

# What is the demand for natural ingredients for health products on the European market?

Increasing consumer demand for natural supplements and an ageing population make Europe a promising market for natural ingredients. European companies are launching new natural health products, some replacing synthetic with natural ingredients in product formulations. European consumers are also receptive to trying complementary and alternative medicines, which is also stimulating demand for natural ingredients.

These trends are expected to continue in the future. Demand for pharmaceuticals, supplements, as well as complementary and alternative medicine products are forecast to increase in the European market. Researchers expect the market for supplements, complementary and alternative medicine to increase at healthy growth rates over the next few years.

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## 1. Sector description

In the context of this report, health products are defined as substances including vitamins, minerals, supplements, traditional medicines, herbal medicines and homeopathic preparations. Natural ingredients used in health products can have functional and active properties.

This report analyses demand for natural ingredients for health products, including essential oils, botanicals, such as turmeric, baobab, moringa, açai berry, aloe vera, seaweeds and plant-based proteins.

## 2. What makes Europe an interesting market for natural ingredients for health products?

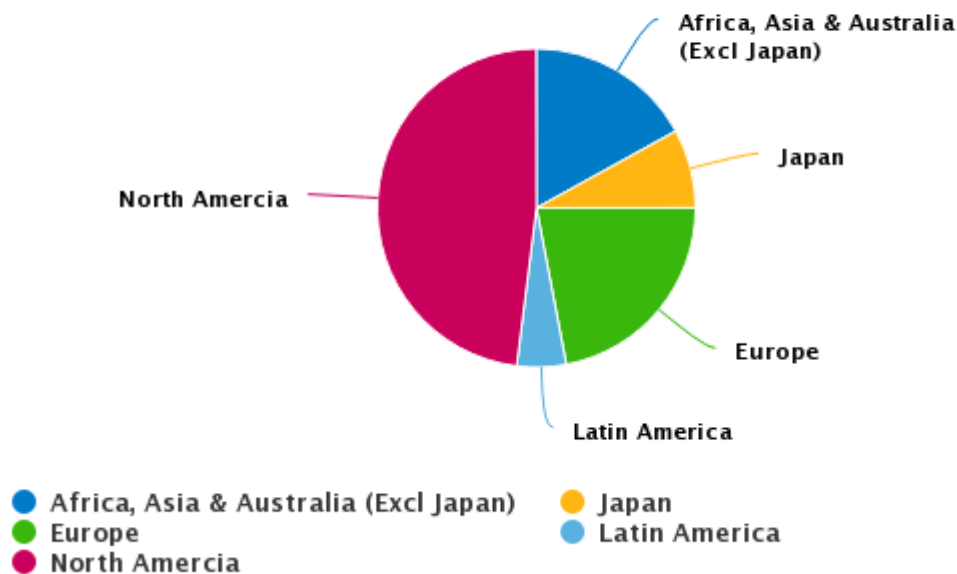
Europe is a significant producer, exporter and consumer of pharmaceuticals. It has an important market for pharmaceuticals, nutraceuticals, complementary and alternative medicine products. The market is forecast to grow partly because Europe has an ageing population. Consumer demand for healthier and more natural products with better efficacy are encouraging European companies to invest in research and development and look for natural ingredients.

There are many opportunities in the European market for suppliers of natural ingredients from developing countries. Demand for natural ingredients is increasing, including those from developing countries, especially because many such ingredients have functional and unique properties.

The [world's pharmaceutical market](#) was valued at €754 billion in 2017. Chart 1 shows that Europe has the second largest pharmaceutical market in the world, with a 22% share, following North America, which has 48%, while Japan is third with an 8% share.

According to the European Federation of Pharmaceutical Industries and Associations (EFPIA), the [European pharmaceutical market](#) was worth €199 billion in 2016. Production of the pharmaceutical industry in Europe reached €248 billion in the same year. Europe is also a significant exporter of pharmaceuticals: [€373 billion in pharmaceutical exports in 2016](#).

Chart 1. The Global Pharmaceutical Market, 2016



Source: IQVIA (MIDAS)

The [European pharmaceutical market](#) is expected to grow at a healthy rate in the next five years, projected to reach approximately €206 billion in 2022. The market is mature, showing market growth rates of approximately 3% per year.

Applications of natural ingredients in pharmaceuticals are increasing. The main reasons behind this trend are increasing availability, relatively low costs, lower toxicity and fewer side effects of natural ingredients.

However, the use of natural ingredients in pharmaceuticals also has one major drawback: safety. The risks of microbial and heavy metal contamination are higher because the quality of natural ingredients depends on crops, which are influenced by soil quality, environmental conditions and climate.

Natural ingredients are used in pharmaceuticals for their functional and active properties. For example, they can be used as lubricants, binders, coating agents, preservatives, solvents, colouring agents, emulsifiers and flavours.

The applications of natural ingredients in pharmaceuticals are expected to expand in the coming years. Consumers are demanding more natural products, including natural ingredients in medicine and pharmaceuticals.

### Tips:

For more information on the European pharmaceutical market, visit the site of the [EFPIA](#).

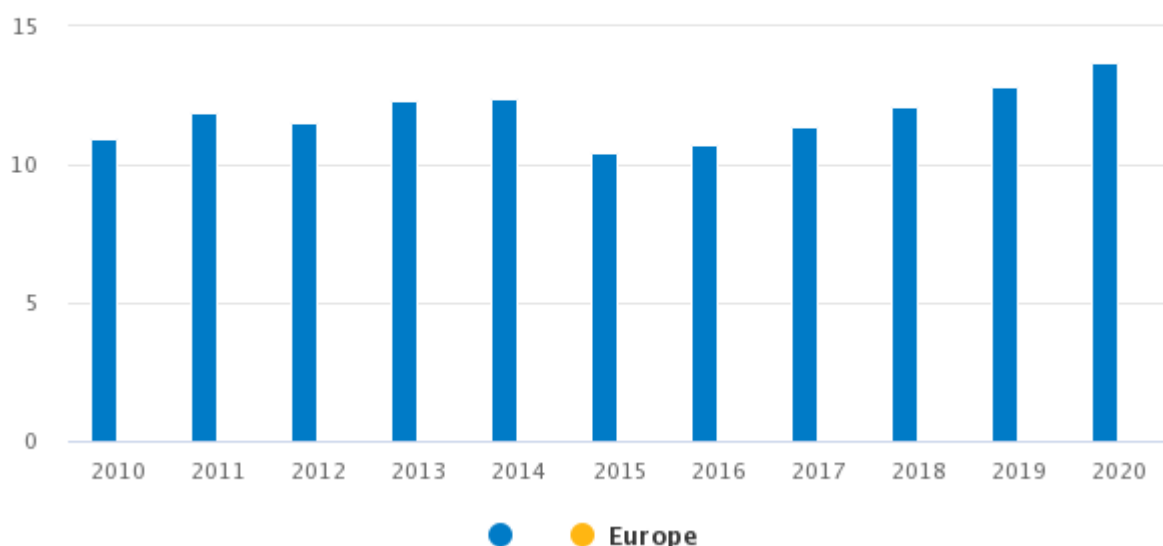
For more information on the trade of medical plants, visit the International Trade Center site [INTRACEN](#).

Learn more about trends and [common illnesses in Europe](#). This will help you decide what kind of ingredients to supply to the European market. Use this information when approaching European buyers.

Europe's ageing population will increase the rate of chronic disease in the future. This trend is expected to stimulate demand for pharmaceuticals. At the same time, consumers are looking into natural products to improve their general well-being and prevent illness.

**Chart 2. Growth forecasts for the European vitamin and supplements market**

in € billion



Source: Statista

Chart 2 shows revenue forecasts for the vitamin and supplements market in Europe, which was growing until 2015 when it experienced a 16% decline. Growth rates have rebounded since then and revenues are forecast to reach €13.7 billion in 2020.

According to [Transparency Market Research](#), the global homeopathy products market was worth US\$3.8 billion in 2015. The market is projected to grow by a compound annual growth rate of 18.2% to reach US\$17.4 billion by 2024. The European homeopathy products market was valued at US\$2 billion in 2016.

This data tells us that there are good prospects for suppliers of natural ingredients to health products in Europe. The consumer market in Europe is growing at a steady rate. European consumers tend to have relatively high disposable incomes. Increasing corporate investment in innovation and R&D makes Europe an attractive export destination for natural raw materials.

### Tips:

Show your buyers how your ingredients can help consumers to improve their health and well-being. Focus on the nutritional or health aspects of your ingredients when supplying active ingredients. Do not make medical claims. For more information on EU regulations on claims, visit the [European Commission](#) website.

See the CBI study on [regulatory requirements for natural ingredients for health products](#), which provides an overview of regulations for exporting natural ingredients for health products to Europe.

### 3. Which European markets offer most opportunities for natural ingredients for health products?

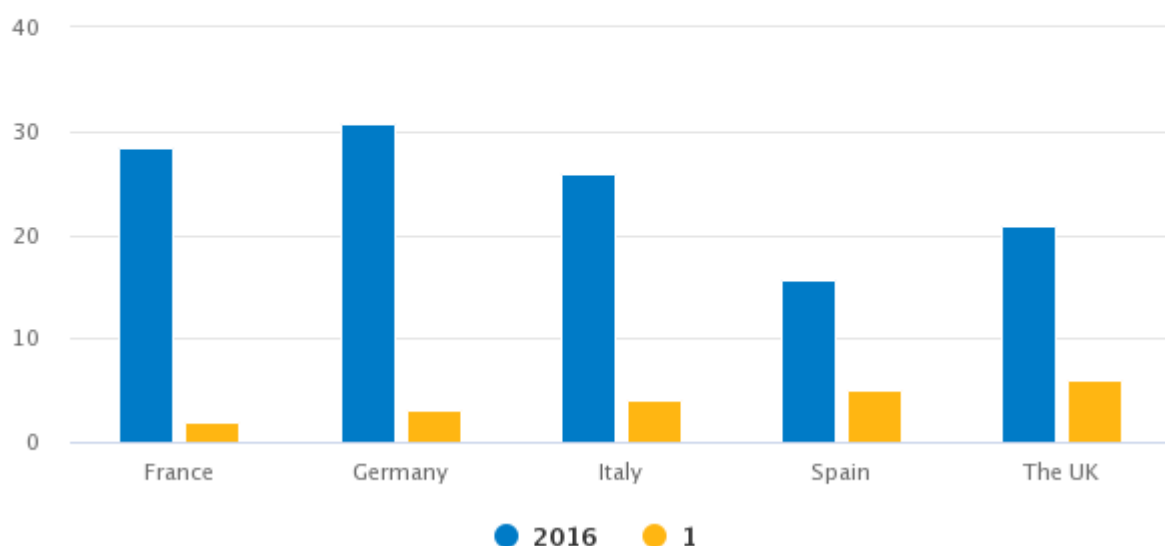
Western European countries such as Germany, Italy, France, Switzerland, UK and Spain are the most attractive country markets for suppliers of natural ingredients for health products. These countries have the biggest consumer markets and large companies that use natural ingredients to make health products.

Switzerland is the most important manufacturer of pharmaceuticals and supplements in Europe. Italy, Germany, the UK, France and Spain are also leading pharmaceutical manufacturers in Europe. These countries offer the most opportunities because of large consumption and production of pharmaceuticals in these country markets.

Europe has the second largest market size for pharmaceuticals. Chart 3 shows the leading country markets for pharmaceuticals in Europe. Germany's market was valued at €30 billion in 2016, followed by France, then Italy at €28 billion and €26 billion respectively. The UK market was valued at €21 billion, while Spain ranked fifth with a market worth €16 billion.

**Chart 3. Leading Country Markets for Pharmaceuticals in Europe, 2016**

in € million



Source: EFPIA

These countries are traditionally the largest consumer markets and are expected to remain the largest in terms of value in the future. Europe is also a significant producer of pharmaceuticals. Table 1 shows the output of Europe's pharmaceutical industry by country.

Switzerland is the largest producer of pharmaceuticals in Europe. In 2016, the output of its pharmaceutical industry reached €46 billion. Other significant producers of pharmaceuticals are Italy, Germany, the UK, Ireland and France. These six countries account for about 67% of the total European output.

Table 1. Leading country producers of pharmaceuticals in Europe, 2016, in € million

COUNTRY	MILLIONS (IN EUROS)
Switzerland	46,280

Italy	30,010
Germany	29,197
UK	22,445
Ireland	19,305
France	19,040
Spain	15,144
Denmark	14,219
Belgium	12,821
Sweden	7,302
Netherlands	6,180
Turkey	4,439
Russia	4,228
Hungary	3,050
Poland	2,893
Austria	2,737
Slovenia	1,936
Finland	1,721
Portugal	1,686
Greece	895
Norway	745
Romania	655
Croatia	615
Cyprus	180

Bulgaria	121
Latvia	120
Iceland	89
TOTAL	248,053

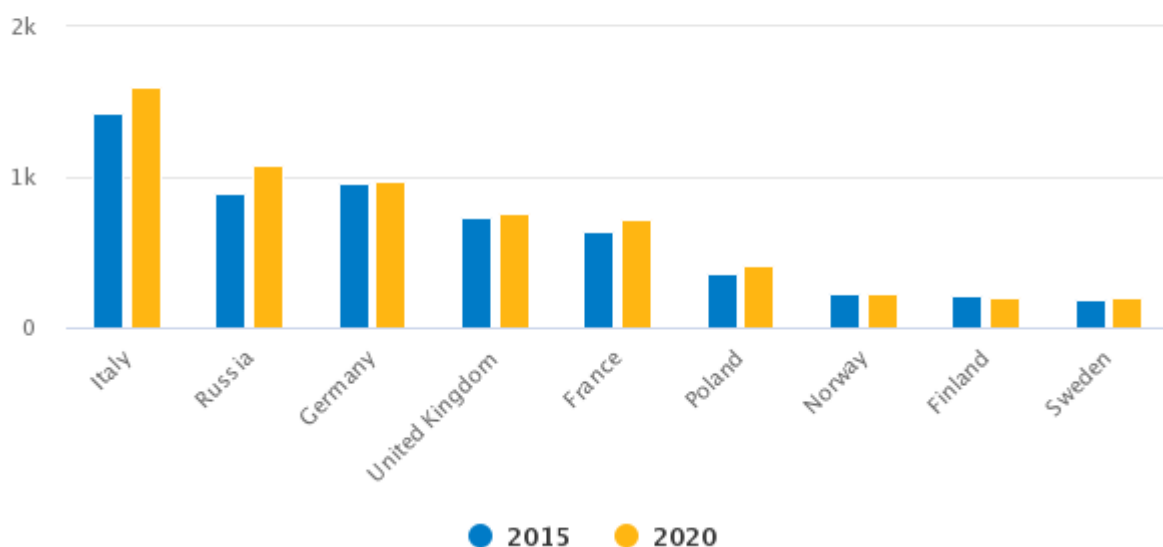
Source: EFPIA

Natural ingredients are also used in the dietary supplements sector. Indeed, many consumers have traditionally bought supplements for their natural ingredients, since they offer a potential alternative to allopathic medicines.

Even though supplements are consumed by consumers of all ages, most demand is coming from the baby boomer generation, born between 1946 and 1964. Research shows that this generation is most [concerned with both origin and safety of ingredients in supplements](#). Approximately 71% of European shoppers consider that the most important feature when purchasing supplements is that they contain no preservatives.

**Chart 4. Value of dietary supplements per country markets in Europe**

in € million



Source: Statista

Western European countries have [the most important markets for dietary supplements in Europe](#), including Italy, Germany, the UK and France. Central and Eastern European countries are not that significant and therefore not promising markets for exporters of natural ingredients.

Table 2 shows results of a [survey published in the Scandinavian Journal of Public Health](#) on the popularity of complementary and alternative medicine (CAM) modalities in Europe. Popular in Europe, alternative medicine modalities including herbal medicine, homeopathy, chiropractic, acupuncture and reflexology are the most common.

Table 2. Popularity of CAM modalities in Europe

	Weighted percentage	Standard error	Unweighted total count
Austria	35.5	1.2	1768
Belgium	24.6	1.1	1760
Czech Rep.	25.0	1.1	2045
Denmark	32.1	1.4	1493
Estonia	35.1	1.2	2030
Finland	35.3	1.2	2081
France	31.2	1.4	1907
Germany	39.5	1.1	3019
Hungary	9.5	0.8	1649
Ireland	19.2	1.0	2261
Israel	15.1	0.8	2491
Lithuania	32.9	1.3	2174
Netherlands	14.1	0.9	1917
Norway	28.8	1.3	1433
Poland	12.9	0.9	1588
Portugal	14.1	1.4	1030
Slovenia	22.7	1.4	1196
Spain	17.2	0.9	1894
Sweden	31.5	1.2	1763
Switzerland	39.4	1.3	1525
UK	20.6	1.0	2234

All countries	26.0	0.3	39258
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Source: [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)

Note: All figures are rounded

Table 2 shows that complementary and alternative medicines (CAM) are the most popular in Germany and Switzerland, where almost 40% of respondents used some form of CAM in the last 12 months. Austria (35.5%), Finland (35.3%) and Estonia (35.1%) are also important. The lowest percentages were found in Hungary (9.5%) and Poland (12.9%).

### Tip:

Target health product companies in Western Europe. These countries are the biggest consumers and producers of pharmaceuticals and supplements. Consumers in these countries are also open to various modalities of complementary and alternative medicine.

## 4. Which products from developing countries have most potential in the European market?

Exports of natural ingredients for health products to Europe have a lot of potential. Many types of natural ingredients are used in pharmaceuticals, supplements, alternative medicine and complementary medicine.

Some of the most promising ingredients are turmeric, moringa, baobab, spirulina and essential oils. Demand is coming from the pharmaceutical as well as the nutraceutical sectors. Essential oils are also used in complementary and alternative medicine. Risks include companies that use a wide range of natural ingredients being able to easily switch ingredients according to market trends and consumer demand.

### Tip:

See the CBI study on [buyer requirements for natural ingredients for health products](#) for more information on Novel Food regulations.

## Essential Oils

Essential oils are widely used in aromatherapy products. The global aromatherapy market was [estimated to reach US\\$1.8 billion in 2018](#). The market is expected to grow at a CAGR of 10.4%, thanks mostly to the growing popularity and awareness of aromatherapy products. Aromatherapy can be used to treat a wide range of problems, including anxiety, depression, digestion, respiratory problems, insomnia and cardiovascular disorders.

Demand for essential oils is projected to rise in the coming years, thanks mostly to increasing consumer awareness of the beneficial properties of aromatherapy products. The expected growth is also associated with the rising popularity of supplements, herbal and Ayurvedic medicine.

Table 3 shows that imports of essential oils and oleoresins to the EU reached 49 thousand tonnes worth €1



billion in 2018. Between 2011 and 2018, these imports increased by 9% in volume and 49% in the average price per tonne. The value of imports is increasing because of rising demand, a trend that is expected to continue.

Table 3. Imports of essential oils and oleoresins from outside the EU, 2011–2018, value in € thousand, volume in 1,000 tonnes

Essential oils, oleoresins etc.	2011	2012	2013	2014	2015	2016	2017	2018
EU28 value	656,411	683,718	660,550	670,064	888,648	923,584	1,027,442	1,064,571
% change		4%	-3%	1%	33%	4%	11%	4%
EU28 volume	45	47	47	44	46	46	46	49
% change		3%	0%	-6%	5%	0%	-1%	6%

Source: Eurostat

Only approximately [20% of the essential oils imported to the EU](#) are used in aromatherapy products and cosmetics, according to estimates. The demand is expected to continue to increase in the future.

The most important essential oils in terms of volume imported to Europe are orange, peppermint, and other mint oils, which are usually used in the food industry. Essential oils used in aromatherapy products include patchouli, ylang ylang, tea tree, sandalwood and nutmeg. The most prospective country markets for these types of oils are France and Germany, as they have the biggest importers of essential oils. These countries also have important markets for aromatherapy products.

Other biggest importers of essential oils are Italy, Poland, the UK, Spain and the Netherlands. Many of these importing countries re-export essential oils to other countries. Germany, France and the UK are the biggest exporters of essential oils in Europe.

Exporters of essential oils from developing countries should avoid focusing on essential oils that can be sourced from Europe. France, for example, is a large European producer of essential oils. Lavender, lavandin, rose and clary sage, for instance, are all grown in France, where there is a significant aromatherapy and fragrance industry.

Suppliers from developing countries should focus on essential oils not grown in Europe. These include frankincense, patchouli, nutmeg, geranium, ylang ylang, sandalwood and lemongrass.

### Tips:

Communicate clearly the country of origin of your products so your buyers pass this information on to end users.

Look up documents that refer to the properties, benefits and claims associated with essential oils used in aromatherapy. Refer to publications, press releases and advertisements from competitors.

Support any cosmetic claims that you make with sufficient data. See our study of aromatherapy for health products for additional information on the health uses and requirements for aromatherapy oils.

Look up aromatherapy companies to see what claims they make about essential oils. Look into the websites of companies that sell aromatherapy products in Europe, such as [Farfalla Essentials](#) (Switzerland), [Neal's Yard Remedies](#) (the United Kingdom) [Taoasis](#) (Germany) and [Primavera Life](#) (Germany).

## Botanicals

Botanicals are plants or parts of plants used for their medical and therapeutic properties, as well as flavour or scent. There is a variety of plants that can be used as botanicals or their extracts, ranging from cereals, to fruits and vegetables to herbs. They are sold in many forms, such as liquid or solid extracts, tablets, powders, tea bags and capsules. There are many scientific claims that support the application of botanicals in health products.

Botanical products are an important part of the health and wellness market. According to [Hexa Research](#), the global botanical supplements market was valued at US\$17.74 billion in 2017. This market is projected to grow at a CAGR of more than 9% in the coming years, fuelled by increasing consumer concerns over synthetic ingredients.

Developing countries are sources of a wide range of plants and herbs that are used in the health products industry as botanical extracts. Demand for these functional ingredients is rising because of their specific properties; the most prospective being turmeric, moringa and baobab.

## Turmeric

Turmeric is becoming a popular ingredient in the health products market in Europe. Known for its antioxidant and anti-inflammatory properties, turmeric is used as a supplement and in medical products to boost the immune and digestive systems, as well as overall health.

Table 4. Turmeric imports from outside the EU, 2011-2018, value in € thousand, volume in 1,000 tonnes

Turmeric	2011	2012	2013	2014	2015	2016	2017	2018
EU28 value	23,608	14,106	13,228	15,420	22,961	28,344	33,881	34,458
% change		-67%	-7%	14%	33%	19%	16%	2%
EU28 volume	10	10	9	11	12	14	16	19
% change		-4%	-2%	13%	12%	10%	16%	16%

Source: Comext

Table 4 shows that imports of turmeric as a raw material into the EU have increased from 10 thousand tonnes in 2011 to about 19 thousand tonnes in 2018, an increase of 90%. Between 2011 and 2018, the value of turmeric imports increased by approximately 46%. In 2018, the value of turmeric imports reached €34.5 million.

Turmeric is native to South East Asia, being cultivated on the mainland and islands of the Indian Ocean. Most turmeric imported into the EU comes from India, but other import sources include Thailand, Madagascar, Peru and Sri Lanka. Table 5 provides import numbers of turmeric into the EU.

Table 5. Turmeric imports from India to the EU, 2011–2018, value in € thousand, volume in 1,000 tonnes

Turmeric	2011	2012	2013	2014	2015	2016	2017	2018
EU28 value	21,586	13,144	11,831	13,423	19,402	23,947	26,018	26,980
% change		-64%	-11%	12%	31%	19%	8%	3%
EU28 volume	9	9	9	10	11	12	14	17
% change		0%	-4%	12%	7%	11%	12%	18%

Source: Comext

Demand for turmeric is expected to continue to grow in the future, as the ingredient has become popular amongst European consumers.

### Tips:

Discuss with your buyer whether they require food or pharmaceutical grade turmeric.

Do not make medicinal claims if you are targeting buyers working in the food supplements industry.

Make sure you can meet the high regulatory and buyer requirements for herbal medicinal products. For more information, see the CBI report on [buyer requirements for exporting to the European market](#).

Do market research on current suppliers of turmeric. Make sure you have competitive prices, high quality and professional services. You can look at various online portals, such as [Europages](#) or [Indiamart](#).

## Açaí Berry

The [global açai berry market](#) was worth US\$712 million in 2017. The market is expected to grow at double digit growth rates until 2025.

Açaí berry is native to Central and South America. The majority of açai berries are currently produced in the [northern region of Brazil](#). All products that need to be transported and exported are processed within 24 hours. The berry is used in food and supplements for the treatment of arthritis, high cholesterol, erectile dysfunction (ED), weight loss and obesity, detoxification, aging skin, metabolic syndrome and for improving overall health.

Despite the food and beverage sector having the largest share, demand from the nutraceutical industry is

growing. It is estimated that around 10% of [total açai berry volumes](#) go to the nutraceutical sector, which represented around [34 thousand tonnes in 2016, but is expected to increase to 95 thousand tonnes by 2026](#).

Demand for açai berry from the nutraceutical industry is expected to increase in the future. The market is expected to grow by about 8%–9% per year. European consumers are demanding supplements as part of their healthy lifestyle. The main barriers to market growth are concentrated supply and export barriers in Brazil.

Rising demand for açai berries is hiking prices, but even after price increases, demand is expected to continue to rise because of the berry's high nutritional content.

Açai berries have great potential in the European health products market. However, large-scale production only takes place in Brazil. There are few opportunities for producers in other countries to compete with Brazilian suppliers, but açai berry substitutes like acerola, which is also native to Latin America may have opportunities. Blueberries are another nutritional alternative, although they are grown in Europe.

More than 1 million tonnes of açai berry are expected to be consumed by 2026. Technological innovation and improved supply chains of açai berry producers are expected to drive the increase in production. Latin America is expected to be the main consumer region for açai berries, followed by North America.

## Baobab

[The global baobab ingredient market](#) was valued at over US\$3.5 billion in 2017. According to the African Baobab Alliance, exports of baobab increased from 50 tonnes in 2013 to about 450 tonnes in 2017. Baobab is known for its anti-inflammatory and antioxidant properties, being rich in fibre, minerals and vitamins. Health benefits associated with baobab include improved digestion and immune system, as well as prevention of anemia and asthma. Baobab is used in the food industry and in nutraceuticals.

Baobab ingredients are derived from the baobab tree that is native to Africa. [The European market for baobab ingredients](#) is expected to increase by about 4% in the coming years. The leading markets are Germany, France and the UK.

Some of the main obstacles to the baobab ingredient market growth are low consumer awareness and lack of scientific evidence highlighting the health benefits of baobab consumption. This makes it harder for suppliers to approach European buyers as they would rather deal in ingredients that are already familiar with consumers.

Some say the white colour of baobab makes it difficult to stand out and appeal to consumers. It is harder for consumers to associate this colour with a fruit and its health benefits.

The quality of baobab is also a major challenge. There are different product varieties in the market, making it difficult to set a price level for baobab suppliers. The appearance of poor quality further damages trust in European buyers.

Demand for baobab ingredients is dampened by these factors, which also put downward pressure on prices. Robust quality standards for baobab are important to raise demand for baobab in Europe. Since baobab is not a plantation crop, suppliers rely on existing trees for harvest. Climate change and subsequent changes in rainfall pose another threat to baobab supply from Africa.

Despite all these challenges, demand for baobab in Europe is expected to increase in the future. The African Baobab Alliance forecasts exports to reach 5 thousand tonnes by 2025.

### Tips:

Refer to the digestive health and immune support properties of baobab in your product

documentation. For example, British company [Aduna](#) sells baobab-based health products. The company has entered various sourcing partnerships with baobab producers in Ghana. Aduna markets baobab as a superfood and is part of a social media campaign called #makebaobabfamous.

Certify your baobab organic and look for buyers that specialise in organic products. Having organic certification makes your ingredients more credible and competitive. You can also charge premium for your ingredients.

If your baobab is not certified, promote the sustainable and ethical aspects of your production process. Buyers might ask you to support your claims with certification or documentation on your sourcing practices or corporate social responsibility (CSR) practices.

For more information on baobab production see [The Baobab Network](#) and [The African Baobab Alliance](#).

Read the CBI report on tips for [exporting baobab to Europe](#) and to learn more on what makes baobab such an attractive ingredient for European buyers.

Do not make medicinal claims if you are targeting buyers working in the food supplements industry.

## Aloe vera

The global aloe vera extracts market was [worth US\\$1.6 billion in 2018](#). It is forecast to grow at a CAGR of 7.6% between 2019 and 2025, thanks to rising consumer awareness of the health benefits of aloe vera (linked to the treatment of diabetes, skin diseases, etc.), as well as growing demand from natural and organic cosmetics.

In Europe, aloe vera is cultivated in the Mediterranean region. However, the European market is dependent on imports from non-EU countries to meet high demand. Aloe vera is cultivated in India, Pakistan, China, as well as Egypt, South Africa, Kenya, USA, Mexico and Brazil.

Quality issues and fraud are major problems in the aloe vera market. Suppliers and producers of aloe vera product adulterate aloe vera because of price pressure and to reduce costs.

### Tips:

Read the CBI report on tips [for exporting aloe vera to Europe](#). You can learn more on what makes aloe vera such an attractive ingredient for European buyers.

Keep a close eye on information about production increases and harvests of aloe vera. This can help you anticipate supply developments and integrate that in your strategy of pricing and investments in your supply chain. Ask your buyers for this information.

If you supply other aloe species, document and communicate how sustainable your supplies are. You will need to show buyers a solid scenario if you want to compete with aloe vera producers.

Provide product identity and appropriate certificates of analysis to support your product specifications. This will help build trust with potential buyers.

When you add any substances to your product for preservation for example, inform your buyer by clearly indicating this in your product documentation.

## Moringa

The [global market for moringa products](#) was valued at US\$5.5 million in 2018. There is growing demand for moringa from the nutraceutical, food and cosmetics sectors. Europe has the largest market for moringa products, partly because of its use in food supplements in Western Europe. [The European moringa products market](#) was worth US\$1.3 billion in 2016 and is forecast to grow at an average annual growth rate of 9.5% between 2018 and 2025. Leaf powder is the most important segment.

Moringa contains vitamin A, vitamin B1, folate, calcium potassium, iron and zinc. It is also used in supplements that help reduce weight. Production of moringa is restricted to India and some parts of Africa. Roughly 80% of [global supply comes from India](#). Other producers of moringa are Kenya, Ghana, Nigeria, Niger, Rwanda, South Africa, Mozambique, as well as Cambodia and Haiti.

Moringa offers opportunities for growers in developing countries, especially since European supply of moringa is heavily dependent on imports from outside the EU. The main obstacle for new suppliers is the price. Indian suppliers can offer moringa at competitive prices because of large-scale production. Relatively low consumer awareness of moringa is also limiting market growth.

Demand for organic moringa is also growing because of growing consumer demand for organic and health products. Demand for moringa is expected to continue to increase in the future. Exports of moringa from India have been increasing [at double-digit growth rates](#).

### Tips:

Check with your buyers if they require certification of food safety management and check which food safety management systems they prefer.

Do not make medicinal claims if you are targeting buyers working in the food supplements industry.

Look for credible sources on the benefits of moringa. Use these references in your product documentation and marketing materials. For example, you can look at various scientific websites that offer research studies, such as [ScienceDirect](#).

Educate potential buyers on moringa uses to help them effectively promote moringa and expand interest for it in the European market. Show traditional uses of moringa powder in your country. Provide samples of moringa-based products to show in what type of final products moringa is used.

When you add any substances to your product, inform your buyer by clearly indicating it in your product documentation.

Important producers of nutraceuticals in Europe include [Tropextrakt GmbH](#) (DE), [Nu U Nutrition](#) (GB), [Vitarbo AG](#) (CH) and [Superfoods B.V.](#) (NL).

## Seaweeds

The [global algae products market](#) is estimated to be worth US\$9.9 billion in 2018. The global market is predicted to grow at a steady pace (CAGR 7%) to reach US\$14.99 billion in 2024, because of growing demand from the supplements sector, followed by the pharmaceutical sector. [Dried spirulina is the largest market segment](#) with about 12 thousand tonnes produced every year.

The most popular micro algae used in nutraceuticals are spirulina, chlorella, astaxanthin, beta carotene and omega-3 fatty acid. In pharmaceuticals, algae are used as antimicrobials, antivirals and antifungals, antioxidants, antitumor and anti-diabetic agents.

According to Allied Market Research, the [global spirulina market](#) was worth US\$346 million in 2018. The market is expected to grow at 10% CAGR between 2019 and 2026 to reach US\$779 million. Europe has the second largest market for spirulina.

Spirulina has a wide range of applications and health benefits. Demand for spirulina is driven by growing consumer awareness and demand for healthier products.

Approximately [70% of the world's spirulina](#) is produced in China, India and Taiwan. Other producers include the United States, Thailand, Pakistan, South Africa and Myanmar. Production of spirulina is also [promoted by various governmental initiatives](#) in India and South Africa. Producers in developing countries have ample opportunities to supply spirulina to Europe.

Chlorella is the second most important micro algae in seaweeds. [According to the Pharma Innovation Journal](#), chlorella production is approximately 5 thousand tonnes per year. According to Zion Market Research, the global chlorella market was worth US\$49 million in 2017, forecast to reach US\$68 million by 2024. Chlorella is in demand because of its health properties, such as the ability to remove heavy metals and ash content from the human body.

Some companies that have seaweed products include [Algomed](#) (Germany), [Roquette](#) (France), and [Necton](#) (Portugal).

Major restraints to supply chlorella are demanding production methods that require carbonated water and artificial light, which incur higher costs and lead to higher prices, so further research is required to improve production methods. Low consumer awareness of the health benefits of chlorella also limits market growth.

### Tips:

Target Western European importers for your seaweeds. France and Italy are the largest importers of seaweed from developing countries, while there are also growing markets for seaweed in the United Kingdom and Germany.

If your seaweed is not certified, promote the sustainable and ethical aspects of your production process. Buyers might ask you to support your claims with certification or documentation on your sourcing practices and sustainability practices. For example, the [Aquaculture Stewardship Council](#) has a sustainable seaweed standard.

See the [CBI report on exporting seaweed for health products](#) to Europe.

## Plant proteins

Consumer demand for plant proteins is driven by a growing shift towards healthier consumer lifestyles. Plant proteins have lower environmental impacts than animal-based proteins; some are byproducts of other production methods. The popularity of vegan lifestyles is also having a positive impact on plant protein sales.

There are different types of plant proteins in the European market. The most common ones are soya, pea, rice, hemp and almond. Plant-based proteins are usually used in processed food products, as well as in powders that can be used as supplements.

Table 6. EU28 production of protein plants, in 1,000 tonnes

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018e	2019f
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Rapeseed	19,021	21,514	20,614	19,231	19,248	20,985	24,267	21,814	20,102	22,020	20,043	18,711
Sunflower seed	7,219	7,044	6,975	8,559	7,199	9,272	9,274	7,882	8,739	10,403	9,964	10,640
Soybean	758	956	1,222	1,240	959	1,217	1,835	2,371	2,480	2,672	2,827	2,913
Linseed	70	127	171	157	132	134	115	128	147	154	104	166
Field peas	1,096	1,352	1,999	1,578	1,207	1,283	1,394	2,077	2,315	2,766	1,996	2,132
Broad/field beans	1,055	1,415	1,436	1,150	1,006	1,022	1,248	1,962	1,922	2,154	1,423	1,649
Lupins	87	111	190	132	130	153	209	364	297	263	208	242
Total oilseeds	27,067	29,642	28,982	29,187	27,538	31,608	35,491	32,195	31,467	35,249	32,937	32,430
Total protein crops	2,239	2,877	3,625	2,860	2,343	2,458	2,851	4,402	4,534	5,183	3,627	4,023

Source: ec.europa.eu

Table 6 shows production of some protein crops in Europe. Approximately 33 million tonnes of oilseed crops and about 3 million protein crops were grown in Europe in 2018. The most significant in terms of volume were rapeseed, sunflower and soybean.

Demand for proteins in the European market is dependent on imports. Table 7 shows soybean imports to the European Union and the main country sources: Brazil and the United States. The Netherlands and Italy are the biggest importers in Europe. However, most of the imports get re-exported to other European countries.

Table 7 Soybean Imports to the EU, 2018

	NL 28%	ES 24%	DE 16%	IT 9%	Others 23%
Brazil	1,194,027	1,923,578	845,073	312,245	1,612,720
United States	2,288,119	611,075	1,003,787	180,348	525,193
Canada	123,865	259,801	257,841	366,744	373,915
Paraguay	114,302	464,807	51,018	165,532	374,383
Ukraine	182,731	59,282	66,227	177,210	315,128
Uruguay	47,424		10,375	42,433	
Others	14,549	14,694	3,176	61,702	82,023

Source: ec.europa.eu

The global plant-based protein market was valued at an estimated **US\$4.16 billion in 2017**. The market is projected to reach US\$7.38 billion by 2025. Soy protein is estimated to be leading the segment of plant-based



proteins in the global market, followed by pea protein and wheat.

Important plant-based protein suppliers in Europe include [ADM Specialty Ingredients \(Europe\) B.V](#) (The Netherlands), [Roquette S.A. \(France\)](#), [BENEIO GmbH \(Germany\)](#) and [Ingredion \(Germany\)](#).

Plant-based proteins, such as rice, provide opportunities for suppliers in developing countries. The advantage of the rice protein is that brown rice does not contain common allergens, such as casein and soya protein isolates.

The [European rice protein market](#) was worth an estimated US\$13.5 million in 2018. The demand for rice protein is expected to increase in the future, propped by environmental concerns and the increasing popularity of vegan and vegetarian lifestyles.

The most prospective country markets for rice protein are Germany, the UK and France. In 2019, the UK overtook Germany in the highest number of vegan product launches. The UK also has a highly developed rice processing industry.

Chia protein is another plant-based protein that offers opportunities for exporters in developing countries. Chia is traditionally cultivated in Latin American countries, such as Mexico, Paraguay, Bolivia, Peru, Ecuador, Nicaragua and Argentina. However, there is some commercial production in a few African countries, such as Kenya and Uganda.

Chia seed powder is produced by grinding chia seeds. Germany, the Netherlands and Spain are among the leading importers of chia seeds. The popularity of chia seeds is growing because of its nutritional properties. However, the EU Novel Food Regulation is likely to slow demand in Europe as it places restrictions on the use of chia seeds in industrial applications.

The presence of cheaper alternatives, such as soya and whey protein, is another challenge for these plant-based proteins. However, soya protein tends to be highly processed and much of the supply is from genetically modified crops. Whey protein is also heavily processed and does not fit into the trend of vegan and more environmentally friendly diets.

### Tips:

For more information on the vegan trend, see websites and associations such the [The Vegan Society](#).

Stay up to date on trends and developments in plant-based proteins. Visit the website of European Vegetable Protein Association [EUVEPRO](#).

Search for credible information and sources on the benefits of plant-based proteins. Use these references in your product documentation and marketing materials.

If your protein is not certified, promote the sustainable and ethical aspects of your production process.

Support your claims with certification or documentation on your sourcing and sustainability practices.


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