

Exporting gums for food to Europe

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European food and drink manufacturers need gums for their unique functional properties. Gums are indispensable for manufacturing a wide range of food and drinks. However, the production of many gums requires conditions which are not available in Europe. European manufacturers must source their gums outside of Europe and this provides opportunities for producers in developing countries. As each of the many applications requires very specific gum qualities, you need to differentiate your products by type and grade.

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1. Product description

Gums are mixable in water and soluble in liquids that dissolve resins. The following natural gums are frequently used by European food and drink manufacturers:

Name of gum	Main botanical origin(s)	Main geographic origin(s)
Acacia gum (Gum arabic)	<i>Acacia senegal</i> (L.), Willdenow var. <i>senegal</i> and <i>Acacia seyal</i> (Syn. <i>Vachellia</i> <i>seyal</i> var. <i>seyal</i>)	Sub-Saharan Africa gum belt from Senegal to Somalia
Guar gum	<i>Cyamopsis tetragonoloba</i>	Pakistan, India
Locust bean gum (LBG)	<i>Ceratonia siliqua</i>	Mediterranean region: stretching from Southern Europe and Northern Africa to the Middle East and into Iran
Tara gum	<i>Caesalpinia spinosa</i> (Molina) Kuntze	Peru, Bolivia, Chile, Ecuador, Colombia, Venezuela and Cuba

Konjac gum	<i>Amorphophallus konjac</i> K. Koch	Subtropical East Asia: from Japan to China, and south to Vietnam and Laos
Gum karaya	<i>Sterculia urens</i> and <i>Sterculia setigera</i>	India and Africa: Mali, Senegal, Sudan
Gum tragacanth	<i>Astragalus</i>	Southwest Asia: Iran and Turkey

Gums are used in the food industry for their thickening, stabilising and emulsifying functionalities. The functionalities and applications differ between gums. For example, acacia gum (gum arabic) is mainly used as a stabiliser in beverages. It inhibits sugar crystallization in soft drinks. Locust bean gum has different functionalities, such as maintaining ice cream's creamy texture by controlling ice crystal formation.

See our study on [exporting gum arabic to Europe](#) for a detailed analysis of the acacia gum market.

Konjac can also be used as a food and is widely used in food supplements for maintaining a healthy weight. However, this factsheet only analyses the market for konjac gum as a food additive.

	HS code	E number / INS number	CAS number
Acacia gum	130120 (Gum arabic)	414	9000-01-5
Guar gum	13023290 (Mucilages and thickeners, whether modified or not, derived from guar seeds)	412	9000-30-0
Locust bean gum	13023210 (Mucilages and thickeners, whether modified or not, derived from locust beans)	410	9000-40-2
Tara gum	130239 (Mucilages and thickeners from vegetable product, whether modified or not, excluding from locust beans, locust bean seeds, guar seeds and agar-agar)	417	39300-88-4
Konjac gum	425i	37220-17-0 (konjac flour)	

Gum karaya	130190 (Lac; natural gums, resins, gum-resins and oleoresins; excluding gum Arabic)	416	9000-36-6
Gum tragacanth	413	9000-65-1	

Tips:

- Identify the botanical source of your raw material. You must have a thorough understanding of the factors determining your product's specifications. The suitability of your gum for a specific food application depends largely on product specifications.
- For more information on classifying gums [you can read our workbook for the preparation of Technical Data Sheets for natural ingredients](#).

2. What makes Europe an interesting market for gums?

Food manufacturers increasingly use gums to replace fats

European consumers are increasingly looking for low-fat products and particularly products without trans fats and other unsaturated fats. Obesity is a major health issue in Europe and several European governments have even taken policy measures to confront this problem.

However, many food and drink manufacturers use fat to improve the texture (i.e. mouth feel) of their products. Simply removing fat from the ingredients list is not an option, as consumers are not willing to accept an inferior texture. Therefore, the formulation of foods with less fat requires food and drink manufacturers to find other solutions for the improvement of texture.

Gums offer them such a solution. They have the ability to perform in a wide range of functions, including thickening, emulsifying, stabilising, suspending, gelling and mouth-feel improvement. Which specific gum is most suitable depends on the application.

Tips:

- Document and promote the ability of your product to replace fat.
- Assist food manufacturers with reformulation by providing knowledge on processing characteristics.
- Read more about the [identification of potential applications](#) such as fat replacement in Step 8 of our workbook for preparing Technical Data Sheets.

Nutrition claims relating to fibres in gums

European consumers are increasingly looking for functional foods with health benefits. Various gums (e.g. acacia gum (gum arabic) and guar gum) contain soluble dietary fibres, which are indigestible parts of gums. European consumers believe that these soluble fibres are good for their health.

However, the [European Food Safety Authority \(EFSA\)](#) has [not yet approved any health claims](#) related to dietary

fibres. Therefore, food manufacturers are not allowed to make health claims relating to soluble dietary fibre to promote their products to consumers.

The only claim they are allowed to make relating to the high fibre content of several gums is a nutrition claim, as listed in the Annex of Regulation (EC) 1924/2006:

- **Source of fibre:** A claim that a food is a source of fibre, and any claim likely to have the same meaning for the consumer, may only be made where the product contains at least 3 g of fibre per 100 g or at least 1.5 g of fibre per 100 kcal.
- **High in fibre:** A claim that a food is high in fibre, and any claim likely to have the same meaning for the consumer, may only be made where the product contains at least 6 g of fibre per 100 g or at least 3 g of fibre per 100 kcal.

Gums are generally used in concentrations below 1% when they are added to foods for their thickening, stabilising and emulsifying functionalities. This is insufficient for the above nutrition claims. However, they may be used in much higher concentrations for functional foods. Therefore, a growing demand for functional foods may cause a significant increase in demand for the respective gums.

Tips:

- Be careful with health claims in your promotion. Keep track of possibilities to make health claims related to dietary fibre and polysaccharides (the chemical name for the substances that gums are made of). Subscribe to newsletters such as those from [FoodNavigator](#) or regularly check the [EU Register of nutrition and health claims](#) made on foods for updates.
- Find out how much fibre your specific gum contains and if it concerns soluble or insoluble fibre.
- Include information on the benefits of soluble fibre in promotional materials, and point out the difference with insoluble fibre.
- Target suppliers to the functional foods industry, which uses functional ingredients and focuses its promotion on health benefits.
- See the [European Union rules on nutrition claims](#) in Regulation (EC) 1924/2006.

Health claims for guar gum and konjac

Unbalanced blood cholesterol levels are one of the many health concerns of European consumers. The European food industry has researched how to address this health issue and found out that both guar gum and glucomannan contribute to the maintenance of normal blood cholesterol levels. Glucomannan is an extract from konjac flour and has [different quality specifications](#) from konjac gum.

This health claim was approved by the [European Food Safety Authority](#) (EFSA) in 2010 and included in a [list of permitted health claims made on foods](#) in 2012. The conditions of use for guar gum and glucomannan (konjac mannan):

- **Guar gum:** The claim may be used only for food which provides a daily intake of 10 g of guar gum. In order to bear the claim, information shall be given to the consumer that the beneficial effect is obtained with a daily intake of 10 g of guar gum.
- **Glucomannan (konjac mannan):** The claim may be used only for food which provides a daily intake of 4 g of glucomannan. In order to bear the claim, information shall be given to the consumer that the beneficial effect is obtained with a daily intake of 4 g of glucomannan.

EFSA also approved a health claim for 'glucomannan in the context of an energy-restricted diet contributes to weight loss'. The claim may be used only for food which contains 1 g of glucomannan per quantified portion. In order to bear the claim, information shall be given to the consumer about the intake. The beneficial effect is obtained with a daily intake of 3 g of glucomannan in three doses of 1 g each. Consumers should take the

glucomannan together with 1-2 glasses of water, before meals and in the context of an energy-restricted diet.

If companies can provide convincing research to EFSA about the health benefits of gums, then health claims can lead to much higher demand for gums.

Tips:

- Inform potential buyers about applicable health claims and how they can make use of them.
- Only promote the health claims related to konjac when you can supply glucomannan according to the [specifications for glucomannan as laid down in EU legislation](#). Otherwise, the health claims cannot be made.

Consumer demand for ethical products

European consumers are increasingly interested in ethically sourced products. This provides opportunities for exporters that produce fair-trade and environmentally friendly gums.

First of all, you need to provide a lot of detailed information to buyers on your production process. European buyers need their supply chain to be transparent, to make sure the ingredients they use in their products are ethically sourced.

For this purpose, they have to cooperate with producers in the countries where they source from. They may ask you to fill in a questionnaire or they may audit your company.

In addition, buyers often stimulate suppliers to improve the sustainability of their business by taking appropriate measures. Suppliers do not necessarily need to be certified accordingly. Specific demand for organic certified LBG, konjac gum and glucomannan is still very small. However, buyers appreciate certificates as proof.

Finally, buyers need your help to develop stories. European consumers are becoming more interested in the story behind the products they use. European manufacturers respond to this need by actively communicating about the ingredients in their products.

They write compelling stories about their products, the production process, origin, local benefits and traditions. They can also include information on measures taken by you to improve the sustainability of your business.

Tips:

- Make your gum traceable to the farmer or collector by registering all your supplies in your documentation.
- If you source your gums from collectors, implement a natural resource management system, in cooperation with collectors. This will help you protect the gum trees and their environment.
- Ask your association to prepare a Code of Conduct for the association members. A Code of Conduct sets rules for the association members on fair social conditions (e.g. no child labour) and production conditions (e.g. no mixing with other ingredients unless agreed by the buyer). You can then make documentation about the Code of Conduct available for interested buyers.
- See ISO 26000 for [guidance on social responsibility](#).

Europe is a stable gums market

Europe accounts for an estimated third of the global gums market and shows steady year-on-year growth.

Table 1 shows global market sizes for the main gums for food. In terms of size, the European markets for acacia gum (gum arabic), guar gum and locust bean gum are far bigger than the markets for konjac gum, tara gum, gum karaya and gum tragacanth.

Table 1: Global market sizes for gums for food (excluding China), 2014-2016

	Volume (thousands of tonnes)	Value (€million)		
	2014	2016	2014	2016
Acacia gum (gum arabic)	51	54	152	171
Guar gum	53	59	110	76
Locust bean gum	11	12	85	101

Source: The world of food ingredients, June 2015 and June 2017 issues

The performance of the markets for acacia gum (gum arabic) and locust bean gum was strong in the period 2014-2016. The market for guar suffered from price decreases. Read more about the guar market development under the section on market developments for specific gums.

The size of a country's food and drink industry is representative of the relative size of its gum markets.

In the food industry, gums are commonly used in texturizing systems. The strong presence of manufacturers of texturizing systems and their sales offices in Northwest European countries such as Germany and France indicates that demand for gums is particularly big in these countries.

In the next three years, the European demand for gums is expected to increase slowly. The authors of the Chemical Economics Handbook Hydrocolloids estimate a consumption growth of 0.4-2.0% annually between 2015 and 2020.

New product development and particularly increasing demand for low-calorie and low-fat food products will drive growth in the consumption of gums. The section below on trends on the European gums market provides more explanation on this topic.

Concerns over the sustainability of supplies of many gums are slowing down growth. The section on competition explains these sustainability concerns.

European gum production is only small

Europe does not produce any commercial quantities of gums, except for locust bean gum. Europe is almost completely dependent on imports to satisfy demand from the food industry.

*Locust beans are the source of locust bean gum.

The European production of locust bean gum was estimated at 8 thousand tonnes for 2014. Fluctuation in the production of locust bean gum is not unusual, and is attributed to bad harvests.

European countries located in the Mediterranean area still play a large role in the processing of locust bean gum, despite the fact that labour is far more expensive in these countries than in the countries on the other side of the Mediterranean Sea. The slow-growing nature of the carob tree explains the preservation of locust bean growing in Europe. It takes the carob tree six to seven years to start fruiting, while it is mostly productive after 30 years. The old carob trees in Europe are still very productive.

Locust bean gum producers are concentrated around the Mediterranean, including Spain (5 producers), Portugal (2) and Italy (1). However, it is estimated that almost 50% of locust bean gum production in Spain in 2015 was actually made with locust beans (i.e. raw materials) imported from Morocco.

In the past five years, several Southern European countries and particularly Portugal have shown declining interest in locust bean production. They do not plant new trees, while the production of locust bean gum is becoming costlier due to higher salaries. Consequently, a long-term decline in European production is forecast because carob trees are not being replaced.

European imports of locust bean gum and guar gum are temporarily decreasing

In the period 2012-2016, imports of locust bean gum and guar gum decreased at an average annual rate of 16% in terms of value and 3% in terms of volume. Figure 3 shows developments in imports by the leading importers in Europe.

Germany, France, Italy and the United Kingdom have large food industries and are the most important end-markets for gums in Europe. Denmark and Belgium are major re-exporters. The port of Antwerp in Belgium is an important entry point for imports to (Northwest) Europe.

Lower prices for locust bean gum and guar gum were the major causes behind the decrease in value of European imports. See the following section on market developments for these specific gums for more details.

Market developments for specific gums

Your short-term opportunities in the European market for specific gums depend largely on the availability of the raw material. For example, crop failures in major countries of origin can suddenly change the global market situation.

Acacia gum (Gum arabic)

In the past three years, the market for acacia gum (gum arabic) has been relatively stable. In the Sudanese regions where most acacia gum is collected, the political situation is stable enough for a consistent supply of acacia gum.

Guar gum

Suppliers of guar gum benefited from exceptionally high prices (€15/kg) between 2010 and 2012. During those years, demand from the oil drilling industry, which uses guar gum for fracking fluids, was much higher than before. As a result, prices exploded (+400% in one year) and availability plummeted.

The scarcity had a profound impact on the gums market. Many food and drink manufacturers were trying to replace guar gum with cheaper alternatives. This offered particularly good opportunities for locust bean gum and tara gum, which have similar functional properties.

At the end of 2012, guar gum prices plummeted, as demand from the oil drilling industry decreased and guar gum production had increased. In 2013, prices stabilised at historically normal levels of around €2/kg. This has taken away pressure on food and drink manufacturers to replace guar gum and thus reduced opportunities for substitutes. Nonetheless, manufacturers have become more concerned about long-term guar gum supply security. They have also become more educated on substitutes, which stimulates their use.

Currently, new suppliers who moved into the market when prices peaked in 2010-2012 are moving out again. In 2017, the [Indian guar crop was good and kept prices stable](#).

Tips:

- Identify applications in which your product can replace guar gum and use the information for promotion.
- Keep track of developments in the guar gum market to anticipate changes in demand for your product. Remember that guar production has increased.

Locust bean gum

In 2017, the availability of LBG decreased further. Spanish crops were below average and products from Morocco did not completely compensate for the Spanish crop. According to a press release by major European LBG supplier DuPont: '[Volume harvested this year is limited and availability of this necessary raw material has resulted in significant increases in the overall cost for DuPont to produce LBG. As a result, DuPont will implement a price increase for LBG, up to 30 percent.](#)'

Tara gum

In 2017, the market for tara gum benefited from the low availability of LBG. Tara gum is a potential substitute when prices for LBG are high.

Konjac gum, karaya gum and tragacanth gum

Interest from European food and drink manufacturers in these gums has become limited. These are niche products with few applications. Nonetheless, in 2018, a major European gum company developed a [flash-heated karaya gum](#) with a high microbiological standard to stimulate sales to the food industry.

Tips:

- Monitor harvests of gums in major countries of origin such as Sudan for acacia gum (gum arabic), Morocco for LBG and Peru for tara gum to identify opportunities for entering or expanding your market. You can buy [IMR's Quarterly Review of Food Hydrocolloids](#) for quarterly market updates.
- Anticipate changes in the availability of gum from your sources and inform buyers about it to prevent a lack of sufficient volumes.

3. What requirements must gums comply with to be allowed on the European market?

Buyers in the European Union have strict requirements for natural gums. You will only be able to successfully market your product in Europe if you comply with these requirements. See our study on [buyer requirements for natural food additives](#) (including gums) for a detailed analysis of these requirements. They deal with the

following topics:

- Food safety – traceability, hygiene and control
- Contamination
- Adulteration
- Classification, labelling and packaging
- Substances allowed in the European Union
- Extraction solvents
- Food additives for colouring
- Liability
- Food safety certification
- Kosher and Halal certification
- Documentation
- Samples
- Payment and delivery terms
- Sustainability
- Certification of organic production

Quality requirements

[General specifications for food additives including gums](#) are defined by the European Commission in Regulation 231/2012 and can be found in the [Codex Alimentarius](#).

European buyers will generally analyse the composition of your gum to determine its quality. For example, locust bean gum contains galactomannans: mannose and galactose. Mannose typically comprises 73-86% of total galactomannans and galactose 14-27%. Their exact concentrations affect the functionalities of locust bean gum in food and drink applications. By consequence, many buyers have their own quality requirements. They can differ from those of other buyers depending on their application of the gum.

Buyers generally prefer a light colour and minimal odour for gums with applications as thickeners, stabilisers and emulsifiers. If the gum is light in colour and has a minimal odour, it doesn't affect the appearance of the food or drinks they produce. European buyers often prefer to use other ingredients to change colour or odour if necessary.

For European buyers, gums must be 100% natural (i.e. not adulterated through the addition of any chemicals) and 100% pure (i.e. not mixed with any other gums that have similar characteristics or gums from different tree species). Importers regularly analyse products for adulteration and stop buying from suppliers when they detect adulterants.

In addition to the quality parameters above, buyers of gums for food also consider quality consistency. They prefer a well-homogenized product (with the same quality in different containers) and suitable lot sizes (for example not small lots with different qualities). Consistency of the quality of gums is important to manufacture food and drinks with the same quality as expected by consumers.

Tips:

- European buyers expect you to have expertise about the gums you supply. For example, you must have detailed knowledge about the origin of the gums and their qualities.
- Prevent contamination by e.g. sand, stones and undesired plant parts by training collectors to cut properly, use clean containers, keep storage rooms and equipment clean, and clean the gums if necessary. Refer to the [Good Practices for Gums](#) of the Association for International Promotion of Gums (AIPG) for more details. As an alternative to the Good Practices for Gums, the [IN2NI](#) network provides Standard Operating Procedures (SOPs) and WINs (Working Instructions) for resource management and, importantly, resource use.

- Achieve higher quality consistency over the year by standardising your product's quality. You can standardise your product by establishing Standard Operating Procedures (SOP) for collection/harvesting, sorting, grading and processing practices (e.g. cleaning). Closely monitor the implementation of these SOPs through regular inspections. Offer special benefits to collectors who apply your SOPs. Alternatively, you can blend gums from different harvests (e.g. different areas) for standardisation.
- Purify the product to improve its quality. For example, purify acacia gum (gum arabic) using dry steps such as selection, kibbling, sieving and mechanical pulverisation of raw gum to produce a fine powder that easily dissolves in water. Improved purification requires more technology. After dissolution in water, remove insoluble matters (mineral and vegetable) by filtrating and sterilising of the gum syrup. Evaporate the water by spray-drying.

Labelling requirements

You are obliged to label your gum if you want to export it to Europe. The label on your product helps European buyers and customs authorities to trace the origins of your product. Another reason is to ensure safety during transport and storage.

As an exporter, you should make sure individual batches can be traced back to their origins with markings on each container. Also register in an administrative system whether the batches are produced by blending or not. Use the English language and European measurement units (e.g. kilograms) for labelling, unless your buyer has indicated otherwise.

Your labels must include:

- Product name (e.g. guar gum from *Cyamopsis tetragonoloba*)
- Batch number
- If the product is destined for use in food products (e.g. food grade)
- Place of origin
- Your name and address
- Date of manufacture
- Best before date
- Net weight
- Recommended storage conditions

If you offer organic certified gum, you should also add the name/code of the inspection body (certifier) and certification number.

Packaging requirements

Gums attract moisture and require packaging in waterproof material. Use paper or plastic (polypropylene) bags with a plastic (e.g. polyethylene) lining.

An example of a common type of packaging:

Tips:

- Always consult your buyer for specific packaging requirements.
- Facilitate recycling of packaging materials by European buyers by, for example, using bags made of recyclable material (e.g. kraft paper).
- Use common bag sizes: 10, 25, 50 kg.

- Store bags in a dry, cool place to prevent quality deterioration.
- Keep organic certified gums physically separated from conventional gums.

4. What competition do you face on the European gums market?

Competition from other suppliers of locust bean gum and guar gum

India and to a lesser extent Pakistan are the main suppliers of guar gum to Europe. Their supplies collapsed in the period 2012-2016. This was related to developments in the oil fracking industry, as described in the section on market developments.

The situation in the guar market was aggravated by the rapid increase in production areas after the price surge. Many farmers started producing (more) guar to benefit from high prices and when demand fell, overproduction caused a price drop. This price drop forced a lot of suppliers out of the market again and improved the outlook for remaining suppliers.

Spain, Italy and Portugal are the main suppliers of locust bean gum to Europe. The section on production analyses the role of these European countries in the locust bean gum market. Morocco is the main supplier outside of Europe and lower labour costs favour a shift in production to Morocco and other North African countries. Nonetheless, interest in cultivating and managing carob trees in countries such as Tunisia, Libya and Egypt remains limited.

Examples of leading gum suppliers:

- Gum arabic: [Nexira](#) (French company sourcing directly from local traders in countries of origin)
- Guar: [Haji Dossa Nutralgum](#)
- Locust bean gum: [LBG Sicilia](#)
- Tara gum: [Silvateam](#) (Italian company with subsidiary in Peru)
- Karaya gum: [Alland & Robert](#) (French company sourcing directly from local traders in countries of origin)

Tips:

- Consider the cyclic nature of gums markets when trying to export to Europe. After a year with low supply and high demand, you can expect many new entrants, which will cause oversupply and lower prices. Check price developments of the past five years to identify price cycles and determine the best time to enter the market.
- Our study on [Exporting gum arabic to Europe](#) provides more information on competition in the gum arabic market.

Entry to some gums markets requires know-how and high investment costs

For many gums, a cost-efficient, reliable production requires large investments in human resources (for training in labour skills and actual labour) and of capital (millions of euros). For example, locust bean gum (LBG) production requires investing in plantations, which is demanding in terms of both human resources (skilled labour) and finance. Moreover, some tree species need several years to mature and become productive. Finally, processing facilities need to have a large capacity to supply the large buyers, advanced technology for extraction and high food safety management standards. Without a long-term loan, investments in technology and human resources are only feasible for large, financially strong companies. [Molinos Asociados](#) is a good example of a Peruvian company that successfully entered the European tara gum market.

Tip:

- Attract capital for investment in new processing facilities in the country of origin by promoting the advantages of processing near the raw materials source.

Follow these steps to establish a facility successfully:

- Obtain concessions to resources
- Obtain access to investment capital
- Buy in knowledge on processing (e.g. technology)
- Build a small-scale pilot plant
- Hire graduates and provide coaching (personnel will require time to learn and gain experience for a successful technology transfer)
- Scale up to semi-industrial and industrial levels

Substitution of synthetic gums and products from less reliable production systems

European food and drink manufacturers are increasingly developing new products with natural gums instead of synthetic gums. They respond to consumer demand for natural products, which are perceived to be healthier.

At the same time, European food and drink manufacturers highly value reliable supplies. They increasingly substitute gums for which supplies are prone to natural and political disasters. Natural exudate gums from the African gum belt are likely to be amongst the affected gums. The collection of these gums depends largely on external factors that cannot be controlled, such as climate and the political situation.

While natural resource management may reduce the risk of scarcity in these markets, buyers are keeping an eye out for alternatives. They generally prefer products from more controlled production systems, such as plantations in stable countries, as opposed to wild collection in politically unstable areas.

Additionally, the European food industry invests heavily in Research & Development to improve the supply security of ingredients. Biotechnology and waste stream valorisation offer particularly interesting opportunities to food and drink manufacturers for achieving supply security. Xanthan gum is a clear example of a biotechnology product and pectins are a good example of waste stream products. Xanthan gum is considered a natural gum on the condition that it is produced by means of biosynthesis under strictly controlled conditions.

European food and drink manufacturers value the reliability of xanthan gum and pectin supplies. Manufacturers of these ingredients have strict control over production processes and produce very consistent qualities and quantities. Consequently, Research and Markets forecasts a significantly higher growth rate for the pectins market (7.7% annually) and xanthan gum market (3.4% annually) than for most gum markets (~0-3% annually).

In the future, biotechnology may lead to the development of more of such 'natural gums' from reliable supply chains. For example, the market for gellan gum is expected to grow rapidly. This will increase competition for the traditional natural gums.

Tips:

- Reduce reliance on wildcollected gums to improve supply security. Use gums from more reliable farming systems where possible.
- Ensure that harvesting natural gums follows a proven sustainable method. For example, organise collectors and provide them with resources (e.g. knowledge on tapping techniques) and incentives to protect the trees or plants from which they collect the gum.

- Cooperate with other companies in associations or other sector organisations and with the government to address issues of common interest, such as the protection of gum trees.
- Anticipate changes in availability of gums from your sources and inform buyers about it to prevent a lack of sufficient volumes.

Lack of scale keeps suppliers weak

The average size of suppliers is much smaller than the average size of European buyers and their number is higher. The fragmentation of supplies puts them at a disadvantaged position, as buyers can easily choose a different supplier if necessary. However, in the long term, the formation of cooperatives and scale increases might significantly improve the position of suppliers.

Tip:

- Join a cooperative or increase your scale to produce large quantities of standardised products and improve your competitive position.

Changes in global availability and newly emerging national and regional markets undermine buyer power

Most gums are commodities. Buyers, such as blenders, are generally not willing to pay price premiums for these products. Some of them even want the lowest price possible and care less about the sustainability of this kind of trade. At the same time, buyers accept strong fluctuations in market prices, which may result from changes in supply and demand.

Food and drink manufacturers cannot do without gums, nor can they easily switch to other products due to specific functionalities. In response to this, many of the largest blenders in Europe keep large stocks as a buffer against major price increases. They aim to offer a 12-month price to the food and drink manufacturers. Blenders without the stocks to cope with strong price increases by their suppliers and the subsequent inability to comply with contract agreements with their buyers can go bankrupt very quickly.

Tips:

- Check your costing to keep your prices in line with those of your competitors to remain interesting for price-sensitive buyers, unless you have special arguments for sustainability based on specification and certificates.
- Use your knowledge of price developments to determine prices in supply contracts and also inform buyers about possible increases in your costs. They will appreciate such a price information service even if prices are going up.
- Promote your efforts to stabilise supplies, such as sustainable management of sources of wild-collected materials like gum-producing trees.

5. Through what channels can you sell gums on the European market?

Figure 5: Trade channels for gums

More direct trade between food manufacturers and importers

European manufacturers in different segments of the food and drink industry increasingly need tailored texturizing systems for stabilising, thickening and emulsifying their new products. Many of them rely on blenders to do research and develop tailored solutions, such as low-cost thickeners which retain their functional properties under specific conditions (e.g. heat and acidity). This type of R&D requires close collaboration between manufacturers and blenders. See table 2 below for the relations between gum functionalities, applications and market segments.

In the past, many blenders created blends without disclosing information on the composition of the blend. Increasingly, food and drink manufacturers require transparency about the formulation of blends. They no longer rely blindly on blenders, as it could become costly for them to find another solution. Large manufacturers even skip the blenders entirely and purchase the gums directly from importers to do their own blending. Examples of importers include [Nexira](#) and [Roeper](#).

Tip:

- Benefit from the increase in direct trade between manufacturers and importers by focusing sales activities on the latter.

Direct exports to food and drink manufacturers are increasing

Exporters in developing countries are increasingly developing capacities to supply food and drink manufacturers directly. The feasibility of processing gums in the country of origin depends heavily on domestic demand, human resources and availability of raw materials. The existence of a domestic market and access to human resources is very important to drive capacity development for the processing industry and respective value addition.

European manufacturers are also more interested in engaging directly with suppliers in developing countries instead of European blenders. This is driven largely by their need for a sustainable well-documented supply of strategic, indispensable ingredients. Instead of purchasing their gums from importers, they source them directly from the country of origin.

European manufacturers need very high supply security. To achieve consistency in supplies, they often opt for large-scale contract farming or work with gum exporters who obtain their raw materials through contract farming. This gives them maximum control over production in terms of both quantity and quality. Alternatively, where production is fragmented and small-scale, local traders often play an important role in organising and consolidating production.

In general, manufacturers who source directly from the country of origin also continue to purchase from European importers. They source through different channels to secure stable supplies in case of a supply problem at one of their sources.

One of the major drawbacks of direct trade is that it eliminates the buffer function of traditional importers. Especially on markets which experience strong fluctuations in supply, for example due to climate conditions, buffers are needed to secure long-term stability of supplies. On these markets, importers will re-define their function in sustainable supply chains to assume responsibility for the storage of buffers and to reduce volatility of supplies.

Tips:

- Target manufacturers directly if you have the knowledge and technology needed to create blends for

specific texturizing solutions. You must be able to advise manufacturers on applications, including processing characteristics.

- Consider establishing a joint venture with a European company if you want to add value to your product by processing it further than only cleaning and grading. Joint ventures can provide access to capital and knowledge needed for processing activities, such as spraydrying.
- You can use the sales network of agents to find a suitable buyer. For example, you can look for commercial agents in Germany on the website of the [Federation of German Commercial Agents and Distributors \(CDH\)](#). However, once you have established a trade relationship through an agent, you can't establish a direct relationship with the buyer anymore. The sales network of the agent is protected by law.
- See our study on [finding buyers for natural food additives](#).

Table 2: Major segments for gums in order of estimated size of segment

Gum	Segment	Application	Benefits
Acacia gum (preferably <i>A. senegal</i>), gum karaya, locust bean gum	Beverages	Soft drinks	Stabilising (acidic) combinations of water, oil and other ingredients (emulsions)
Acacia gum	Beverages	Beer	Foam stabiliser
Acacia gum, tara gum, konjac gum	Dairy products	Frozen desserts	Keeping ice cream soft and creamy before it melts (preventing water crystallisation and formation of ice crystals)
Locust bean gum, konjac gum	Dairy products	(Cream) cheese	Binding water and producing a spreadable texture without imparting sliminess
Tara gum, guar gum, konjac gum	Meat	Meat	Binding water in meat products to reduce costs per kg

Guar gum, locust bean gum, tara gum, konjac gum	Bakery	Pastries, cakes, cookies	Producing soft-textured products and adhesion for coatings to maintain freshness longer
Gum tragacanth, guar gum, konjac gum	Condiments	Salad dressings, mayonnaise, ketchup	Stabilising acidic emulsions, increasing viscosity, reducing syneresis
Acacia gum	Confectionery	Chewing gum	Binding water
Acacia gum	Confectionery	Liquorice	Gelling agent and preventing sugar crystallisation
Acacia gum (preferably <i>A. seyal</i>)	Confectionery	Confectionery (for example chocolates)	Gelling or coating
Locust bean gum, guar gum, tara gum	Condiments	Sauces, soups	Stabilisation, viscosity control
Acacia gum (preferably <i>A. seyal</i>) and guar gum	Functional foods	Foods with the nutrition claims 'source of fibre' or 'high in fibre'	Providing a high content of soluble dietary fibre
Acacia gum	Flavourings	Encapsulation	Forming a hard shell around flavour particles to prevent penetration of oxidising agents, thereby preventing a loss of flavour

Many gums have synergistic effects when combined with other gums. The combination improves their performance in food and drink applications.

Tips:

- Add value to your products by blending konjac gum or glucomannan with other hydrocolloids such as carrageenan and providing guidance to food manufacturers on the application and processing properties of the blend.

- Get in contact with blending specialists to develop your own portfolio of blends.

6. What are the end market prices for gums?

Changes in availability have a significant influence on gum prices. Natural disasters, poor harvests or changing regulations are common causes of gum shortages. These shortages result in strong price increases.

Table 3: Prices and price developments for selected gums

Product	Price per kg (Free On Board)	Development
Acacia gum	<p>€2,700/tonne Free On Board (FOB) for Sudanese acacia gum from <i>A. senegal</i> (early 2016)</p> <p>€1,356/tonne Cost Insurance and Freight (CIF) for Nigerian acacia gum (February 2016)</p>	A potential outbreak of political unrest in Sudan and particularly South Sudan may cause strong price rises in the next five years.
Guar gum	€2 (2017)	Guar prices are still low since they came down in 2013.
Locust bean gum	€9 (2017)	Prices increased in 2017 due to small crops in Spain. As prices have reached a historically high level and such developments are usually cyclic, prices are expected to come down again over the next few years.
Tara gum	€7 (2017)	Peru dictates tara gum prices. Tara gum prices largely follow price developments of guar gum and locust bean gum.
Konjac gum	€9 (2017)	Prices are relatively stable. Low-quality konjac gum is available at around €7/kg. High-quality konjac gum with a very high purity and high viscosifying strength costs up to €13/kg.

Karaya gum	€8 (2018)	N/A
Gum tragacanth	€35 (2018) Australian origin, 1 tonne lot	N/A

Source: Industry sources, 2017

The following price breakdown shows what value some of the intermediaries add to gums.

Figure 6: Typical price breakdown for gums, value addition in %

Exporters and importers typically use freight forwarders to arrange transport to the importer. Costs of transport are typically around 4%, but heavily depend on the locations of the exporter and importer. The importer adds the cost of clearing the goods, inspection and storage. Finally, the sales margin of the importer depends largely on the size of the order.

If agents are involved, they typically receive a commission of a few percent (3-4%). However, their actual profit margin strongly depends on volumes sold and gross margin.

Blenders add up to a few hundred percent depending on their activities, such as spray-drying, R&D and blending.

Distributors add up to 60% to the value of the product when the orders are very small (< 50 kg).

Tips:

- Ensure that your prices reflect the quality of your product. For example, if you supply acacia gum from the *A. seyal* variety, you cannot compare your price with that of acacia gum from *A. senegal*.
- Add value to your gum by cleaning the gum and strict sorting and grading.
- Build strong relationships with your buyers. It will help you reduce the impact of global price drops for your product. Buyers are commonly more willing to pay a little extra to their preferred suppliers when prices are low.

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