strong sales network. You can look for commercial agents on the website of the Federation of German Commercial Agents and Distributors (CDH). However, once you have established a trade relationship through an agent, you cannot establish a direct relationship with the buyer anymore. The sales network of the agent is protected by law.

Please review our disclaimer.

This survey was compiled for IPD by ProFound – Advisers In Development in collaboration with sector expert Peter Meschede