Which trends offer opportunities or pose threats on the European natural food additives market?

Demand for natural food additives in Europe is growing. Food companies are reformulating their products with natural ingredients in response to consumer demand for natural products. Although there are many openings for exports, there are also risks, such as price fluctuations, local sourcing, regulations and political uncertainty.

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1. Rising consumer concerns about synthetic ingredients

The trend of removing synthetic ingredients from food products is gaining momentum in Europe. Rising consumer awareness, media campaigns and pressure from non-governmental organisations (NGOs) are driving this trend.

According to the Oekobarometer 2017 study conducted by the German Ministry of Agriculture and Nutrition, the average German consumer’s main reasons for buying organic products include animal welfare and avoidance of additives and pesticides.
According to a 2016 Nielsen survey, approximately 70% of consumers say they avoid certain ingredients to help prevent against certain health conditions, such as obesity, diabetes, high cholesterol and hypertension. Approximately 75% of respondents to the Nielsen survey are also worried about the impact of artificial ingredients on their health. A 62% share of the respondents to the survey said they avoid mostly artificial flavours, followed by 61% who said they avoid preservatives and artificial colourants. Artificial sweeteners were cited by approximately 52% of respondents. The number one reason consumers cited for making these choices was the perceived impact these ingredients have on health, rather than them having an actual medical condition.

Several studies show links between artificial food additives and diseases. This article by Harvard Health Publishing, for example, lists various interactions between food additives and children’s health highlighted in a warning of the American Academy of Pediatrics, including that artificial colourants have been found to increase symptoms in children suffering from attention deficit hyperactivity disorder (ADHD).

This scenario provides export opportunities for natural ingredient suppliers in developing countries. Food and beverage companies in Europe are looking at a diverse range of natural food additives, such as flavourings, sweeteners and colourants.

This trend is expected to gain momentum in the coming years. As consumer awareness of synthetic ingredients grows, so will the demand for more chemical-free food products. The Food and Agricultural Organization of the United Nations (FAO) and the EU Commission also consider natural food additives as safe to use, raising their credibility. Other trends, including rising levels of obesity and diabetes, ageing demographics, concerns for food safety, demand for better quality products, will also create increased demand for natural food additives.

Suppliers of natural food additives in developing countries should look into how their ingredients can replace synthetic ingredients or complement natural ingredients.
Tips:

- Be prepared to address questions about your ingredients and provide more information to food companies because of new regulations. See the new European Union regulations on labelling the origin of primary ingredients in food, which are meant to provide more transparency for EU consumers about food origin. According to this regulation, the origin of primary ingredients must be indicated if different from the origin of the food. This new legislation will come into force in April 2020.

- Learn more about your raw material suppliers, especially growers and farmers. European buyers are keen to know about raw material origins and their growers and farmers, which not only creates trust and transparency, but also allows buyers to communicate this information to their customers.

- Do research on what natural ingredients can replace synthetic ones and discuss it with buyers and R&D professionals. Make sure you can back up any claims with evidence. For more information on natural food additives, visit the Food Navigator website, look up blogs and articles and visit trade shows to see trends in innovation.

2. Climate change causing higher volatility of agricultural crop supplies and prices

Agricultural commodity supplies and prices have always depended on external conditions, such as weather, farming circumstances, trade policies and financial markets. However, climate change and its effects on the environment are causing higher volatility because of commodity prices and supplies.

Agriculture is expected to be one of the most affected sectors by climate change in the future. Climate change is expected to reduce agricultural productivity, increase degradation of soil and water resources, create new health challenges to rural populations and livestock, increase vulnerability and reduce the adaptive capacity of rural communities.

Producers in developing countries are especially vulnerable to the impacts of climate change. These countries have small growers which have limited technological and financial resources to adapt and recover from the effects of climate change, such as poor harvests, erratic weather conditions and difficulties with obtaining agricultural inputs.

Some farmers in developing countries are addressing this issue by switching to drought-tolerant crops. For example, maize producers in Bulawayo, Zimbabwe, switched to rose geranium to produce geranium essential oil.

Another example of a drought-resilient replacement crop is the acacia Senegal tree used for the production of gum arabic. Acacia senegal trees have been planted in some dry areas in Kenya to mitigate climate change, boosting the local economy and communities.
Chart 2 illustrates the estimated effects of climate change on agricultural food production and exports in selected regions by 2050. According to the State of Agricultural Commodity Markets report of FAO, the effects of climate change will vary by region. Consumer food prices are expected to increase in West Africa by 5.6%, in India by 4.6%, in the rest of South Asia by 1.3% and in North Africa by 1.2%.

Climate change is expected to impact crop production in South Asia and sub-Saharan Africa the hardest in the future. Crop production in these regions is expected to decline, making these areas more dependent on imports. Temperate regions, such as Europe, could start to export more to North Africa, sub-Saharan Africa and Southeast Asia.

This development could create a deeper economic divide between developing and developed countries by 2050. While trade from Europe, North America and Central Asia is expected to increase by US$15 billion, trade between countries in the southern hemisphere is forecast to be worth US$4 billion. Sub-Saharan Africa is expected to be the hardest hit region, including worst-case scenarios projecting it to have to import all of its agricultural products from other regions.

West African farmers are expected to be among the most affected by climate change, forcing many growers in the region to change crops. Adapting production methods, such as switching to organic agriculture, can improve yields and reduce environmental footprint, in addition to mitigating the effects of climate change. East Africa, by contrast, is the only African region expected to see an increase in exports by 2050.

Climate change affects some crops more than others. For example, citrus plants are sensitive to rainfall, which makes them particularly vulnerable to climate change in the future. Essential oils from citrus fruits, which are byproducts of the citrus industry, are increasingly used as flavours in the food industry.

Natural thickeners and emulsifiers, such as gum arabic and guar gum, on the other hand, are expected to be less affected by climate change as they come from more drought-resistant crops. Rising temperatures could affect production of seaweed extracts, such as agar agar and carrageen, however technological innovation could mitigate this problem.

Expect to see more volatility in supply and prices of agricultural commodities in the coming years.
This movement is likely to cause demand swings for certain natural ingredients, including food additives.

Shifting to less water-demanding and higher-value crops may mitigate the reduction in water availability caused by climate change. Suppliers of natural ingredients in developing countries should prepare for and anticipate these changes years in advance. Producers in developing countries can also implement water usage and crop management plans, including changing planting dates, planting densities and irrigation regimes.

Some specific farming practices, such as organic farming, can improve soil structure and water retention. Other positive effects of organic farming on the environment include combating desertification, improving biodiversity and mitigating other effects of climate change.

IBIS Rice, for example, is a Cambodia-based conservation enterprise that has set up an ambitious project to produce rice while using less water and improving biodiversity. Established in 2009 to preserve forests and wetlands and protect the endangered giant ibis — Cambodia’s national bird — the enterprise sources and exports organic jasmine rice from 1,000 farmers, as well as finished rice products. The project has developed an export market for Cambodian rice while protecting more than 500,000 hectares of wetlands and conserving more than 50 animal species.

Tips:
- Keep yourself up to date on the prices of natural food additives and other commodities that may affect prices of natural food additives by visiting trade shows and checking company websites and online platforms that offer food additives.
- Learn more about the longterm trends of food additive prices in online forums and news sources that deal with particular food additives. For example, this blog on gum arabic and this article on guar gum provide updates on price developments and current trends in the market for these products.
- Anticipate price developments by monitoring crop outlooks. Online portals, such as FreshPlaza, publish news articles on crop forecast.

3 . Organics are on the rise

There appears to be no let-up in the growth of the organic food market. The global organic food and drink market has grown from almost nothing in the 1990s to over US$100 billion in 2018. Europe has one of the largest markets for organic products in the world.

Table 1. Growth rates for the European organic food and drink market 2012–2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues (€ billion)</th>
<th>Revenue Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>20.9</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>22.1</td>
<td>5.7</td>
</tr>
<tr>
<td>2014</td>
<td>24.0</td>
<td>8.6</td>
</tr>
<tr>
<td>2015</td>
<td>27.4</td>
<td>14.2</td>
</tr>
<tr>
<td>2016</td>
<td>30.9</td>
<td>12.8</td>
</tr>
<tr>
<td>2017</td>
<td>34.3</td>
<td>11.0</td>
</tr>
</tbody>
</table>
According to Ecovia Intelligence, the European organic food and drink market was valued at €34.3 billion in 2017. Up until 2014, it had been growing at single-digit rates, then increased to double digits from 2015 onwards. Market projections indicate continued growth at healthy rates in the coming years. The largest organic markets in Europe are Germany and France, each valued at €10 billion and €7.9 billion respectively. You can find more information about the most promising countries and products in natural food additives in the CBI study on demand for natural food additives in Europe.

Chart 3: Average organic food expenditure per capita 2017

Note: All figures are rounded

Chart 3 shows that consumers in northern European countries, such as Switzerland, Denmark, Sweden and Luxembourg spend the most on organic products, respectively €288, €278 and €237 per capita annually. Organic foods have the highest market share in Denmark at 13.3%, Sweden (9.1%) and Switzerland (9%).

The growing demand for organic products translates into demand for natural food additives, since European organic standards prevent the use of many synthetic ingredients in food products. For example, many organic food companies use natural flavours, such as essential oils and oleoresins, as well as natural thickeners and emulsifiers, such as gums and seaweed extracts.

Many organic food and beverage companies also prefer to use natural sweeteners, such as stevia and coconut sugar. Such sweeteners can have a higher nutrition profile than sugar, sitting well with the healthy positioning of organic foods.

Indonesia’s Aliet Green makes a good example of an organisation capitalising on this trend. Based in Yogyakarta, the women-owned social enterprise has set up supply chains for organic and fair-trade agricultural products. It was the first organisation in Indonesia to export organic and fair-trade coconut sugar, which is used as a sugar alternative. In 2018, Aliet Green was a finalist at the Sustainability Leadership Award category and its organic coconut sugar was second place in the Sustainable Ingredient Award category at the 2018 Sustainable Food Awards.
Tips:

- Connect with distributors that supply to organic food and drink producers. See the [CBI study on finding buyers](#) in the natural food additives sector.
- Consider supplying organic ingredients. Look at organic farming criteria and organic certification requirements. For more information on scientific and technical research on organic farming visit [Fibl](#).
- Visit [Ecovia Intelligence](#) and [IFOAM](#) for more information on the organic food and drink market.
- Do research on what additives are allowed by organic standards. For example, look at the [EU organic regulations](#). By using this information, you can target buyers who deal with organic food and beverage manufacturers.

4. European producers are sourcing locally

In spite of the globalization trend, European food companies are increasingly looking at sourcing locally. In addition to lowering costs, sourcing locally usually entails using ingredients with lower environmental footprints.

Estimates indicate that approximately [72% of industrial buyers](#) prefer to source locally. For food companies, sourcing locally provides greater flexibility and control, enabling them to build relationships with suppliers possibly within their community or region, based on communication that is free of language and cultural barriers.

For example, French stevia company Stevial sources its raw materials as locally as possible. Despite stevia being usually grown and processed in Asia and Latin America, Stevial sources from [Southern Europe and North Africa](#), processing most of its production at the Stevia Natura facility in France. The company aims to source all of its stevia from Europe by 2020.

Natural food additives sourced from and produced exclusively in developing countries, such as gum arabic and guar gum, are likely to be less affected by this trend. The [global gum arabic market](#), for example, is projected to grow at an average annual growth rate of 5.4% between 2018 and 2025.

Thickening and gelling agents, such as agar and carrageen, are also expected to be less affected by the trend towards local sourcing. The biggest carrageen producing countries are the Philippines, Indonesia, Tanzania, Malaysia and China. [The global seaweed extracts market](#) is expected to grow from US$14 billion in 2018 to US$21 billion in 2023.

Many natural sweeteners such as coconut sugar, palm sugar and yacon syrup are not grown in Europe, so they are also likely to be less affected by the local sourcing trend. Some Asian companies are focusing on such natural sweeteners to help mitigate the risk of buyers switching suppliers. Chinese company Guilin Layn Natural Ingredients, for instance, focuses on natural sweeteners. Its main product is monk fruit, which is used as a natural sweetener, but it has also created a sweetener blending monk fruit and stevia, which is marketed under the brand Lovenia. Guilin Layn has applied for [market approval of monk fruit sweeteners](#) with European regulators, aiming to enter the European market in the end of 2019.

European food companies prefer to source locally when possible, posing a risk to some ingredient suppliers in developing countries. Such suppliers may be advised to focus on ingredients that are not grown in Europe.

Long-term partnerships are growing in importance to European buyers when sourcing ingredients.
Some buyers visit growers and suppliers in person, which shows that the ability to maintain reliable business relationships is important to them.

Suppliers of natural food additives in developing countries should take this into account and invest in strengthening business partnerships. Reliability and quality of ingredients is imperative when dealing with European buyers, but the growing number of stricter EU regulations on food additives and the growing reliance on certification schemes will likely make buyers more demanding in the future.

**Tips:**

- When communicating with buyers, make sure to demonstrate reliability. Make sure to be responsive, honest and transparent in relation to what you can deliver, as well as about the quality of your products. Prioritise longterm trade partnerships based on trust. If you can, meet distributors in person at trade shows, as closer contact increases your chances of creating business relationships. See the CBI study on doing business with European buyers of natural food additives.

- Prepare arguments to show buyers why your ingredients are better or as good as competing ingredients produced in Europe. You can stress quality, price, social aspects, etc. For example, by supplying fairtrade or organic ingredients, you can charge a premium. Using reputable labelling schemes also makes your food additives more competitive in the European market.

- Make sure the quality of your supply is high and consistent. Back up your claims by adopting standards and certification schemes. Relevant certifications include organic, fair trade, UEBT and Aquaculture Stewardship Council.

5. Technology and transparency growing in supply chains

Food and drink manufacturers are constantly looking for ways to improve transparency and traceability in their supply chains. New technologies, such as blockchain, present an opportunity.

In the food industry, it is important to identify and trace each product to its origins. Many problems occur in supply chains, such as adulteration and mislabelling or issues concerning food safety and product recalls. Blockchain technology provides many benefits to food companies as well as suppliers in developing countries.

Illustration 1. Blockchain technology

Source: [www.sathguru.com](http://www.sathguru.com)
Many food companies and retailers are experimenting with blockchain technology projects. In April 2019, Nestlé partnered with French retailer Carrefour on a blockchain initiative to allow shoppers in France to access information about an instant mashed potato product of Nestlé’s, tracing back the journey of the product and its ingredients from the Nestlé factory to the retailer.

In 2017, various food companies, including Unilever, Dole and Walmart partnered with IBM to explore the potential of blockchain technology in food supply chains. Walmart uses blockchain to monitor the supply of its pork from China, while Unilever, Dole and Tyson also use the technology for similar purposes.

There is currently a big push for greater traceability and transparency in food supply chains from consumers and retailers alike. Incorporating blockchain is one part of this movement. Suppliers in developing countries should be open to joining in on such projects and be willing to share information with potential partners.

Blockchain technology can increase transparency and traceability in food additive supply chains. For instance, some natural essential oils are associated with unethical sourcing, such as plant materials being picked by children, slave labour or forced labour. In addition to social issues, environmental concerns like chemical use and harvesting methods are also increasingly on buyers’ radars. Blockchain enables all actors in the supply chain to trace natural essential oils, flavourings and other additives to the crop, harvesting methods and persons involved. This technology can also provide information on exact sources, standards and certifications, processing methods and shipping details. All members of the supply chain network agree on the amount of data acquired at each stage.

The complexity of blockchain technology is one of the major obstacles for its implementation, which involves collaboration among all stakeholders. Because it is still a relatively new technology, blockchain lacks in standards of implementation, but thanks to its many advantages, it is expected to be more widely adopted in the next five years.

Tips:

- Communicate with buyers about their specific requirements for transparency and traceability. Before engaging in specific practices or investing in technology, check with buyers whether there is a demand for it. Be willing to introduce new technologies in your supply chain, when requested by trade partners.

- Educate yourself on new technologies that improve traceability in supply chains. You can find news on innovation in supply chain technologies on websites such as Supply Chain Digital and Supply Chain Movement.

- Look into how blockchain technology can benefit your company. Blockchain technology is expected to be implemented in supply chains in the future, as European buyers may start introducing it in the coming years. This article provides an outline of the major benefits of this emerging technology.

6. Highly regulated market

Europe has some of the strongest regulatory frameworks for food products in the world. These regulations have been getting stricter along the years, creating barriers to market entry for ingredient suppliers in developing countries.

In December 2008, the European Union introduced Regulation (EC) No 1333/2008 additives. In 2011, the regulation was finalised, comprising a full list of approved food additives in Europe called...
the Union List. The regulation only allows food additives which are included in the Union List to be used in food products in the European Union. For an additive to be approved by the EU, it has to meet the following three criteria:

- Consumption of the additive doesn’t pose a safety threat for the consumer
- Existence of a reasonable technological need
- Consumption doesn’t mislead consumers

**Regulation (EC) No 1331/2008** establishes the common authorisation procedure (CAP) guidelines for the authorisation process of a food additive and **Regulation (EU) No 231/2012** determines the purity criteria which must be fulfilled by all the additives on the Union List.

Some food additives which are allowed for consumption in the United States are prohibited or restricted in Europe because of stricter EU regulations. For instance, the use of potassium bromate and azodicarbonamide (ADA) in baked goods is allowed in small quantities in the US, while Europe and a number of other jurisdictions have banned their use because these substances are linked to cancer in scientific studies. Similarly, butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT), which are preservatives and flavour enhancers, are rigorously monitored and restricted by the EU for potentially being linked to cancer in the human body.

The European Commission recently passed **Regulation (EU) 2018/775** of 28 May 2018 which mandates food business operators to disclose the origin of primary ingredients on their labels. The purpose of this regulation is to provide more transparency for consumers. As a result, in case a food product and its primary ingredients come from different origins, the primary ingredient’s country of origin should be labelled separately. This regulation applies from 1 April 2020.

Strict regulations in Europe can be a major challenge for food ingredient and food additive suppliers in developing countries. The US and Asian markets have lighter regulations and are therefore easier to access in terms of legal compliance.

**Tips:**

- Work closely with importers to ensure your documentation is up to date and compliant with regulations.
- See the CBI study on preparing technical data sheets, safety data sheets and sending samples of natural food additives for more information on the expectations of European buyers with regard to product documentation.

### 7. Brexit and political uncertainty

The uncertainty over Brexit is affecting the British and the European economies. The UK is scheduled to leave the EU on 31 October 2019, in which case natural ingredient suppliers may have to treat the UK as a separate market from the EU.

The Food and Drink Federation (FDF) in the United Kingdom issued a range of materials to help food companies navigate through problems related to Brexit. The UK’s Department for Environment Forestry and Rural Affairs also produced guidelines in case of a no-deal Brexit.

Supply chains of food manufacturers would be affected in case tariffs are imposed between the UK and EU and other countries. At the moment, products move freely between EU and the UK, but food companies could face supply chain disruptions.

Although the UK has one of the largest food markets in Europe, many processed foods and raw materials come from outside the UK. It may be better for natural ingredient suppliers to focus on...
the EU market until there is some resolution to Brexit and the conditions to exporting to the UK.

**Tips:**
- Focus on non-UK markets, such as Germany, France, Italy, Spain and the Netherlands until the Brexit process and its outcomes are clearer. Stay up to date by following news and getting feedback from European partners. See CBI market statistics and outlook for natural food additives for further information on what country markets to target.
- Learn more about [Brexit and its food industry implications](#).

For more information and updates on how Brexit will affect British businesses visit [the website of the UK Food and Drink Federation (FDF)](#).

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