

9 tips to go green with natural food additives

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The market for natural food additives has grown in recent years as consumer demand for natural and healthy food options has gone up. At the same time, consumers are becoming more concerned about the impact their food has on the environment. The tips that follow show you how to make the transition to a green business by incorporating sustainable practices in production, processing, logistics and packaging. These tips will also show how to boost your environmental sustainability and make your business more attractive to sustainability-minded European buyers.

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1. Know how EU green legislation will impact your export business

In recent years, the European Union (EU) has introduced new policies to promote sustainable and environmentally-friendly production. The most important change is the [EU Green Deal](#). It outlines a plan for a climate-neutral Europe, including a roadmap to cut greenhouse gas emissions by at least 55% in 2030. The EU Green Deal also aims to preserve and restore ecosystems and biodiversity, eliminate environmental pollution and create a [circular economy](#). This is an economy based on the '3 R's' – to reduce, reuse and recycle waste – and on the use and recovery of renewable resources. Figure 1 gives an overview of the main aspects of the EU Green Deal that European companies have to apply throughout their supply chains.

The requirements of the EU Green Deal will not become mandatory until 2024, and even then these laws will apply only to the largest companies. However, the EU has also introduced a proposal on 'Corporate Sustainability Due Diligence' across global supply chains. Under this proposal, larger European companies will be required to identify and, where necessary, prevent or mitigate adverse impacts on human rights and the environment throughout their supply chains. [Firmenich](#), a leading supplier of flavourings to the European market, [is a CDP supply chain member](#) and requires its main suppliers to report their own environmental data and efforts to reduce greenhouse gas emissions via the [Carbon Disclosure Project \(CDP\) questionnaire](#).

Another important regulation is the [EU Deforestation Regulation \(EUDR\)](#). The EUDR aims to make sure that products imported into the EU have not contributed to deforestation or forest degradation. This means EU importers must document their products' origin and show they are not causing forest degradation.

EU importers and food manufacturers will be holding suppliers outside Europe more accountable. As an exporter, you may be asked to provide information on what you are doing to preserve ecosystems. You will need to provide more transparency and traceability about your supply chain. The tips below explain how you can show your commitment to environmental sustainability.

Figure 1: EU Green Deal focus areas



Source: [ProFound](#), 2023

Tips:

Read European companies' sustainability reports to get a better idea of what they expect from suppliers. For example, [Firmenich's Environmental, Social and Governance \(ESG\) Report](#).

Read the CBI study on [The EU Green Deal – how will it impact my business?](#)

Read [this World Economic Forum report](#) to learn all you need to know about the EU Green Deal.

Read about the [Corporate Sustainability Reporting Directive](#), which requires large companies and listed SMEs to report on their commitment to environmental and social sustainability.

2. Work with your producers to lay the basis for green production

Your journey towards becoming a sustainable exporter of natural food additives starts with assessing conditions at the beginning of your supply chain. Although many leading companies and governments recognise the need for urgent action to promote sustainability and biodiversity conservation at the production level, they often have no information about what is doable. This is where you can make the biggest difference, because you are most closely connected to the producers.

As an exporter with the closest links to producers, you play a key role in promoting sustainable production methods in the supply chain. You can talk to producers and inform them about changes in EU requirements under the Green Deal. Discuss sustainable harvesting options with your producers. See what is possible for them and what challenges they see to greening production. Also consult with your European clients about how to make production more environmentally friendly and how you can do this together.

This may sound like a lot of work, but showing you are aware of environmental sustainability requirements will put your company in a stronger position. It will make you more attractive to European buyers looking to source sustainably cultivated natural ingredients for the food industry.

At the same time, it may require you to change your own buying practices, by reducing your dependence on local distributors and engaging more with producers and the production level. Working closely with producers will not only help you access new green markets, but will also benefit your business in other ways.

Some benefits for exporters of working closely with producers are:

Builds your story about going green

Working closely with producers lets you develop ways to truly make production more ecologically

sustainable. This knowledge is the basis for telling your story about going green.

Better quality control

Working closely with producers makes it easier to be sure that production meets your quality standard. It also reduces material waste.

Saves costs

Working together on improving production processes can lead to a better use of raw material, higher productivity and cost savings for both parties.

Faster delivery

Working closely with producers can cut delivery times and help you meet tight deadlines.

Better knowledge of the competition

Closer collaboration puts you in a better position to compete with other local traders exporting the same product as you.

Flexibility for adaptive management

Knowing what is happening locally will make it easier for you as an exporter to adapt to changing production conditions and to respond to any new market requirements.

A great example of a company that works closely with producers is [Symrise](#), a global manufacturer of flavours and fragrances. They work directly with 7,000 farmers to create the best possible products. Symrise says that one of the most important factors in its successful collaboration with producers is building trust: “Proximity to the farmers helps us achieve our goals, such as being able to trace the origin of the vanilla accurately while simultaneously maintaining excellent quality.” The company also reached out to middlemen who buy beans in local markets, employing them as inspectors and supervisors in Symrise’s supply chains.

Tips:

Find out which farmers are interested in sustainable production, invest in annual audits and training to understand their sustainable production challenges and support them to become more sustainable.

Find and support lead farmers who are knowledgeable about sustainable farming practices to manage demonstration farms, where other farmers can learn best practices.

Involve farmers in environmental risk assessments to help them understand the risks and get their support in managing them.

3. Offer traceable and deforestation-free products

Classic agricultural products such as fruits, nuts and oilseeds are destructive to forests and among the [main causes of deforestation](#). As the EU tightens environmental regulations, European importers will want detailed information about all the actors in their upstream supply chains. They will ask about your sourcing locations and about the impact of production and harvesting practices on the environment. This means you have to be able to

provide proof of the origin of your product and of its sustainable/deforestation-free production.

As an exporter of natural food additives, you can set up your own deforestation-free traceability system to meet strict EU sustainable supply chain requirements. [Traceability](#) is a tool that lets you prove the origin of your product and the conditions under which it was produced. You can share how your business works with producers to improve quality and how production is helping to maintain natural vegetation and forests and supporting climate adaptation and biodiversity conservation efforts.

There are many different ways to set up a traceability system. If you are new to this, don't make it too complicated. All you need is a system that is easy for you and your suppliers to use, that documents where products are grown and who is involved. It can help to assign codes to each producer and record the volume participation of each batch, also giving this its own code. This way, you can work with the code for each batch in later processing. You can keep records on paper, but it is much more efficient and ecologically sustainable if you save this data digitally.

A good idea if you are exporting to the EU is to add the geographic location of production areas to your traceability system. This lets you prove that your production is within established agriculture zones and is not causing deforestation or forest degradation. If your production areas are near protected zones, maybe you can show that you are helping to conserve natural biodiversity by leaving natural vegetation alone and keeping it as a buffer zone. These are all positive features of your business that are part of going green, so share this information with your clients. [Geographical mapping of production areas](#) is also the basis for due diligence on land use (see [Tips for being socially responsible](#)).

[The ASC-MSC Seaweed Standard](#) focuses on the health of the world's aquatic ecosystem by promoting environmentally sustainable use of seaweed resources. Its [MSC Chain of Custody certification](#) (page 12) guarantees that seaweed products come from a sustainable source. For seaweed products to be sold as ASC or MSC-certified, the whole supply chain must be certified. European companies wishing to sell ASC and MSC-certified seaweed therefore need a traceability system for their whole supply chain, all the way to wild harvesting operations.

[The Fish Shop](#), a Nigerian producer and exporter of fish products, is ASC-certified. This certification lets their buyers make verifiable claims to customers about the sustainable origin of their seafood.

Tips:

Read this article about how to [set up a traceability system for natural ingredient supply chains](#), published by the Initiative for Sustainable Agricultural Supply Chains.

Every product and supply chain has its own traceability challenges. There is no one-size-fits-all system, so it is common to adapt a system based on initial field trials. If you have more than 1 sourcing location, you can set up a traceability system in 1 area first to test its effectiveness and then make improvements before using it in other areas.

At first, you may have to invest time and money in training your suppliers and producers in how to use the traceability system. Look for potential funders such as non-governmental organisations or international development agency projects, which often offer support for setting up traceability systems.

See if your client is willing to share the costs of setting up a traceability system.

See our social tips to learn how to integrate smallholder producers into your traceability system.

4. Set yourself apart from the competition: aim for nature

positive, regenerative and ‘net zero’

As sustainability becomes mainstream in the European market, buyers are looking for new approaches to be sustainable. This also sets them apart from competitors. Therefore, working with suppliers who are truly committed to sustainable practices and able to communicate their unique approach can give your company a competitive advantage.

Your product may start out with a carbon footprint. For example, the production of vanilla can have a high carbon footprint due to some of the steps involved, such as the artificial methods sometimes used to speed up the drying process. However, with the right planning, vanilla can be dried using a natural source. No matter how high the carbon footprint of your natural ingredient, you should explore ways to reduce it.

Look into sustainable production concepts such as ‘nature positive’ and ‘regenerative’

Look into production methods that are [nature positive](#), [regenerative](#) and [net zero](#). These are ways to stop and reverse biodiversity loss, increase biomass and cut fossil energy use in production systems. If you export a natural ingredient that is wild harvested or obtained from a cultivated tree or shrub, you may already be using these methods without knowing it. If you export seaweed, you can highlight its contributions to carbon sequestration, habitat creation and marine biodiversity.

Get a clear picture of production conditions

It is a good idea to get a clear picture of the conditions under which your natural ingredients are produced (including cultivation, harvesting and processing) and any potential ‘green’ features. To do this, ask your producers to show and tell you about the full process from planting to harvesting. If you export a raw material with some environmental benefit, take advantage of this feature by highlighting it in your production story.

A good case example of an exporter that brings these concepts together is [Big Tree Farms](#), an Indonesian producer and exporter of coconut sugar and other natural food additives. By working closely with their producers, they have been able to transform how they think about land traditionally used for personal crop and food production. Producers now use ‘backyard’ land to regeneratively farm and export a wide range of natural ingredients such as cocoa, coconuts, mangosteen, mangos and ginger. Their ‘trees of life’ – coconut trees – provide crop cover by shielding the crops underneath from intense sunlight while also drawing in moisture. To learn more, watch [Big Tree Farms’ video explaining how they operate and create value for communities and the environment](#).

Table 1 lists some examples of ecologically sustainable features that European natural ingredient brands and retailers promote in their marketing material.

Table 1: Ecologically sustainable features of natural ingredients promoted by several companies

Natural ingredient/plant part used	Company	Sustainable features promoted
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Seaweed extract	Ceylon Aqua and Agri	<ul style="list-style-type: none"> • Renewable resource that grows quickly without need for fertiliser • Absorbs atmospheric carbon during photosynthesis • Habitat for birds, insects and mammals • Helps cycle nutrients into the marine ecosystem • Able to remove pollutants from water and improve water quality
Vanilla extract	Symrise	<ul style="list-style-type: none"> • Can grow alongside other crops such as coffee, cocoa and bananas, so is good for biodiversity
Coconut sugar	Senikma Holdings	<ul style="list-style-type: none"> • Habitat for birds, insects and mammals • Acts as carbon sink and good for soil conservation • Coconut palms are well-adapted to dry environments and require very little water • Sustainable harvesting system conserves trees and livelihood of local communities long-term
Gum acacia	Fairtrade and Organic Gum Acacia (FOGA)	<ul style="list-style-type: none"> • Acacia trees require little water and grow in dry areas • Trees are very resilient and tapping provides strong incentive to conserve instead of chopping them down for firewood • Act as carbon sink and good for soil conservation

Source: [ProFound](#) and Christine Woda, 2023

Regenerative agriculture

Regenerative agriculture aims to boost carbon storage, soil health, water retention, crop resilience and nutrient density.

Regenerative agriculture includes practices such as:

- No-till or minimum tillage. Use of cover crops, crop rotation and compost and animal manure to improve soil fertility.
- Use of fewer chemical inputs and of measures to conserve water and soil (horizontal cropping to avoid

erosion).

- No slash and burn, and instead permanent production systems with intercropping, mixed plantations and agroforestry systems.
- More genetic biodiversity of target species.
- Managing wild harvest systems to support sustainable harvest quotas.
- Holding aside parts of the production area for biodiversity conservation and spontaneous vegetation.
- Managed grazing practices to stimulate plant growth, soil carbon deposits and overall pasture and grazing land productivity.
- Training producers in rural waste management and looking for ways to reduce greenhouse gas emissions.

Consider including these practices in the production of your ingredients.

[Aliet Green](#) is a regenerative producer and exporter of organic coconut sugar and vanilla beans. The company has been able to balance the demands of ecological conservation and social responsibility with efforts to become internationally competitive. In an interview, Lastiana Yuliandari of Aliet Green said that “agroforestry has more positive effects on the environment and allows small family farms to depend on not just 1 species or crop, but a diverse set of crops to generate new sources of income”.

Tips:

Familiarise yourself with the whole production system of the natural ingredient you export and identify how this production can be sustainable and nature positive.

Remember that even if your natural ingredient is produced in a way that is already contributing to biodiversity and environmental conservation, there may still be improvements you can make. For example, by [promoting regenerative and nature positive production](#) among your producers.

Watch this video to understand more about [analogue forestry and regenerative farming](#).

5. Use green processing technologies

Going green is not only about interventions at the production level. You can also make a difference in the post-harvest processing of your natural food additives. Potential areas of intervention include energy and water efficiency and waste management practices. Take a look at the [International Fragrance Association's \(IFRA\) Toolbox](#), which provides good practice resources and tools to help you reduce your greenhouse gas emissions (see Focus Area 2). Greening processing is important for natural food additives and should target steps such as the drying of seeds and other plant parts, extraction of fats and cleaning of gums and resins, which often rely on traditional methods using wood fuel as an energy source and chemicals for extraction.

Solar drying is a low-cost and environmentally friendly method for drying natural ingredients. Solar energy is also one of the most common green technologies available to irrigate crops. For further processing, you can use steam distillation, which involves passing steam through the plant material, and cold pressing, which is a mechanical method that presses plant material to release oils. Both of these methods can boost product quality, as they use only steam, water or heat and no solvents. This also lets you market your products as organic and get higher prices in international markets.

The first step towards introducing more sustainable processing practices is to look with your client at what areas of post-harvest processing can be made more environmentally friendly. Doing this step together is crucial as it can affect the quality of the final product.

A good example of the kinds of steps European companies are taking is [Firmenich's Firgood Technology](#), a solvent-free extraction technology that provides 100% natural ingredients. Moreover, the waste resulting from this process is clean and can be upcycled. Although this is a very advanced technology, it may inspire you to come up with your own methods to make your processing cleaner.

Tips:

Read about the [12 Principles of Green Chemistry](#) to learn how to make a greener product.

Read about the [different methods for extracting essential oils](#).

Though your budget may not be as big as that of many European companies, try talking to your clients in Europe about your ideas. They may be willing to partner with you to reduce plastic packaging and waste in the supply chain.

Read about [how solar energy is being used](#) for crop irrigation in Rwanda.

6. Green your logistics: eliminate plastic packaging and use sustainable transport

Plastic pollution is a global problem. As an exporter of natural food additives, look into your options to use renewable, biodegradable and recyclable packaging to transport and export your raw materials. European governments are also taking action to combat the use of plastics in products. For example, Spain has [imposed taxes on imports of plastic products](#). This means Spanish food manufacturers are taking steps to stop importing plastic-packaged materials. Find out about options for using renewable, [biodegradable](#) and recyclable packaging instead. These can include innovative fibres made from algae, [bamboo](#), wood paper and carton-based materials. Glass and metal may also be options, but their weight can counteract efforts to reduce freight weight to save transport fuel.

When it comes to transporting your raw material, try to be creative. [Frey&Lau](#) has developed a way to reduce CO2 emissions by combining steps in their logistics. When they receive an order, they load their packaging waste onto the lorries that will deliver their final products. This way, they avoid transports with empty lorries. Together with their packaging supplier, they have also set up a processing plant to recycle their PE canisters. The canisters are shredded, cleaned and processed into new and inexpensive packaging materials. See if you can find other exporters operating near you with whom to share containers or group raw materials into single shipments. In view of the targets set by the [International Maritime Organization \(IMO\)](#) to [reduce the carbon intensity of international shipping by at least 40% by 2030](#), these efforts should be a priority for exporters.

The EU is planning to introduce carbon pricing in the maritime sector and is setting targets for major ports to supply vessels with onshore power as a measure to reduce the use of fuels that pollute the environment and harm air quality. This means European companies will be paying more attention to their carbon footprints. For this reason, you should aim to use sea freight over air freight wherever possible. This is also more cost-effective and reliable, and there are fewer limits on the transport of hazardous materials.

Tips:

The UN has approved a [specific metal drum that can be cleaned and reused](#), which is very useful if you export hazardous and volatile oils.

Sea freight takes more time. Encourage your clients to plan ahead longer and avoid last-minute purchases that require air freight to arrive on time.

Remember that not all products can share the same container, as some are sensitive to odours or other contamination.

If you make changes to your packaging, check with clients first to be sure it meets their requirements and actually makes processing and handling easier.

Read about the [EU's Fit for 55 climate goal](#).

7. Implement circular economy practices and upcycling in your business

The circular economy plays an important part in EU Green Deal efforts to achieve a carbon-neutral economy by 2050. In March 2020, the EU introduced the [Circular Economy Action Plan](#) to support businesses that implement circular business models. [Firmenich](#) (Switzerland), one of the EU's largest flavour and fragrance companies, has set a zero-waste-to-landfill goal for all of its manufacturing and non-manufacturing locations by 2050. Its sustainability report states that “the way to a low-carbon economy is through sustainable production patterns that produce less waste”.

The circular economy is a concept focused on minimising waste and maximising resource utilisation. By taking circular economy steps in your export business, you can reduce the negative impact of your operations on the environment while at the same time reusing waste material from your production process as a source of clean energy. Put simply, circular economy practices are a way for businesses to use waste as a resource, instead of throwing it away.

A related concept is [upcycling](#). This refers to using by-products or waste material to make new, higher-value products instead of throwing them away. A good example is the [Peel Pioneers](#). They extract natural ingredients from fruit peels, such as oranges and lemons, that would otherwise be thrown away, and turn them into high-value essential oils for the food industry. Watch the video on [Sustainability in Food Ingredients](#) to learn more about how to turn traditional waste materials into high-value products.

Upcycling is closely related to a good [waste management system](#). Some steps you can take to set up a waste management system at your company include:

As a first step, conduct a waste audit to understand the amount and type of waste generated by your company, for example at the production level.

Based on this, develop a waste management plan that sets out your objectives, targets and actions to minimise waste generation and maximise recycling.

Your employees and producers need to be aware of your plan, so educate them about your waste management policies.

Set up waste reduction initiatives such as reducing packaging and reusing materials.

Set up a recycling programme to separate recyclable materials from waste.

Figure 2 shows the circular approach of 1 large European flavour company, [TREATT PLC](#). They use 100% of oranges, including the peel, pulp and any leftover seeds, which they upcycle into sustainable products that then generate added revenue for farmers and export businesses.

Figure 2: Example of a circular approach where nothing goes to waste



Source: [TREATT PLC](#), 2022

8. Look for financial support to go green

There are many organisations and private investors that offer financial support for efforts to go green. Many governments also have grant opportunities for businesses involved in exporting natural ingredients. These grants fund a variety of activities, including product development and supply chain management. For example, the [International Climate Initiative](#) (IKI) offers grants to businesses in developing countries that are working on climate change mitigation and adaptation and on forest and biodiversity conservation.

You and your suppliers can also apply for [support from microfinance institutions](#), which provide smaller loans than development banks. Some of them finance small SMEs and farmers. Most importantly, microfinance institutions are expanding their support for companies committed to environmental protection and climate change adaptation. If you want to benefit from this support, you have to prove your willingness to become a green business.

Some more initiatives that you can look into for financial support are:

- [Oiko Credit](#) provides loans to organisations working on financial inclusion, agriculture and renewable energy in Africa, Asia and Latin America.
- [Root Capital](#) offers credit and capacity building for small and growing agricultural businesses around the globe.
- [Impact Finance](#) provides loans to companies within 5 subcategories: small-scale producers, agro-forestry, financial inclusion, circular industry and integrated farming.
- See the database of the [Global Environment Facility](#) (GEF), which has large funding opportunities for country-wide programmes and also provides funding for individual SMEs.
- Explore [EU programmes that support countries with climate, environmental and energy efforts](#).
- Check with your local agriculture development bank if they offer loans for climate finance as well as for equipment purchases or other capital needs you may have.

Tips:

It can be useful to learn more about how to ask banks for financing, for instance through this [free e-course from the International Trade Centre](#).

Read the [Green index 3.0](#) to understand how financial institutions determine how 'green' they are. This framework is used by the green and inclusive finance sector to manage environmental performance.

9. Bring all these tips together and offer your clients a unique selling point (USP)

Going green with full supply chain transparency can help you more easily establish long-term business relationships, built on mutual trust, with your importers. Plus, showing your real commitment throughout the supply chain can make importers more willing to support you in unforeseen or challenging situations.

Most European companies purchase raw materials from large international traders, who have the advantage of access to nearly limitless stock. However, these traders often do not keep track of their product origins, production conditions and environmental impacts. This is where you can make a difference by offering clients full supply chain traceability and the story behind production. In fact, opening up the 'black box' of production can have a decisive impact on your business and become your unique selling point.

Table 2 below shows the areas on which the Fair for Life standard assesses companies on social and environmental sustainability. Think about these aspects when telling your own story, and share your story with clients. For example, how are you engaging in green and ecological production? How are you helping to conserve biodiversity, soil and water? How are you improving the climate resilience of your producers? Describe where your product is sourced, who is involved, under what conditions, and the traceability system you have in place. For this to work, be sure to document everything you do and give this information to your clients upon request.

You can also describe your efforts to reduce plastic packaging and greenhouse gas emissions in your marketing strategy and business manifesto. This way, you can align with the marketing campaigns of many European food additive industry players, which are focusing on green production, nature positive and regenerative farming, zero waste production, palm-oil free products and low-emissions transportation.

Table 2: Fair for Life company performance rating

Performance rating			
Chapter	For Life CSR programme content	Maximum	Company rating
1	Core principles and values	10	
2	Commitment to and management of CSR policy	10	
3	Respect for human rights and decent working conditions	10	
4	Respect for the environment	10	
5	Local development and community relations	10	
6	Trading and supply chain relations	10	
7	Empowerment	10	
8	Traceability, transparency and respect for consumers	10	
9	Managing certification and performance	10	
Total performance rating score			

Source: [Fair for Life](#), 2023

Tips:

To show clients what you can do, [use storytelling strategies](#) that help people visualise your product and company journey.

In your promotional campaign, explain the main threats to relevant ecosystems and biodiversity and the concrete steps you are taking to prevent and mitigate them. Illustrate this with pictures of the people involved and the landscape.

Make sure to provide evidence for your sustainability claims. This will also give you a big advantage over competitors.

Consider promoting your products on distribution platforms for sustainably-produced raw materials, such as [1-2 Taste](#).

This study was carried out on behalf of CBI by Christine Woda and [ProFound – Advisers in Development](#).

Please review our [market information disclaimer](#).