

# Entering the European market for fonio

Market channels for fonio still need to be developed. This requires organising farmers, quality processing facilities and making sure food safety management is in place. Legally, there is no longer any restriction, as fonio has been approved as a novel food in the European Union. But to stimulate the sale of fonio in European market segments, you will need the help of specialised importers in health ingredients.

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## 1. What requirements must fonio comply with to be allowed on the European market?

Fonio must comply with the general requirements, which you can find in the CBI [buyer requirements for grains, pulses and oilseeds](#) on our market information platform. You can also use the [Trade Helpdesk](#), which provides an overview of market access requirements per country using HS code 10084000 for fonio. Food safety and product quality will be the most important aspects, but some buyers will also make sure your product has a positive social impact.

### What are mandatory requirements?

#### Food safety: Traceability, hygiene and control

The most important requirement for fonio grains is to make sure it is safe for consumption. Food safety and traceability should be your top priority.

As an exporter you must make sure that [pesticide](#) residues, [contaminants](#) such as Aflatoxins and [micro-organisms](#) such as Salmonella, E.Coli and Listeria monocytogenes are absent or within the limits according to European legislation.

Non-compliance can lead to temporary import stops or to stricter control from your origin country. As a supplier, you must make sure to work according to the [guidelines of Hazard Analysis and Critical Control Points \(HACCP\)](#).

#### Tips:

Read more about [pesticides](#), [contaminants](#) and [micro-organisms](#) on the website of the European Commission. Find out the MRLs for pesticides and active substances that are relevant for fonio grains by [consulting the EU MRL database](#); Search for millet (code number 0500040).

Reduce the pesticides levels by applying [integrated pest management](#) (IPM) in production. IPM is an agricultural pest control strategy that includes growing practices and chemical management.

### Novel Food

The European Union has authorised the introduction of decorticated grains (bran removed) of fonio to the market as a traditional food under the novel food regulation. The authorisation was published in the [Regulation](#)

(EU) 2018/2016 in December 2018 and has put fonio on the [Union List of authorised foods](#). Because traditional foods are considered to be safe to consumers, there are further restrictions of the use of the decorticated fonio grains.

The only things you must take into account as an exporter of fonio, are the additional labelling requirements and making sure your product does not differ much from the normal nutritional components. The name for labelling purposes shall be: “decorticated fonio (*Digitaria exilis*) grain”. Typical nutritional components of decorticated grain of fonio are:

Carbohydrates:	76,1g/100g of fonio
Water:	12,4g/100g of fonio
Protein:	6,9g/100g of fonio
Fat:	1,2g/100g of fonio
Fibre:	2,2g/100g of fonio
Ash:	1,2g/100g of fonio
Phytate content:	≤ 2,1 mg/g

## Packaging

The packaging of fonio grains must be suitable to protect the product and must comply with the [Regulation\(EC\) No 1935/2004 on materials and articles intended to come into contact with food](#). Common types of packaging for fonio grains are 25kg polypropylene bags or multi-layer paper bags.

### Tips:

Always discuss specific packaging requirements and preferences with your customers and communicate clearly what options you can offer. Poor packaging can result in buyers looking elsewhere for their products.

Check the additional requirements if your product is pre-packed for retail in the [Codex General Standard for the Labelling of Prepackaged Foods](#) or [Regulation \(EU\) No. 1169/2011](#) on the provision of food information to consumers in Europe.

## What additional requirements do buyers often have?

### Quality standards

There is no official quality standard for fonio grains, but the grains must at least be:

- safe and suitable for human consumption;
- free from abnormal flavours, odours, and living insects;
- free from filth (impurities of animal origin, including dead insects) in amounts that may represent a hazard to

human health.

Other grain defects, extraneous matter and impurities must be within the limits defined in your product specifications. As a guide, you can use and compare with the Codex Alimentarius quality standards for [quinoa](#), [sorghum](#) or [whole and decorticated pearl millet grains](#).

### Tip:

Maintain strict compliance with quality standards and deliver the quality as agreed with your buyer. Being careless with your standards will give buyers a reason to claim on quality issues.

## Certifications as a guarantee

As food safety is a top priority in all European food sectors, you can expect most buyers to request extra guarantees from you in the form of certification. Food management systems and certifications that are recognised by the Global Food Safety Initiative ([GFSI](#)) are widely accepted throughout Europe.

For cleaning, hulling and other processing of fonio, the implementation of a recognised food safety management system is recommended, if not necessary, when supplying European buyers. You may find one of the following certification schemes useful, depending on the role you play in the supply chain (production, distribution or processing):

- [GLOBALG.A.P.](#) (agricultural production);
- [Food Safety System Certification 22000](#) (FSSC 22000 /ISO 22000);
- [BRCGS for Food Safety](#) (British Retail Consortium);
- [IFS Food Standard](#) (International Featured Standard).

### Tips:

Check with your buyer to determine which certification scheme is most relevant for your target market.

Read the [CBI tips for Organising your export](#) and [CBI buyer requirements for grains, pulses and oilseeds](#) to get more detailed insights on the advantages of certifications.

## What are the requirements for niche markets?

### Organic certification

An organic label is a common requirement for healthy grains. Being a smallholder crop in a dry climate, fonio is practically cultivated organically. This makes it relatively easy to make the conversion to a certified crop and supply the organic niche market.

In order to market organic products in Europe, you have to use organic production methods according to [European legislation](#) and apply for an organic certificate with an accredited certifier.

### Tip:

Consider organic if your situation and location permits it. Remember that implementing organic

production and becoming certified can be expensive. You must be prepared to comply with the whole organic process to market organic products. Read more about organic certification in the CBI study on [buyer requirements for grains and pulses in Europe](#).

## Gluten-free label

Gluten-free is a niche market, but also one of the strongest selling points of fonio. To supply European buyers with gluten-free ingredients or when marketing fonio as a gluten-free product, you must make sure you have no cross-contamination from crops that contain gluten such as wheat, rye, barley, spelt or even oats.

According to the [Regulation \(EU\) No 828/2014](#) the statement 'gluten-free' may only be made where the food as sold to the final consumer contains no more than 20 mg/kg of gluten. Food operators are legally obliged to provide correct information to consumers on the absence or reduced presence of gluten in food.

## Sustainability and social compliance

European buyers are paying increasing attention to corporate social responsibility (CSR), meaning the social and environmental impact of their business. As an exporter, you are part of the supply chain and share this responsibility.

The current fonio buyers are often socially engaged with West Africa. They want to highlight the social impact for farmers and communities that fonio has as a typical smallholder crop.

As fonio grows as an ingredient in Europe, you can expect social standards to become more formal. Buyers will often have you fill in a set of documents and declarations before doing business or ask you to comply with a code of conduct. Applying standards and certifications will help you meet the expectations of buyers. Initiatives or certification schemes that can help improve your CSR performance, are:

- The Business Social Compliance Initiative ([amfori BSCI](#)), implementing the [amfori BSCI code of conduct](#);
- The Ethical Trading Initiative ([ETI](#));
- Sedex Members Ethical Trade Audit ([SMETA](#))
- [GlobalG.A.P.](#) and [GlobalG.A.P. Grasp](#)

A consumer label for fair trade practices, such as [Fairtrade International](#) and [Rainforest Alliance](#), can be a niche requirement for specific buyers.

### Tips:

Use the [ITC Standards Map](#) to learn about the different sustainable and social standards and see which ones are available for your country.

Check your company's current performance and implement the [amfori BSCI code of conduct](#). You can also find many practical tools in the [amfori BSCI resources](#).

Read about the different social programmes and initiatives in the study on [buyer requirements for grains and pulses in Europe](#).

## 2. Through what channels can you get fonio on the European market?

### How is the end-market segmented?

Fonio is still a new product on the European market and not all segments are developed yet. The grain is ideal in bakery products, pasta, porridge or as a replacement for rice, couscous or quinoa (see image 1). In all these segments, the gluten-free and nutritious value will be most important in marketing fonio products. The bakery segment will likely grow into the principal segment.

Table 1: Uses of fonio in different segments

Bakery & pasta segment	Breakfast cereal	Meal replacement
Fonio flour	Fonio flakes, pre-cooked, puffed	Fonio grains
Gluten-free alternative for making bread, pancakes or for durum wheat in pasta	Porridge, alternative for oatmeal	Replacement for rice, couscous or quinoa

### Bakery & pasta segment

The bakery industry is a principle sector for cereal grains and flour. Small and industrial bakeries each cover around 30% of the cereal flour use (mostly wheat flour), with industrial bakers winning terrain over the small ones. New ingredients can help small bakers to differentiate themselves, but fonio probably needs the promotional strength of industrial bakers and supermarkets. Supermarket bakeries currently use 12% of the cereal flour (see figure 1). [Germany is at the top in Europe’s bread market](#), with opportunities in healthy bread substitutes, packaged bakery and other new product launches.

Other potential uses for fonio include pasta making, a market that is highly concentrated according to [Euromonitor International](#): In Western Europe, top 10 companies account for almost 40% of the market for pasta. Another 35% consists of private label brands. However, the region offers potential in premium pastas, including special ingredients such as fonio. Italy is the world’s largest producer of pasta. The [Italian Association of Confectionery and Pasta Industries \(AIDEPI\)](#) has 27 members in the pasta sector. The company [Obá Food Group](#) was the first to develop pasta with 40% fonio flour.

### Replacement for rice, couscous, quinoa

Fonio can be cooked in the same way as rice, couscous or quinoa, so consumer packed fonio can likely be found next to other grains for cooking. The willingness to replace rice and other cooking grains with fonio will be highest with African or ethnic consumers that already know the product. This means that this segment could initially be well developed in countries with a big African population such as France, which is also the [undisputed leader in consumption, production and import of couscous](#).

Image 1: A dish made out of Fonio (Acha)



Source: Wikipedia Commons / Fatima Bukar

## Breakfast cereal

Fonio can be used to make porridge and can be a healthy addition to the existing breakfast cereals. According to [Ceereal, the European Breakfast Cereal Association](#), the breakfast cereal sector includes 75 companies and represents an industrial value of 6 billion euros.

## Gluten-free

Fonio presents a number of possibilities for health-conscious and gluten-free market segments. [Reports and Data values the global gluten-free products market at USD 4.35 billion in 2018](#) and expects it to reach USD 7.91 billion by the year 2026. Globally, 68.5% of gluten-free products were sold by conventional stores in 2018, mainly because of their convenience. But in Europe, you will also see a large number of health stores, organic grocery shops and web-shops that offer healthy and gluten-free products, and more and more restaurants making serious effort to offer gluten-free options as well.

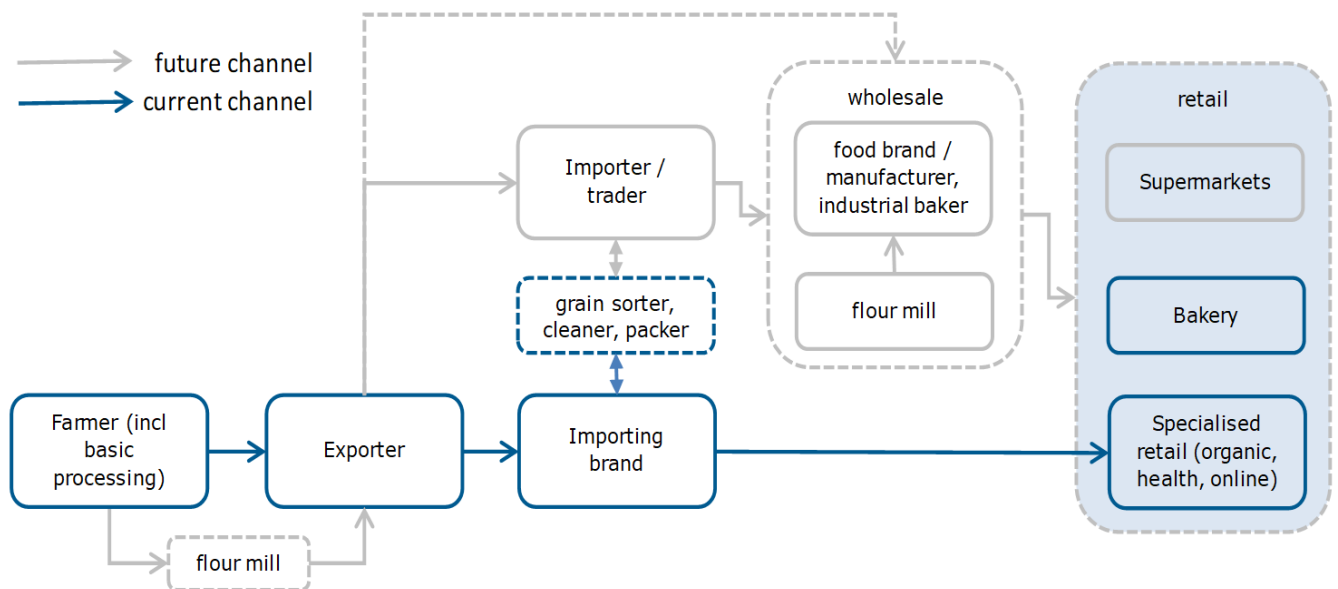
With 44.1%, the bakery sector has the largest share of the global gluten-free market. In Europe, the demand is highest for gluten-free bread, for example in Italy, Spain, France, Poland and Germany. Pasta manufacturers in Italy are responsible for selling the second most demanded gluten-free product. According to Euromonitor International, gluten-free pasta (currently around 2% market share) [is the fastest growing niche in the pasta market](#) in Western Europe, higher than organic and high fibre pasta.

### Tip:

Browse through the [Euromonitor International presentation about the gluten-free market](#) to get an idea about the gluten-free market in Europe and its segments.

## Through what channels does a product end up on the end-market?

Figure 2: Current and potential market channels for fonio



## Current channels are integrated brands and pioneers

Currently, there are only a handful of companies that are working with fonio. These pioneers have more or less integrated their supply chain and are selling their brand directly to specialised stores and users (see figure 2). Cleaning and packing can be easily outsourced. Their goal is to increase market awareness and build the first supply chains with African farmers and exporters.

Among the few companies that work with fonio are:

- the Italian company [Obà food group](#), which got fonio authorised as a food product in Europe;
- the French company [Gaia](#), which sells directly to organic shops such as [Biocoop](#) and [Naturalia](#);
- [Aduna](#), a British brand focused on West-African food products;
- [Millets Place](#), a small Dutch trading company specialised in teff and fonio;
- [Ibemi Food](#), a fonio company with promoters in the United Kingdom, France and Sweden.

## Specialised import channels

In the short term, you can expect to see the most trade potential with importers that are specialised in niche cereals, health ingredients and gluten-free grains. Companies like [Ecoterra](#) and [Tradin Organic](#), which already deal with typical ancient grains, such as quinoa and amaranth, are most likely to include fonio in their product assortment. They can fulfil a role in further organising the sourcing of fonio. This will facilitate food developers, diversify the wholesale channel and eventually get fonio on the shelves of the conventional supermarkets.

## Food developers and brands are the future channel for fonio

For fonio grains to become a larger commodity, it will need to be widely accepted by the cereal grain industry and food brands.

In the bakery sector, there are plenty of possibilities due to the large number of players. The [European Flour Millers' association](#) counts over 3,800 flour mills in Europe, most of which are small and medium-sized companies. According to the [International Association of Plant Bakers \(AIBI\)](#), there are over 1,000 industrial bakeries and over 90,000 craft bakeries in Europe. The [craft association of the national Bakery and Confectionery Associations \(CEBP\)](#) represents more than 190,000 small and medium-sized enterprises in Europe.

Once large food developers and brands gain interest in fonio, it will become a volume market. There are several



multinational companies such as [Unilever](#) (food developer) and [Ebro Foods](#) (rice/grain packer) that are significant users of grains and actively involved in developing innovative products. But for fonio, most opportunities will be with brand companies that are specifically interested in healthy and gluten-free grains, such as:

- [Dr. Schär](#) (Italy), specialised in gluten-free grain products
- [Hero Group](#) (Switzerland), with healthy snacks and gluten-free brands
- [Genius Foods](#) (UK), gluten-free bakery products
- [Warburtons Gluten Free](#) (UK), a gluten-free bakery
- [Royal Wessanen](#) (Netherlands) health food including gluten-free
- [Harry Brot GmbH](#) (Germany), large bakery including gluten-free bread
- [Ekibio](#) (France), responsible for healthy and gluten-free brands such as “Ma vie sans gluten” and “Priméal”

### Tip:

Make sure you have a well-organised supply chain with reliable farmers and good primary processing facilities for cleaning and hulling the fonio grains. This is the basis to raise interest with potential importers of fonio.

## What is the most interesting channel for you?

To export fonio grains to Europe you must find a specialised importer or innovative food brand that is willing to invest in developing the market for fonio. In the current market there are not many, besides companies such as the [Obà food group](#). You can wait until these companies pave the way for fonio in Europe or try to find your own import partner.

To raise interest among importers that have experience with special grains, your supply must already be well organised and there must be a basic demand from food brands or consumer groups. Among the companies that are known to import several special grains are, for example:

- [Danatura Food](#) (Germany) importer of quinoa, teff, amaranth
- [Ecoterra](#) (Germany) importer of quinoa, amaranth, cañihua, breakfast cereals
- [Tradin Organic](#) (Netherlands) importer of organic ingredients, including teff, quinoa, buckwheat, bulgur
- [Doens Food](#) (Netherlands) importer of couscous, bulgur, amaranth, millet, among other grains
- [P. van Schelven](#) (Netherlands), a grain trader with cleaning and sorting facilities

When processing technology in the origin country is not yet up to European standards, it is best to find an importer with their own cleaning facilities. Well-organised and fully certified exporters that can guarantee a reliable supply and quality product can target a wider range of importers of ingredients. In some cases, a food manufacturer or brand will organise its own import, but for sourcing a typical smallholder and niche product such as fonio, most will prefer to have an importer in between.

### Tip:

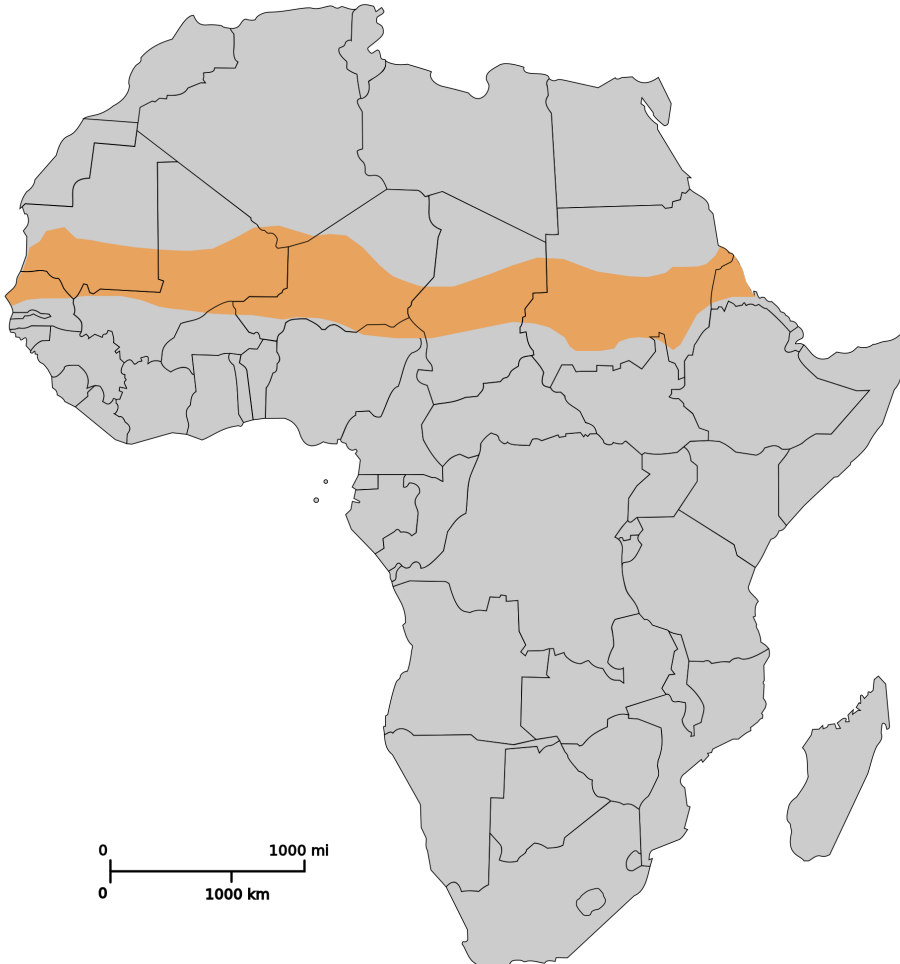
Meet with importers of special ingredients and gluten-free grains at large food trade fairs such as [SIAL](#), [Anuga](#), [Biofach](#), [Food Ingredients Europe](#) or smaller, specific events such as the [Free From Functional & Health Ingredients Exhibition](#) or [iba](#), a leading trade fair for baking and confectionery.



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

The western part of the Sahel region is the main production region of fonio (see image 2), but export volumes are still very small. The development of the fonio trade depends heavily on the work of foreign investment, knowledge transfer and NGOs - such as the [projects coordinated by CIRAD](#) to improve post-harvest technologies and upgrading quality and competitiveness in Guinea, Mali, Burkina Faso and Senegal.

Image 2: Sahel region



Source: Wikipedia, see also the [fonio production region in “Aire de production du fonio en Afrique de l’Ouest”](#)

#### Which countries are you competing with?

##### Guinea: most potential in volume

In Guinea, fonio is typically produced on the Fouta Djallon plateau. According to Faostat, Guinea is the world's largest producer of fonio grains, with a volume of 514 thousand tonnes in 2017. This production has been gradually increasing and is 14% higher than five years earlier in 2013. It is also one of the largest exporters of fonio to Europe, with 265 tonnes in the period from 2012 to 2018.

With significant production close to the sea-access. Guinea holds the best position to become one of the biggest competitors in fonio from West Africa.

##### Mali: largest current exporter

Mali is the main exporter of fonio to Europe. The grains have to travel a large distance to reach the ports of Ivory Coast or Senegal, but despite not having direct access to a national seaport, the country managed to

export 312 tonnes to Europe between 2012 and 2018.

The production of fonio in Mali fluctuates, but the production capacity and current volume should be sufficient to grow as a competitor. In 2017, Mali produced 34 thousand tonnes of fonio.

### **Burkina Faso: producing exporter**

Burkina Faso is the third largest supplier of fonio to Europe. Just like Mali, the country has no national seaport, but with an annual fonio production of over 10 thousand tonnes, the country can play a future role in the fonio trade with Europe. One of the current trade examples is with the French company [Gaia](#), which has set up their supply from Burkina Faso with the support of the NGO “L’Orange Bleue Afrique”.

### **Senegal: developing as a competitive export hub**

Senegal only has minor production of fonio, but as an export country it can be very competitive, because of its advantageous logistical location and direct shipping route from Dakar to Europe. It was also supported by various development projects and private investments.

Farmers in Casamance in Senegal received support from the Belgian NGO [Rikolto](#) to purchase agricultural tools and to strengthen their position in the fonio value chain. For foreign companies such as [Terra Ingredients](#) and [Yolélé](#), Senegal and its port in Dakar provide a good basis to collect and process fonio grains before shipping.

These developments will give Senegal a competitive advantage and a good position to collect fonio grain from the West African region for export to Europe.

### **Nigeria: main producer with largest local market**

Nigeria is the second largest fonio producer in Africa, where fonio is locally known as “acha”. But the production of 83 thousand tonnes (2017) falls short when considering it is a staple crop and Nigeria has a population of 200 million inhabitants.

Nigeria has the potential to compete in the fonio trade, but this will be unlikely when farmers can rely on their internal market.

### **Ivory Coast: logistical hub for nearby producers**

Ivory Coast is currently among the main exporters of fonio to Europe, although with 18 tonnes in seven years (2012-2018), this export can barely fill a container. There is no record of significant fonio production, and the country will likely function as a logistical hub for nearby production. With the largest container port of West Africa in Abidjan, Ivory Coast can be an interesting place to settle for exporters.

#### **Tip:**

Look for the best logistical route for your supply. Think carefully about the location for collecting and processing the grains and choose the best port for export. If your company is further away from production sites or logistical hubs, you will have to compensate in another way such as product price to be competitive with better located exporters.

### **Which companies are you competing with?**

The export channels for fonio are still underdeveloped. The current export is realised by only a few companies

that are often socially engaged with West Africa and linked to businesses in Europe and the United States. Your strongest competitors are those companies that are able to build relations with local farmers and facilitate the processing of fonio.

## Vivrière

[La Vivrière](#) is a local company in Senegal that takes locally produced fonio, millet, maize and black-eyed peas from local farmers, and turns them into healthy cereals. With the [support of Root Capital](#) and the independent non-profit Partners in Food Solutions, the company built connections with experts from General Mills, Hershey's, Cargill, and other multinational food companies to improve the production capacity of its facility.

The company lacks the marketing and modern website that you see among companies in other, more familiar supergrains. Nevertheless, they succeeded in getting some of their products onto the European market and they sell [pre-cooked fonio to the company Unidex Holland](#).

## Yolélé

[Yolélé](#) (based in New York) is a strong promoter of fonio grains. Its founder is native to West Africa and advocates fonio as the new superfood.

The company has grown a network of farmers with the help of [SOS Sahel](#) and is building the world's first commercial-scale fonio mill in the greater Dakar area, which is to be opened by mid-2020. With this mill, it will become easy to supply European buyers as well.

[Yolélé](#) is not the only American company to build a fonio processing plant in Senegal. [Terra Ingredients](#), an AgMotion company, has done the same, committing itself to processing the grain from local farmers and potentially exporting thousands of tonnes to the world.

## Gaia

Specialised in sprouted grains and raw food with attention for fair business, the French company [Gaia](#) has set up their supply of fonio from Burkina Faso with the support of the NGO "L'Orange Bleue Afrique".

It is an advantage, but also necessary, to have people on the ground in the origin country as well as in the end market. Through cooperation, supply chains can be organised and a traditional grain such as fonio can reach niche channels in Europe.

The products that Gaia brings to the market are organic and certified as gluten-free by the [French Association of Gluten Intolerants \(AFDIAG\)](#).

### Tips:

Find an efficient and high-quality processing facility of fonio grains. The companies that control the basic processing of fonio and that are able to deliver reliable volumes will dominate the export market. When setting up your own processing, look for help from NGOs or social investors such as [Root Capital](#), [Triodos](#) or [Oikocredit](#) to set up and finance your production facility.

Present yourself to European buyers by creating a good website and visiting trade fairs to show your business. See also the [CBI tips on finding buyers](#) and [CBI tips to do business with European buyers of grains, pulses and oilseeds](#).

## Which products are you competing with?

Food news sites such as [Food Navigator](#) often compare fonio with other nutritious grains or pseudo-grains, especially with quinoa. Just like quinoa, fonio is known as an ancient grain that has been rediscovered in Europe as a healthy, gluten-free grain.

Both grains can be used as an alternative for rice or couscous, which are often cheaper, but less nutritious. Fonio is higher in protein content, fibre and iron. [Baking Business](#) argues that [fonio contains three times the amount of fibre and four times the amount of protein of brown rice](#). But as a crop, it also offers a sustainable opportunity for farmers, as it tolerates drought and poor soils without the need for pesticides. Fonio grains can be harvested multiple times a year.

The difference is that quinoa has already been promoted on the European market and consumers today are quite familiar with it. Fonio still lacks that development. But in the long term, fonio could potentially become a strong competitor with the advantage of a lower price compared to quinoa.

### Tips:

Highlight the nutritional benefits of fonio on your website and other presentation tools as well as the positive impact on your community and environment. The better your story, the more appealing your product will be.

Make it easy for food brands and consumers to understand the possibilities of fonio. Find strategic partners such as food brands that are able to promote fonio and the different uses. Look for brands in European stores and webshops that have already included other nutritional grains in their products, such as quinoa, amaranth or teff.

## 4. What are the prices for fonio on the European market?

A survey of CIRAD in 2007 shows that the price for fonio depends mostly on the level of processing. Table 2 summarises the retrieved local retail market prices for fonio in Mali. The lowest recorded price was 365 euros per tonne for decorticated fonio and the highest was 1540 euros per tonne for pre-cooked fonio.

Table 2: Local retail prices of fonio in Mali, in euros/tonne

	low	average	high
Decorticated fonio	385	560	730
Whitened fonio	385	640	1000
Whitened and washed	690	880	1000
Pre-cooked fonio	1080	1320	1540

According to trade data of the last five years (2014-2018), the average value of fonio has been between 710 and 840 euros per tonne. However, this is just an indication of the export price.

It is important to add that prices for relatively new ingredients in Europe are subject to strong fluctuations. When fonio is promoted as a new superfood, there may not be enough suitable suppliers for the European market, which can temporarily boost the prices upward. This is what happened to several other new ingredients in the past, such as quinoa and chia. If this will happen for fonio as well is still speculation.


Despite several companies that cover the value chain from sourcing to retail, the retail prices in Europe are still quite high. On the low end, fonio is sold for 8 euros per kilo (including VAT), and higher prices go up to 19 euros per kilo. The high prices and price differences can be explained due to the fact that fonio is still a niche product and lacks the large volume infrastructure. This can change over time, although retailers will always maintain a safe margin and keep the consumer price stable.


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

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