

Entering the European market for edible seaweed

To enter the European market for seaweed you must meet the mandatory requirements set by the European Union. At the same time, also consider meeting the common additional requirements that European buyers and niche markets have, as this will help you enter the European market. Seaweeds are used by a number of end-user industries. The health products industry is the largest segment for spirulina and chlorella. Importers are the most prospective channel for exporters in developing countries. China is established as the major supplier of edible seaweeds, such as spirulina.

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1. What requirements must edible seaweed for health products comply with to be allowed on the European market?

What are mandatory requirements?

As an exporter of spirulina and/or chlorella from a developing country your spirulina and/or chlorella can only be exported to the European natural health product market if you comply with the European Union's (EU) mandatory legal requirements for natural ingredients for health products. Non-compliance will result in your spirulina and/or chlorella not entering the European market for natural health products.

If your spirulina and/or chlorella is used in food supplements, you must be complaint with [EU food supplement legislation](#) and the [European General Food Law](#).

Contamination

You must also comply with the EU's food safety requirements, which specifically cover topics, such as [maximum Residue Levels](#) (MRLs) for pesticides and [polycyclic aromatic hydrocarbons](#) (PAH); [contaminants in food](#) and [microbiological contamination of food](#), [food hygiene](#), food irradiation, [traceability](#) and [extraction solvents](#).

According to [Regulation \(EC\) No 629/2008](#) the maximum limits for trace metal elements in food supplements in Europe are:

- lead (3 mg/kg),
- cadmium (1 mg/kg for food supplements in general and 3 mg/kg for food supplements containing seaweed)
- mercury (0.1 mg/kg).

Tips:

Visit the [EU Trade Helpdesk](#) for more information on import rules and taxes in the European Union.

Contact [Open Trade Gate Sweden](#) if you have specific questions regarding rules and requirements in Sweden and the European Union.

Convention on Biological Diversity (CBD)/Access and Benefit-Sharing (CBD)

To export spirulina and/or chlorella to the European market you must comply with the requirements on using plant resources agreed under international treaties and protocols within the Convention on Biological Diversity (CBD). This is because the CBD is a part of EU law. Additionally, it is likely your own country is also a signatory, meaning you need to comply to meet your national laws.

The Nagoya Protocol's Access and Benefit-Sharing (ABS) provides guidelines for accessing and utilising genetic resources and traditional knowledge, as well as the fair and equitable sharing of benefits. Similar to CBD, European companies need to comply with ABS legislation. ABS is also likely to be a part of your country's regulations. As an exporter of spirulina and/or chlorella to the natural health product sector, make sure you abide by ABS.

In recent years, there is growing consumer awareness and demand for more environmentally-friendly products, and this trend is set to continue. This is leading European buyers to seek ethically sourced ingredients, something which is likely to become more important in the future.

Tips:

Visit the [Convention on Biological Diversity \(CBD\)](#) website as it provides useful information on CBD and ABS, including country profiles.

Consider ethically sourcing your spirulina and/or chlorella, as this is something European buyers are increasingly seeking.

What additional requirements do buyers often have?

Quality requirements for seaweed

Buyers have additional buyer requirements which go further than mandatory legislation and standards for spirulina and/or chlorella. These additional buyer requirements are outlined in buyer specifications. They can concern your spirulina and/or chlorella's active ingredient content and moisture contents along with its levels of contaminants and residues.

Quality is a key issue in seaweed production. As such, you should ensure no other species have been included in your spirulina and/or chlorella. Contamination by cyanotoxins, bacteria or metallic trace elements is another key issue in spirulina and/or chlorella seaweed production. You should therefore ensure your spirulina and/or chlorella is not contaminated.

Spirulina is also prone to contamination by cyanobacteria or cyanotoxins. The level of contamination by cyanobacteria should be systematically verified during the various stages of production.

The importance of quality management in the health products sector is expected to increase in the future. Quality is very important to European health product manufacturers who want to ensure they meet consumers' needs.

Tips:

As an exporter of spirulina and/or chlorella for natural health products, consider meeting other additional buyer requirements that demonstrate the good quality of your product. These requirements include compliance with [Hazard Analysis and Critical Control Points \(HACCP\)](#); having certification of a food management system based on HACCP; having Food Safety System ([FSSC 22000](#)), International

Organization for Standardization [ISO 22000](#) and [ISO 9001:2015](#), British Retail Consortium Global Standard for Food Safety ([BRCGS](#)) International Food Safety ([IFS](#)) certification respectively. Consider meeting these additional buyer requirements as they demonstrate the good quality of your spirulina and/or chlorella, giving you an advantage when entering the European market.

See the [CBI study on buyer requirements](#) for natural health products. This is because it provides guidance on quality requirements for natural health products as well as broader requirements for this sector.

Documentation

European buyers of spirulina and/or chlorella request that exporters provide them with well-structured and organised product and company documentation. They use this to verify whether you meet their requirements. Consider doing so, as it gives you an advantage when trying to establish yourself on the European market. From there on, you can develop long-lasting trading relationships with European buyers. Additionally, it makes you look organised and well prepared to do business with European buyers.

European buyers of spirulina and/or chlorella for health products usually want exporters to provide them with Safety Data Sheets (SDS). European buyers of turmeric for health products usually want exporters to provide them with Safety Data Sheets (SDS). Safety Data Sheets contain a:

- product description;
- classification;
- hazard identification; and
- information on safety measures.

Secondly, European buyers want to be provided with Technical Data Sheets (TDS), which contain:

- a product description;
- product classification;
- quality analysis;
- information on applications; and
- certificates.

European buyers also request a Certification of Analysis (CoA) which contains analytical data from the product delivered.

- The Certification of Analysis matches:
- data mentioned in the TDS;
- the pre-shipment sample that was approved by the buyer; and
- contractual agreements with the buyer.

Consider acquiring SDS, TDS and CoA for your spirulina and/or chlorella and have them ready for European buyers. In addition, if you already have documentation then inform European buyers when you approach them.

Tips:

See the [CBI study](#) on how to prepare technical data sheets for valuable information on the necessary technical dossiers you need to prepare before approaching European buyers.

Review examples of technical documentation for edible seaweed; for instance [Safety Data Sheet](#)

(SDS), [Technical Data Sheet \(TDS\)](#) and [Certificate of Analysis \(COA\)](#).

Labelling and packaging

In order to export your spirulina and/or chlorella on to the European market you must comply with the following labelling requirements:

- The name, address and telephone number of supplier
- Product name
- Batch code
- Place of origin
- Date of manufacture
- Expiry date
- Weight
- Recommended storage conditions

If you export organic spirulina and/or chlorella, your labelling needs to include the name and/or code of the inspection body and the certification number.

Packaging materials for edible seaweed can vary. For chlorella and spirulina powder plastic and aluminium foil bags are used. Waterproof bags are also used for safety. Depending on the quantity, drums are also used to contain sealed bags of edible seaweed.

Tips:

Offer a wide range of packaging sizes when exporting spirulina and chlorella. It is common to offer packaging options ranging from 1kg-25kg and above.

See the labelling of foodstuffs section under the labelling and packaging guidelines section on the [EU Trade Helpdesk](#) for an overview of labelling and packaging requirements that you need to abide by.

Payment terms

Payment is central to all trade and presents risks to all parties involved. As an exporter of spirulina and/or chlorella, minimise your risks while working to meet the needs of European buyers. You can do this by performing risk assessments of available payment terms before trading with European buyers.

There are [several methods of payment](#). However, for both importers and exporters, Letters of Credit (LC) are considered the safest payment term. This is because an LC lets both parties contact a neutral arbitrator, usually a bank, to resolve any issues. For the exporter, the chosen bank is a guarantor of full payment as long as goods have been dispatched. In such instances, to avoid further losses, exporters should find new buyers and pay for the return of dispatched goods.

Based upon their needs, importers and exporters can choose from [several LC payment terms](#). These include standby, revocable, irrevocable, revolving, transferable, un-transferable, back to back, red clause, green clause and export/import. For exporters, standby LC is considered the safest, with it being frequently used in international trade. This is because it provides security to both importers and exporters who have little trading experience with each another. Other payment terms include cash in advance, documentary collections and open account.

Tips:

Minimise your risks while working to meet the needs of European buyers.

See the [CBI study on organising your export](#) of natural ingredients for health products to Europe. This is because it provides guidance on available payment terms used in this sector.

Delivery terms

When agreeing delivery terms with European buyers, you must carefully consider three important factors: delivery time, volume and cost. This is because failure to meet agreed delivery terms could end your trading relationship with European buyers.

1. Delivery time - As an exporter, you should understand that European buyers prefer shorter delivery times. Air cargo is usually faster than sea freight. Air freight is also more reliable in regards to on time delivery.
2. Delivery volume/ quantity of order - The volume of your order is an important factor to take into consideration when choosing a mode of transport. Larger quantities are often cheaper to ship by sea. With lower volumes, air freight can be less expensive, as margins get smaller.
3. Cost of delivery method - It is estimated that sea freight is usually 4-6 times cheaper than air freight. This applies to larger volumes. It is not likely that price of your cargo will increase substantially, if you increase the volume.

Tips:

Keep in mind the three important factors of delivery time, volume and cost when determining which delivery terms are the most suitable for your business needs. Remember there will be tensions and trade-offs, particularly when you are doing business for the first time with a European buyer.

Visit the Freightos website and use the [Freightos freight calculator](#) to get instant international freight rate price information for shipping freight by ship and air. Doing so will allow you to make a more informed decision before agreeing delivery terms with buyers.

See the [CBI study on organising your export](#) of natural ingredients for health products to Europe. This is because it provides guidance on delivery terms used in this sector.

What are the requirements for niche markets?

Organic ingredients

European buyers are increasingly seeking organic raw materials, including spirulina and chlorella. Several certification agencies can help you with the conversion process to organic production. For information on the [EU organic certification](#), visit the IFOAM website.

Tips:

Consider converting to organic production methods and getting certification due to increasing demand for organic health products.

Ensure you have a Certification of Inspection (COI) that is up-to-date to with the [latest changes made by the EU](#), which came into force on 3 February 2020. This is because it is a mandatory requirement of

the EU if you want to trade organic ingredients on the European market.

For a full overview of certification schemes in the sector consult [ITC Sustainability Map](#).

Environmental and social standards

European consumers and retailers are increasingly putting pressure on companies to ensure that their products are made according to environmental and social standards. European buyers of spirulina and/or chlorella are therefore requesting suppliers meet environmental and social standards.

As an exporter, one way you can do this is by gaining verification and certification that proves you meet environmental and social standards. With regard to environmental and social sustainability, consider meeting the environmental and social standards outlined in the [ASC-MSC Seaweed Standard](#) set by the [Aquaculture Stewardship Council](#). In addition, also consider meeting [UNCTAD BioTrade Initiative](#) and implement the BioTrade Principles. To show you meet social standards, consider [FLO Fairtrade](#) certification or meet [FairForLife](#) standards.

Tips:

Acquire verification and certifications that prove your spirulina and/or chlorella for health products meets environmental and social standards. Doing so will help you find opportunities in the European market.

See the [CBI Study on buyer requirements](#) for natural health products. This is because it provides useful information on broader requirements for this market.

Demand for natural ingredients such as spirulina and/or chlorella to meet environmental and social standards is predicted to increase over the coming years. You should therefore consider whether there is a business case for investing in such standards.

See the [CBI Study The European market potential for edible seaweed](#), which provides useful information about trends that offer opportunities on the European market.

2. Through what channels can you get edible seaweed on the European market?

The commercial production of edible seaweed such as spirulina and chlorella is found in countries in Asia, Africa, North and Latin America, as well as Europe. Spirulina and chlorella have a wide range of applications. However, their main applications are in the health food sector because of their nutritional properties.

How is the end-market segmented?

The European market for spirulina and chlorella can be segmented by end-user markets. These include the health products, food and feed and cosmetics sectors. Figure 1 gives examples of seaweed products in the European market by end-user segments.

Figure 1: Examples of seaweed products in the European market

End Market Segments for Spirulina and Chlorella Products



Source: Various

Health products industry

Spirulina and chlorella are mainly used in the health products sector. This is due to their pharmacological properties, which include anti-microbial, anti-cancer, metalloprotective properties. Spirulina also acts as an immunostimulant and has antioxidant effects because of its high content of protein, polysaccharide, lipid, essential amino and fatty acids, dietary minerals and vitamins. Spirulina and chlorella are usually sold in powdered form or as tablets. It is also used as a colourant in the pharmaceutical industry.

It is estimated that the health products sector accounts for about 60-70 percent of the spirulina and chlorella demand in Europe. Spirulina is mostly used as a powder, as tablets, as liquid extract and as granules. The demand from this sector is increasing and it is expected to continue to do so in the future. As spirulina and chlorella are a source of protein, demand is expected to rise from consumers looking for more environmentally-friendly alternatives.

Food and feed industry

Spirulina is a natural source of green and blue colouring, and is used as a natural dye in the food industry. Spirulina can also enhance the nutritional content of food products when added as colourant, texturising agent, gelling agent, and/or prebiotic. Chlorella is also used as feed for animals due to its nutritional properties.

Cosmetic industry

The cosmetics industry uses spirulina as a colourant and for its antioxidant properties. Chlorella is also a source of several beneficial active properties, meaning it is well suited to the cosmetics industry. The application of spirulina and chlorella in the personal care sector has been gaining traction.

This Study focuses on seaweeds used in the health products sector.

Tips:

See the [CBI Study The European market potential for edible seaweed](#), as it provides useful information and guidance on entering the European health product market with spirulina and chlorella.

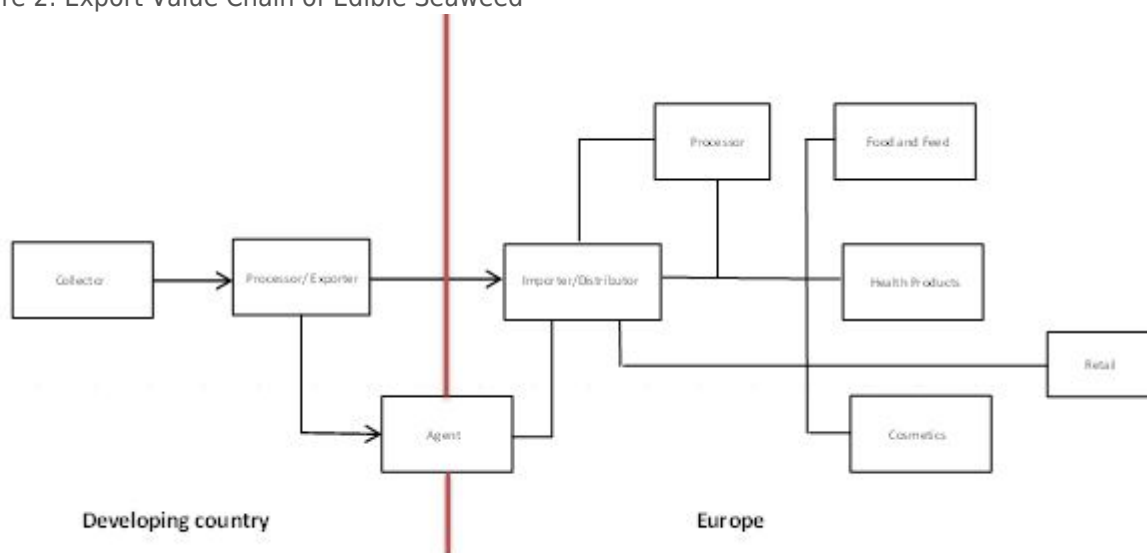
Educate yourself on [spirulina's benefits](#) and/or [chlorella's benefits](#) in the health products sector. You can do this by doing basic online searches. Following this, promote their respective benefits on your marketing materials and your website.

Visit trade fairs to see if the industry is open to your product, get market information and find potential buyers. Trade fairs will also give you the chance to speak to end-users and distributors, and to gauge your competition, especially the way they are marketing their products.

Through what channels do seaweeds end up on the end-market?

Figure 2 shows the export value chain for edible seaweeds, such as spirulina and chlorella. In developing countries, seaweed powder is mostly processed through grinding/milling, after which it is then exported. Spirulina and chlorella for health products mostly enters the European market in a dried and ground form.

Figure 2: Export Value Chain of Edible Seaweed



Source: Ecovia Intelligence

Importer/Distributor

The majority of spirulina and chlorella is imported onto the European market through importers/distributors that supply spirulina and chlorella to health product industry. Important importers/distributors include [Nexira](#) and [Bio Import Europa](#). Bio Import Europa imports and distributes both organic and conventional chlorella, while Nexira only imports and distributes organic spirulina. European importers/distributors sometimes package spirulina and chlorella in Europe. Chlorella and spirulina products are mainly sold at specialist retailers.

Agent

An [export agent](#) is a firm or an individual that undertakes most of the exporting activities on behalf of an exporter, usually for a commission. Agents can be found in developing countries as well as in Europe. However, it is not that common for companies to use agents in the European market. As an exporter from a developing

country, you can work with agents who represent and act on your behalf on the European market.

Tips:

Consider expanding your spirulina and/or chlorella portfolio by using organic spirulina and/or chlorella, for example, as this will help you find a wider range of customers. Other [reasons for expanding your product portfolio](#) include it giving you more attention on the market, thus making you stand out from your competition.

If you are able to supply larger volumes in tonnes, be prepared to meet prospective buyers who are interested in purchasing larger volumes.

What is the most interesting channel for you?

As an exporter of edible seaweed like spirulina and/or chlorella in a developing country, importers/distributors are the most interesting channel for you. Importers/distributors supply natural health products manufacturers that package spirulina and chlorella that they then supply to wholesalers or to the retail sector.

Importers/distributors usually focus on requirements such as the minimum volume requirements, speedy delivery and quality of products. Most importers/distributors are located in Western European countries and regularly visit/exhibit at trade shows, where they are looking for new suppliers. Examples of importers/distributors include [Nexira](#), [Bio Import Europa](#) and [Dr. Behr GmbH](#).

Tips:

See the [CBI Study Tips for finding buyers](#) in the natural ingredients for health products sector for useful information and guidance on finding buyers in channels you can enter through. In particular, importers/distributors, who are the most interesting channel for you.

Visit trade shows to in order to connect with European buyers. You can use this opportunity to get contact details and network with buyers that source edible seaweed. Examples include [Vitafoods](#), [Nutraceuticals Europe](#), and [Health Ingredients Europe](#).

3. What competition do you face on the European seaweed market?

What countries are you competing with?

The countries listed here share two key similarities. Firstly, these countries have well established spirulina and/or chlorella industries, and secondly they have supportive governments.

China

China is the world's largest producer of spirulina and chlorella. Spirulina and chlorella imported from China is traded at a competitive price levels, also because Chinese suppliers of spirulina and chlorella are also capable of supplying large quantities. Smaller suppliers of spirulina and chlorella from developing countries may find it difficult to compete with Chinese suppliers.

Taiwan

Taiwan is one of the largest major producers of chlorella. One of Taiwan's key strengths is the positive safety records of its exports. Many Taiwanese producers offer organic certified chlorella and spirulina. The quality of Taiwanese chlorella is considered high. Taiwanese suppliers are also able to supply larger quantities of edible seaweeds like chlorella and spirulina.

Japan

Japan is one of the [world's largest producers](#) of chlorella. Japanese producers use advanced chlorella production methods, such as autotrophic production. This means that chlorella grows in open ponds and semi-closed tubular photobioreactors or inclined cascades. Japan is a part of the EU-Japan Centre for Industrial Cooperation. This is because one of the partnership's main aims is to help Japanese exporters of micro-algae like chlorella to reach the European market.

However, the Japanese chlorella industry faces challenges with a key one being the EU placing restrictions on all food items from specific parts of Japan. This is because of fears of contamination of food items after the Fukushima nuclear power station disaster.

India

India is the second most important supplier of spirulina. The Indian spirulina industry is developing, which is one of India's key strengths. This is because farmers are choosing to cultivate spirulina as there is a fixed market, and it is a regular income generating crop compared to other crops which are subject to weather uncertainties. Another of India's key strengths is its [government promoting the spirulina industry](#). For example, India has conducted a joint effort with many government agencies covering all aspects of spirulina production, from simple cultivation to large-scale commercial farming. India's other strengths include low costs, government support and policies along with the [development of rural areas](#).

South Korea

South Korea also produces chlorella. One of Korea's key strengths is that the chlorella, which is widely grown there, is of good quality. For example, South Korean chlorella is considered as some of the cleanest and purest varieties.

South Korea's other strengths include its [Free Trade Agreement with the European Union](#), which makes it easier for exporters to reach the European market. The [government also supports](#) the agricultural industry. As a result, it could become easier for South Korean producers to export chlorella to the European market. However, [challenges that South Korea faces](#) include an ageing population and tensions with its neighbour North Korea.

Chad

Chad is a country that has been harvesting and producing spirulina for centuries. Spirulina is cultivated in natural ponds and lakes. The production and commercialisation is supported by various governmental and non-governmental organisations. For example, [The European Union funded a cultivation project](#) in Chad to help its spirulina industry. However, Lake Chad is shrinking in size due to drought. This can potentially threaten the spirulina industry in near future. While production of spirulina in lakes and ponds may require less investment, it also gives producers less control over weather conditions. Suppliers of edible seaweed from developing countries should consider investing into artificial tanks, which may help them maintain regular supply throughout the year.

Tips:

Find out if your country has programmes helping exporters like you harvest, cultivate, process and export spirulina and/or chlorella. You can do this by contacting government ministries of trade in your

country because they often have information about this along with providing assistance to help you export your spirulina and/or chlorella.

Consider joining the organisations who offer a range of assistance to exporters of spirulina and/or chlorella from developing countries. For example, the Chinese Microalgae Industry Alliance and Chinese Algae Industry Association can offer various kinds of assistance.

Take advantage of trade deals in your country. For example, exporters from South Korea can use the benefits of their country's free trade agreement with the European Union to export.

See the [CBI study on the European market for edible seaweed](#) to gain insights on the biggest exporters of seaweed.

What companies are you competing with?

Several established companies export spirulina and chlorella to the European market. What these companies have in common is that they meet various standards and certifications that prove they supply high-quality products. Another strength these companies share is a professional website. Their websites include sections informing prospective buyers about the companies themselves, how they source and process their spirulina and/or chlorella along with technical details and the certifications they hold, accompanied by professionally taken photographs.

Chinese companies

One of [Hainan Diaisheng Microalgae](#) key strengths is its ability to prove the high quality of the spirulina it exports to the European market. For example, Hainan Diaisheng Microalgae's spirulina products holds [ISO 9001:2015](#), [FSSC 22000](#) and [HACCP](#) certification.

Taiwanese companies

[FEBICO](#) is also able to prove the high quality of the spirulina and chlorella it exports to the European market, which is one of its key strengths. For instance, its spirulina and chlorella production facility has [HACCP](#) and [ISO 22000](#) certification and meets [Good Manufacturing Practice](#) (GMP) standards. Another of FEBICO's key strengths, is that it exports organic spirulina and organic chlorella that is [EU organic](#) and [Naturland](#) certified.

Japanese companies

One of [Sun Chlorella](#)'s key strengths is its ability to export high-quality chlorella to the European market. Sun Chlorella achieves this by manufacturing its products in a certified factory that meets dietary/food supplement Good Manufacturing Practice (GMP) standards.

Another of Sun Chlorella's key strengths is its commitment to meet good environmental and [Corporate Social Responsibility](#) standards. For example, Sun Chlorella supports tree planting projects and it is establishing an environmental Corporate Social Responsibility management system.

Tips:

Ensure you provide European buyers of spirulina and/or chlorella for natural health products with the finest quality products because this is something they expect.

Consider acquiring certification that proves the high quality of your spirulina and/or chlorella products, such as [ISO 9001:2015](#), [FSSC 22000](#) and [HACCP](#) certification, along with meeting [Good Manufacturing Practice](#) (GMP) standards.

Consider acquiring certification that proves you meet and uphold social and environmental standards. For example, [MSC-ASC Seaweed Standard](#) is a scheme that pertains to sustainable sourcing of seaweed.

Organic is becoming increasingly popular in the European market. As such, consider acquiring certification for your spirulina and/or chlorella products. For example, [European Union \(EU\) Organic](#) certification.

Ensure you have a professional website with well-prepared content that clearly informs prospective buyers of your key strengths. For example, the certification you hold showing the quality of your products along with your commitment to upholding environmental and social standards.

What products are you competing with?

Moringa

Moringa oleifera leaf powder is a product competing with spirulina and chlorella. Moringa is [native to India](#), with most of its production occurring there. The moringa plant is also cultivated across developing countries in tropical and sub-tropical Africa, Asia, islands in the Pacific and the Caribbean, and South America.

One of Moringa's key strengths is its ability to grow in a wide range of soils and in extremely dry regions where rainfall is limited. Other key strengths of moringa are that it is drought resistant, grows very fast and is highly nutritious. Moringa is used in food supplements because of its wide range of health benefits. It has high levels of vitamins E and K, as well as iron, calcium and potassium.

Another of moringa's strengths is that it is a rich source of protein. However, moringa does not have as much protein as spirulina. Weaknesses of moringa include a lack of consumer awareness about its benefits along with the European moringa market being underdeveloped. However, industry sources suggest moringa does have commercial potential because of its benefits. As such, moringa could become a greater threat to spirulina and chlorella in the future.

Figure 3: Moringa



Source: Rostovtsevayu/Shutterstock.com

Sacha inchi

Sacha inchi is a product competing with spirulina and chlorella. Sacha inchi is native to Peru, Ecuador and

Colombia. It has been cultivated and used as a food source by natives in the Amazon rainforest for 3,000 years. Sacha inchi is also cultivated in South-East Asia, particularly in Thailand. One of [sacha inchi's key strengths](#) is that it is a rich source of protein, omega 3, 6, and 9, vitamin E, vitamin A and fibres. It is also easy to digest and unlikely to cause allergies or irritation.

Sacha inchi is one of very few plant foods that provides adequate amounts of omega fatty acids. It can therefore meet the demands of vegan and vegetarian market, which is another of its key strengths. However, a key weakness of sacha inchi is its lack of [environmental and social sustainability](#) and its [lack of availability](#). Another key weakness of sacha inchi is a [lack of its awareness](#) amongst consumers and formulators of natural health products.

Figure 4: Sacha inchi



Source: Akepong Srichaichana/Shutterstock.com

Barley grass

Barley grass powder derived from *hordeum vulgare* (commonly known as barley) is a product competing with spirulina and chlorella. Barley is cultivated in several countries around the world. Russia, Australia, Germany, France and Ukraine are the [largest producers](#). One of barley grass powder's key strengths is that it has [high levels of the same important nutrients](#) that spirulina provides and in particular vitamin B1 and calcium.

Recent research shows that [barley grass powder is the best functional food](#) to provide nutrition and eliminates toxins from cells in human beings. Recent years have seen [growing consumer awareness](#) about the health benefits of barley grass. As such, barley grass powder is a threat to spirulina and chlorella. However, climate change is a key issue the barley grass industry faces as it is sensitive to extreme drought and heat. This is one of its main weaknesses.

Figure 5: Barley grass



Source: Eskymaks/Shutterstock.com

Tips:

Familiarise yourself with products competing with spirulina and/or chlorella that are available on the European market. Learn about their strengths and weaknesses. CBI offers [a study on moringa](#)

Research how spirulina and chlorella compare against competing products. Make sure you use this information in your marketing materials and when approaching European buyers. Examples include [blogs](#) and [websites](#) that deal with these issues.

Build a marketing story for your spirulina and/or chlorella which places emphasis on its key strengths. Taiwanese company [FEBICO](#) is a company that does this as it clearly informs prospective buyers about its spirulina and chlorella's strengths.

4. What are the prices for edible seaweed on the European market?

Spirulina prices decreased between 2012 and 2016 and increased slightly in 2017. The average FOB market price of spirulina powder is about USD 8-10/kg. Spirulina tablets are priced at about USD 9-12 per kilogramme. Chlorella powder FOB market prices ranges between USD 10-15/kg, while tables are priced at about USD 14-20 per kilogramme.

It is expected that the price of high-quality spirulina and chlorella will increase in the future because of lack of supply and quality issues.

Figure 6: Estimated price breakdown of edible seaweed products in the European market



Source: Ecovia Intelligence


Tip:

Certification schemes can allow you to charge a premium for your edible seaweed. Make sure you can justify your price with relevant certifications.


This study has been carried out on behalf of CBI by [Ecovia Intelligence](#).

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