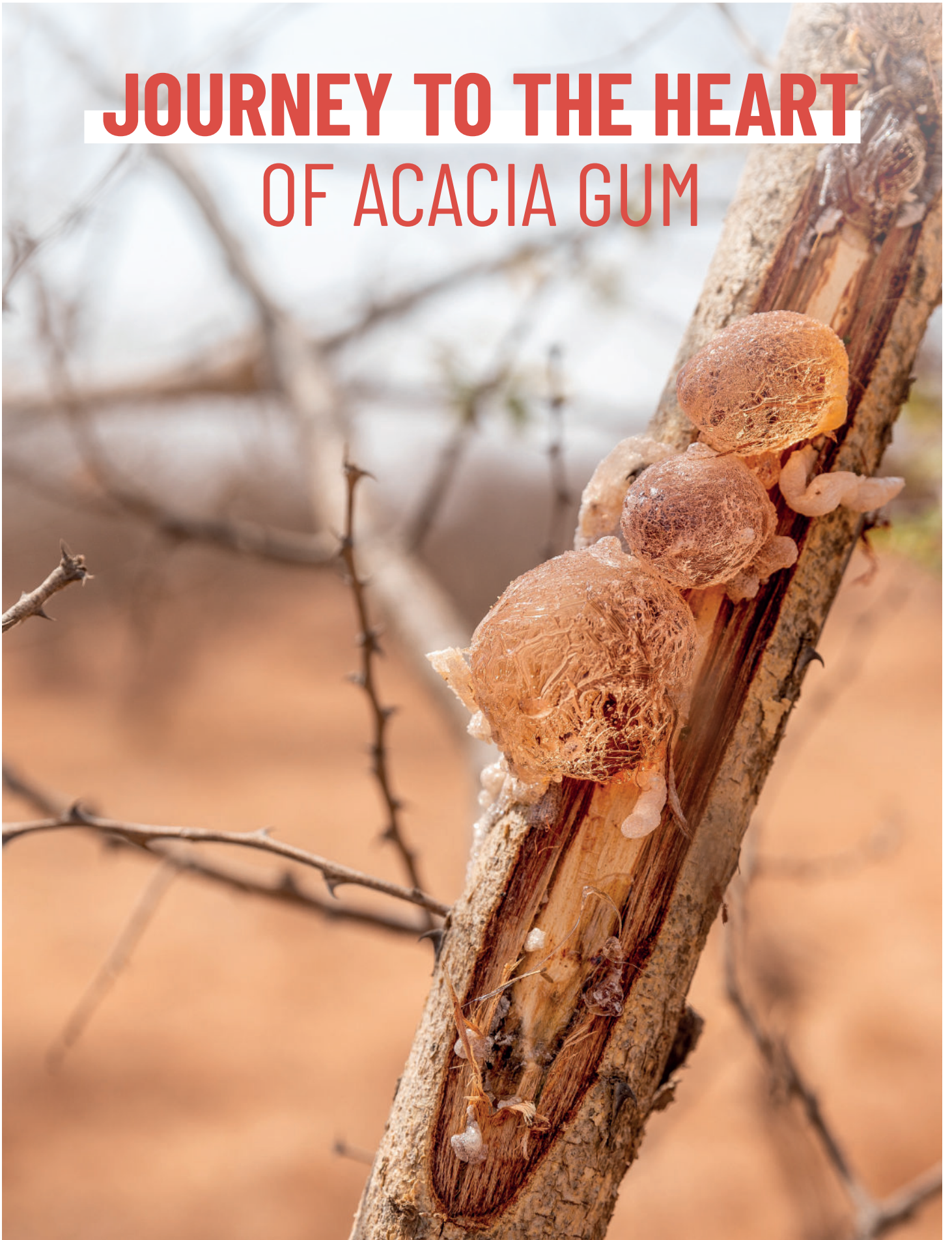


Press kit

JOURNEY TO THE HEART OF ACACIA GUM



ALLAND & ROBERT

SUMMARY



All about acacia gum



Alland & Robert, a family story !



The journey of acacia gum, from the tree to the factory



The journey of acacia gum, from the factory to the client



Industrial excellence



The R&D explores all the possibilities of acacia gum



Alland & Robert supports food industry R&D processes



A product that's always been in fashion



Gum acacia helps boost food product nutri-scores



"Our model has always been nature-oriented"

INTRODUCTION

CHARLES ALLAND, CEO ALLAND & ROBERT



"Making the benefits of gum acacia available to all, while also developing the local supply chain: these are the goals that guide us at Alland & Robert"

After taking the reins from my father in 2023, I now represent the sixth generation to lead our family company, founded in 1884. The challenges we face are as plentiful as they are invigorating – while the global gum acacia market is enjoying constant growth, we must continue to innovate. We must do better, do things differently, and do more.

Doing better means, first and foremost, reducing our carbon footprint, because I strongly believe that the future of Alland & Robert hinges on our efforts to make ourselves more ecologically virtuous. Doing things differently means adapting to a changing world, and working to combat climate change. The climate strategy we have committed to is an ambitious one, and targets two primary objectives: adhering to the 2015 Paris Agreement targets, and embodying our long-term vision: "offering natural, plant-based and low-carbon solutions for healthier and more sustainable food production."

Finally, doing more means ensuring that our harvesters, without whom none of this would be possible, see more of the economic gains generated by gum acacia. We recently obtained the first Fair Trade certification for our sector – as with the organic label, which has now become standard, we hope this achievement is only the start. Our role also involves helping to improve our harvesters' quality of life, taking into consideration their access to water, energy, healthcare and education.

We will not be able to achieve this on our own, and we will continue to work with other stakeholders in our commodity chain – suppliers, NGOs, international organisations, and local authorities.

Our desire to do better, do things differently and do more also implies ramping up our investments. In order to help industrial operators in all sectors to dispense with synthetic products in their formulas and recipes, we will continue to emphasise research. As a natural product, gum acacia is establishing its position as an essential, standard ingredient. It is plant-based, is not chemically transformed, can be certified organic, and its origins are fully traceable.

We still have plenty to do, and to explore!

Charles Alland, CEO of Alland & Robert

ALL ABOUT ACACIA GUM

Its name vaguely refers to confectionery but who really knows what is the true nature of acacia gum? 100% vegetable, natural and environmentally friendly, acacia gum has become a very popular raw material. From food to cosmetics, manufacturers now use it in many of their formulas. Portrait.



2 varieties of acacias

Acacia gum used by the food industry only comes from 2 varieties of acacia: Acacia Senegal and Acacia Seyal.

WHERE DOES ACACIA GUM COME FROM?

Acacia gum is harvested from Senegal to Eritrea, in an area called «the gum belt». Alland & Robert works mainly with producers from Senegal, Chad, Sudan and Mali.

Acacias are particularly adapted to the dry and semi-arid climate of this sub-Saharan region. They even prevent its desertification, nourish and fertilize soils, and stabilize precipitation cycles.



70 000 years

Historians have found evidence of the use of acacia gum for over 70,000 years in the South and North East Africa, as an adhesive and in food.

WHAT IS ACACIA GUM?

Acacia gum is an exudate of the acacia tree. It's neither sap nor resin.

It is either naturally exudated by the tree or following an incision done in the branches of the tree by harvesters. From a chemical point of view, acacia gum is a complex polysaccharide*.

* Carbohydrate made up of a large number of monosaccharides, simple sugars made up of a single chain of carbon atoms. ex: glucose, fructose, etc

HOW IS IT HARVESTED?

The acacia gum harvest takes place from January to April, and the process is totally natural. The first stage is called tapping and consists of an incision on the trunk and branches by the harvester.

It does not damage the tree and will start a complex mechanism of gum exudation to cover the incision. The gum dries in contact with air and gradually forms a nodule. A few weeks later the harvesters come to cut and pick up the nodules. The nodules are then dried, sorted and stored, before being sent at the Alland & Robert factories.

A surprising versatility!

Acacia gum: multifunctional by nature!

From cosmetics to confectionery, to carbonated drinks or pharmaceutical products, acacia gum is used in a multitude of everyday products. It can be present as a texture agent, emulsifier, stabilizer, or for its high fiber content. 100% plant based, it also constitutes an alternative of choice for vegetarian and vegan food products.

FOOD



CONFECTIONERY (CHEWING GUMS, CANDIES, COATINGS, ETC.) Texturing and gelling agent, sugar free coating



CARBONATED DRINKS
Emulsifier, sugar reduction aid



WINE
Protection of color, stabilization, mouthfeel improvement



NOODLES, RUSKS, SNACKS, FEED (EXTRUDED PRODUCTS)

Processing aid for extrusion**, a manufacturing process specific to these products



SNACKING ET BAKED PRODUCTS

Increase of preservation, fixation of color... sugar reduction aid



ICE CREAMS AND FRESH FOOD

Stabilize, improve texture and increase the natural fibers count,



DIETARY AND SPORT PRODUCTS

Increase of the natural fibers count, improvement digestive wellness, encapsulation of powdered drinks sugar reduction aid



FLAVOURS AND PERFUMES

Encapsulation, emulsification



FIBER ENRICHMENT

Increase of the natural fibers count in any product formulation

PHARMACEUTICAL



CAPSULES, TABLETS, PILLS, CREAMS, LOTIONS, SYRUPS, DENTAL ADHESIVES, ETC.

Texturing, coating agent, emulsifier, increase of the natural fibers count

COSMETIC



MASCARA, EYE-LINER, CREAMS, HAIR CARE

Texture, stabilizing and protective agent, emulsifier

TECHNICAL



PRINTING INKS, papers, paintings and industrial application

Emulsifier, texturing and stabilizing agent, natural glue

** Process by which a set of mixed ingredients are forced through an opening in a perforated plate or die in order to give it a precise shape.

ZOOM ON

E414 : A 100% natural ingredient

Used in many food products, acacia gum can be labelled as : **E414, Arabic gum, Acacia gum or Acacia fiber.** "Additive" does not necessarily mean harmful! 100% natural, harvested manually, processed without chemicals, acacia gum is a healthy product. And it is recognized as a source of fiber and prebiotics. As for its harmlessness, the EFSA (European Food Safety Authority), the Food and Drug Administration (FDA) or JECFA (Joint FAO / WHO Expert Committee on Food Additives) all confirm the consumption of arabic gum is safe and healthy, whatever its use!

ALLAND & ROBERT, A FAMILY STORY !

Founded in 1884, Alland & Robert is still nowadays a family company, 100% French and based in Normandy. Our success is based on a strong commitment to a sustainable development and passion for natural ingredients. Look back at history.

THE ALLAND FAMILY, HEAD OF ALLAND & ROBERT FOR SIX GENERATIONS

The story of Alland & Robert starts in 1884, when chemist Francisque Alland and Alfred Robert partner to create a company. Their goal:

sell acacia gum, which was mostly used in textile at the time. Over 135 years have passed since then, and six generations of the Alland family have led the company. But the same values remain at the heart of the company : sustainable growth, respect, responsibility..



Alland & Robert's turnover has tripled over the last ten years. Our international development is increasing, thanks to our clients and consumers, and thanks to unmatched expertise on natural gums. We aim at promoting healthy and natural food through our expertise and our know-how. We will continue to invest in production, R&D and sustainability, in order to offer the highest quality of products.

Frédéric Alland , EX CEO d'Alland & Robert.

Frédéric Alland, EX CEO, and his son Charles, CEO.

WHAT WE CARE ABOUT EVERY DAY

AN EXPERT OF ACACIA GUM

Our R&D team

builds Research programs and partnerships with worldwide recognized universities, including the University of Montpellier (see page 15).

EXEMPLARITY

We manufacture high quality products

that are sustainable, environmentally and socially friendly. We support African harvest communities through local projects with our suppliers. Our corporate responsibility policy is a guide to us.

INTERNATIONAL CERTIFICATIONS

Our research center,

production sites and gums meet the highest quality standards, guaranteed by international certifications in the food industry and pharmaceutical (ISO 9001, BRC and ANSM, HACCP procedures and SMETA). And we have developed our own internal quality standards.

SAFETY OF SUPPLY

We have developed solid

partnerships with an extensive network of suppliers. In order to provide safety of supply and offer excellent traceability.

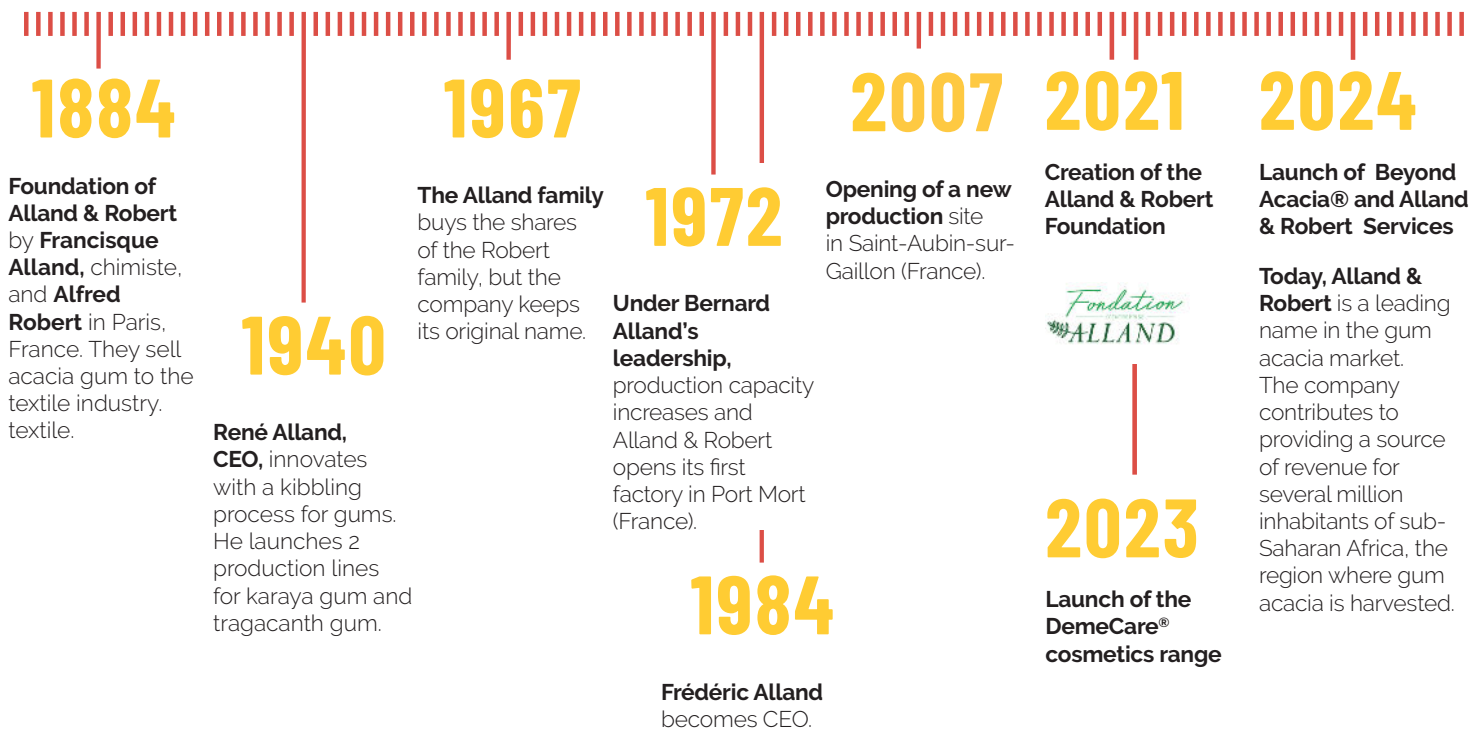
RESPONSABILITY AND COMMITMENT

Our employees are committed

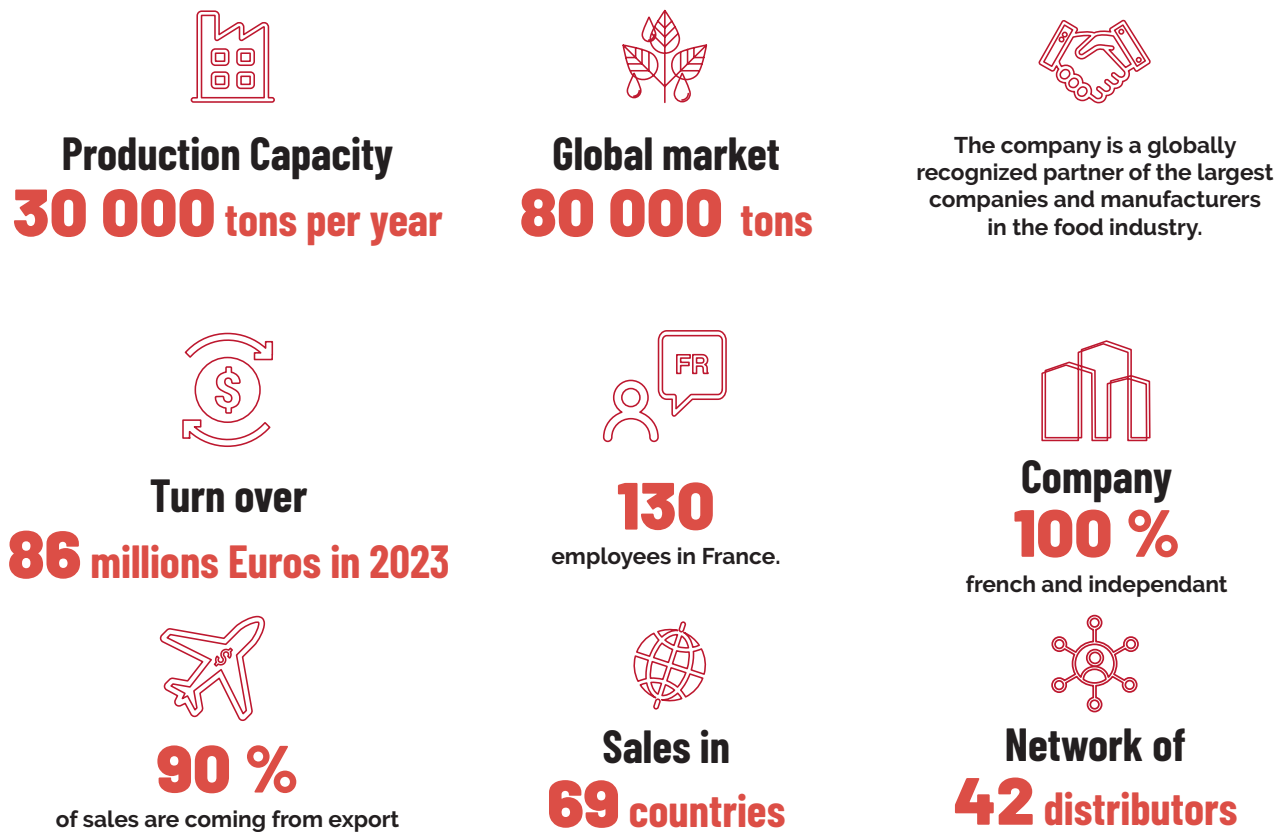
daily to excellence, value and passion. Our very low turnover rate (1,5 %) is an example of our team implication.

OUR STORY

FROM GROWTH TO SUSTAINABLE INNOVATION



A "FRENCH" SUCCESS STORY



THE JOURNEY OF ACACIA GUM,

FROM THE TREE TO THE FACTORY

Acacia gum is travelling before arriving in our food and beverages! From subsaharian Africa, where producers harvest it according to traditional practices, to Alland & Robert factories and Research Center equipped with cutting-edge technology, each step contributes to the product high quality and excellence. On its way, acacia gum provides income to millions of people in Africa, and will be used by consumers goods manufacturers all over the world. Itinerary of the journey of acacia gum.



Acacia gum harvesters make an incision of the stems or branches of the acacia tree, which will induce an exudation of gum. No machinery is used, it's all hand made.

1. TAPPING



FOCUS

Thanks to their extensive root system, acacias prevent the desertification of the Sahel. A carpet of grass naturally develops under each tree, which allows to fight against the soil degradation. It allows also to provide fodder for cattle and habitat for local wildlife.



FOCUS

The harvest of acacia gum takes place from December to April, which allows harvesters to spread out their income as other harvests usually take place in the fall.

As for the other stages of the gum production process, no chemicals or pesticides are used by producers: the cut the nodules formed by acacias with a blade and handpick them.



2. HARVEST



Harvesters sort and dry the nodules. This step is also handmade in order to maintain the quality and functional properties of the gum. Alland & Robert audits every year all suppliers in order to control the installations, and make sure the drying and storage conditions of the gum are optimum.



"A&R was created in 1884. We have been able to develop and maintain an important network of suppliers in Africa. This helped us become an unmatched expert of acacia gum: indeed, if the gum isn't harvested, dried or stored properly, it can lose its functional properties."

- Charles Alland, CEO Alland & Robert.

3. DRYING

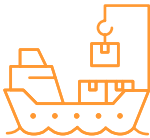
Find out about the rest of the journey of acacia gum on the next page



Acacia gum main producing countries are Sudan and Chad. Recently, Mali and Senegal have increased their production. And Senegal has one of the best acacia gum qualities.”

– Charles Alland, Deputy General Director Alland & Robert.

In 2019, 22 000 tons of acacia gum were imported by Alland & Robert. 97% of this gum was coming from Senegal, Sudan, Chad or Mali.



7. SHIPPING TO LE HAVRE, FRANCE



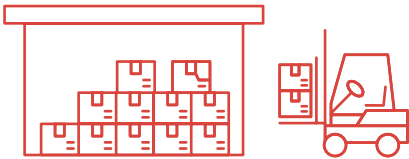
Before being shipped, the gum is cleaned according to our standards, especially to remove foreign bodies like branches or leaves. Then, it is loaded on ships in harbors like Port Sudan (Sudan) or Dakar (Senegal).

6. GUM CLEANING

FOCUS

Alland & Robert organizes traceability tests during audits to ensure a reliable system is in place in the African supply chain.

Acacia gum is stored and dried for several weeks, then shipped to our suppliers installations where it will be packed in big bags.



5. STORAGE, DRYING, SHIPPING



Acacia gum can be auctioned by harvesters on local markets, which allow them to receive a direct income. Some of our suppliers purchase acacia gum that way.



3 millions

Number of people in subsaharian African who receive income from acacia gum harvest.

4. SELLING ON LOCAL MARKETS

THE JOURNEY OF ACACIA GUM,

FROM THE FACTORY TO THE CLIENT

8. TRANSPORTATION TO R&D

and production sites at Alland & Robert

Acacia gum is unloaded in Le Havre and is delivered in one of our 2 production sites in Port-Mort or Saint-Aubin, Normandy.



We receive the nodules conditioned in Big Bags of 2 metric tons. We provided the necessary equipment to our suppliers and we invested in new storage and production areas in our factory. For example, all operations on our sites are now managed automatically, so no one has to carry bags in our factories, which greatly improves working conditions!"

- Olivier Schulla, Production Director



2 474 batches

were analyzed
in our laboratory in 2023



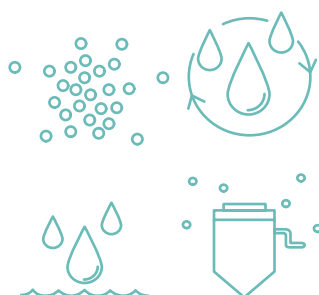
We perform quality controls when acacia gum is delivered in order to ensure conformity with our internal specifications and external regulations.

9. QUALITY CONTROL

We sort and label gum nodules according to their variety and origin. We integrate them into our database and based on their properties, we will use them optimally. We store them in our raw materials dedicated area.



10. GUM SORTING AND BATCH DEFINITION



In total, 4 towers have been erected across the company's 2 production sites: 1 at Port-Mort and 3 at Saint-Aubin, as the result of investments made in 2002, 2007, 2013 and 2024 respectively. Once these steps have been completed, the gum acacia appears in the form of soluble granules.



30 000 t

Yearly production capacity of acacia gum Alland & Robert

11. KIBBLING, SOLUBILIZING, SPRAY DRYING



At Alland & Robert, we all share the same values: transparency, attentiveness, proximity, flexibility and passion!

Charles Alland

90% of our turn over is coming from export. We sell acacia gum in 69 countries through our network of 42 distributors.



14. TORAGE AND SHIPPING

To our clients factories



Respecting the most recent legislations, exceeding our customers' requirements, meeting the highest quality standards... Those are the goals we reach every day to provide our clients and final consumers with safe, healthy and natural products."

- Myriam Brunel, Quality Manager Alland & Robert



Our teams from R&D, Quality and Safety validate the compliance of batches before their release, so they are made available for sale to our customers.

13. BATCH RELEASE



Every step of gum transformation is strictly controlled by our Quality department. Our objective: make sure our product complies with many specifications.

- **European regulations** on food additives
- **Pharmaceutical standards** (European, American, Japanese)
- **Food Chemicals Codex and JECFA** (Joint FAO/WHO Expert Committee on Food Additives)
- **Customers specific** requests



Our R&D team works to develop, test and improve our products to meet our customers' expectations. A team of 8 people is dedicated to innovation including one microbiology expert and one emulsion expert."

- Isabelle Jaouen, R&D Director

12. QUALITY CONTROL

INDUSTRIAL EXCELLENCE

Respond to the growing and constantly changing requirements of the markets, that is the goal of the Quality department of Alland & Robert. A complex challenge as acacia gum must comply to strict regulations, for industries as diverse as food, pharmaceutical or cosmetic. Details of a daily engagement.



3 questions to

Myriam BRUNEL
Quality Manager Alland & Robert

1

WHAT CHALLENGES DOES ACACIA GUM PRESENT IN TERMS OF QUALITY ?

Myriam BRUNEL_ Acacia gum poses several challenges, the first one being its very nature! It is 100% natural: it can therefore be subject to quality variations linked in particular to its harvest conditions. It is also collected in countries where regulations can be less demanding than others in the world. Those two elements are potential sources of uncertainty for our customers. Food and pharmaceutical companies are particularly careful since they have to respond to high and stable safety and quality standards. At Alland & Robert, we attach paramount importance to guarantee a constant quality of our acacia gum. This is essential for us, and for our customers! And this is my role as the head of the Quality department of Alland & Robert.

2

HOW DO YOU COLLABORATE WITH YOUR SUPPLIERS OF ACACIA GUM IN TERMS OF QUALITY PROCESS?

M.B_ We have 2 main objectives: First, we need to make sure that suppliers are able to meet our health, safety, environmental and social requirements. Second, they must volunteer to develop their methods if necessary. In order to achieve this, I personally visit our suppliers' facilities suppliers each year, and I conduct an audit as close as possible to their reality. Step by step, we help them improve their processes by offering them tools and methods so that they reach a level of quality consistent with our expectations. In addition, throughout the year and the production cycle in France, we continuously assess the quality of gum we receive, as well as its conditioning and its behavior during the production cycle, in our factory and customers'.

3

HOW DO YOU ADAPT TO SO MANY CUSTOMERS EXPECTATIONS IN SUCH VARIOUS INDUSTRIES?

M.B_ We have customers in many markets (food, cosmetic, pharmaceutical ...) who manufacture products all over the world. So we have to make sure that our products meet a wide diversity of regulations, both industrial and geographic. In addition, the expectations of our customers have considerably evolved over the last two decades, as a result of health or financial crises that took place in their industry or new consumer trends. Food security today remains at the heart of our challenges, but the requirements expressed by our customers include social responsibility as well. We are constantly interacting with our customers to put our processes in accordance with their requests. Our processes are also validated by a large number of certifications (see box). This industrial excellence is what makes Alland & Robert unique on the natural gums market!

Alland & Robert: certified quality standards

Our ranges of gum acacia carry various certifications, first among them the BRC Food Safety Standard (issue 9). These attest to the robustness of the quality processes used, and Alland & Robert's commitment to humanity and the planet. They address current societal and environmental challenges, and meet the expectations of our various markets.



UNITED NATIONS GLOBAL COMPACT

Alland & Robert is a member of the UN Global Compact, an initiative to support the sustainable transformation of companies. Its members make a commitment to align their practices and strategies with ten principles drawn from the United Nations' founding texts, in areas including human rights, labour rights, the environment and anti-corruption measures. The ambition of the Global Compact is to achieve the 17 Sustainable Development Goals (SDGs).



CARBON DISCLOSURE PROJECT (CDP)

Alland & Robert is a member of the Carbon Disclosure Project (CDP). This international non-profit oversees one of the biggest environmental databases in the world. It encourages investors, companies, nations and regions to measure their global impact on the environment so they can take tangible action, and work toward the goal of zero net CO2 emissions by 2050



FODMAP FRIENDLY PRODUCT

Fodmaps (Fermentable Oligosaccharides, Disaccharides, Monosaccharides and Polyols) are sugars that ferment rapidly in the gut, causing digestive issues in individuals who suffer from irritable bowel syndrome. As a FODMAP-friendly product, gum acacia is a suitable ingredient for use in diets that seek to avoid these sugars.



FAIR FOR LIFE

Obtained by Alland & Robert in 2023, the Fair for Life certification reflects the company's adherence to strict economic, social and environmental standards, as defined by the Ecocert group. This requires protections for harvesters, and also sets a minimum guaranteed price based on the cost of harvesting, and insists on fair and safe working conditions throughout the commodity chain, using a fair trade approach that aims to ensure autonomy for producers.



WE USE WILD PLEDGE

Alland & Robert is a signatory to the "We UseWild" Pledge, created by NGO TRAFFIC, which monitors trade in wild species (flora and fauna). It is the first company in the gum acacia sector to have signed this pledge.



COSMOS

Alland & Robert's Demecare® range is COSMOS-certified. This cosmetics certification guarantees the use of production and processing procedures that respect the environment and human health, the development of the concept of green chemistry, responsible use of natural resources, respect for biodiversity, the absence of petrochemical ingredients and GMOs, and recyclable packaging.

ecovadis ECOVADIS

Alland & Robert received a gold medal from the Ecovadis ratings platform, which ranked it among the top 5% of companies. The Ecovadis score is based on 21 criteria across 4 key topics: Environment, Social and Human Rights, Ethics and Sustainable Procurement.

THE R&D EXPLORES ALL THE POSSIBILITIES OF ACACIA GUM



Paced by customer requests and fundamental research projects carried out in partnership with the University of Montpellier, Alland & Robert's R&D department studies, observes, and analyzes the functionalities of acacia gum in a multitude of applications, current or future. Their objective: keep discovering the properties of this ingredient that never stops revealing its versatility and all its possibilities.



Inside the R&D

The objectives of R&D team are numerous: quality control for food safety, applied and fundamental research to strengthen our expertise, innovation and research of new applications or new usages, technical assistance to our customers and the creation of tailor-made products for them.





INTERVIEW

Isabelle Jaouen

Directrice R&D

"OUR OBJECTIVE: ANTICIPATING NEEDS AND DEVELOPING NEW WAYS OF USING GUM ACACIA"

Isabelle Jaouen is head of the Alland & Robert research team. Alongside her, four engineers and five senior technicians study the active properties of gum acacia. Their mission is to explore the universe of possibilities this ingredient holds, to showcase its potential and to find new applications.

AS THE FIELD OF APPLICATION FOR GUM ACACIA GROWS WIDER, R&D'S SCOPE OF ACTIVITY IS ALSO EXPANDING. WHAT ARE THE MAIN AREAS YOU'RE WORKING ON?

Isabelle Jaouen_ Our main projects right now are focused on Sugar reduction, Vegetarian and Vegan markets, Diet beverages, Gluten-free, Health foods and high-protein foods, etc. Indeed, given its high fibre content, its low glycaemic index, the fact that it's 100% plant-based, etc., our gum ticks a lot of boxes for both the food industry and consumers. It also enables us to develop more natural, Clean Label recipes which are less processed, limiting (or even eliminating) the use of food additives. Ethical issues are also becoming an area of rising concern, and gum acacia also provides a response for those who wish to limit the social, environmental and human health impact of their dietary choices.

HOW ARE YOU DIRECTING YOUR RESEARCH IN SEARCH OF NEW APPLICATIONS?

I.J._ We've been working hand-in-hand with the food industry for many years now. Thanks to this cooperation, we've been able to analyse and identify the properties of our product ranges with increasing precision. Today, our objective

is to anticipate needs and develop new ways of using gum acacia, so that our customers can integrate this ingredient into their innovations right from the early stages of development (cf. page 16). Gum acacia is a highly multi-functional ingredient, and our field of research is vast.

YOU ALSO CARRY OUT RESEARCH WORK WITH THE UNIVERSITY OF MONTPELLIER: WHAT DOES THIS PARTNERSHIP PROVIDE?

I.J._ One of our R&D goals is to ensure the long-term future of gum acacia use. The gum's properties mean that it can address a wide number of current trends. As such, we're performing experiments to substitute sugar with gum acacia in existing recipes. The gum is also increasingly used as a thickening agent in plant-based products, or to mask the aftertaste of certain ingredients, notably in plant-based desserts. We're also exploring ways to integrate the gum into savoury sauce recipes, and its cosmetic applications. Our efforts might shift direction based on our progress, or depending on customer requests – which remain the priority!



AT THE CUTTING EDGE OF RESEARCH WITH THE UNIVERSITY OF MONTPELLIER



Alland & Robert and the University of Montpellier have been cooperating on joint research projects involving acacia gum since 2012. At the head of the Agropolymer Engineering and Emerging Technologies Joint Research Unit, Christian Sanchez heads a team of some fifteen people dedicated to the biophysical and physicochemical analysis of biopolymers*.

"We bring our expertise to bear on acacia gum, its functioning, its constitution and its behavior in technological processes. Our scientific know-how and equipment enable us to conduct research programs at the cutting edge of current knowledge. And we can help Alland & Robert to meet some of their customers' specific requirements", he explains.

For Alland & Robert, "the University of Montpellier is the most competent in the world on acacia gum. Thanks to this partnership, we have access to data that we can then transfer to the industrial sector. A real asset for us and for our customers!" adds Isabelle Jaouen.

* Polymère produit par un micro-organisme



Part of the Alland & Robert R&D team

ALLAND & ROBERT SUPPORTS FOOD INDUSTRY R&D PROCESSES



With the Alland & Robert Services offering, the Alland & Robert R&D teams put their expertise and technical skills to work for operators in the food production, dietary products and cosmetics sectors, as they seek to integrate natural gums into their recipes and formulas.



Supporting manufacturer research and development across all sectors is instilled in the Alland & Robert business DNA. In order to formalise the unique support it provides, the leading name in gum acacia launched Alland & Robert Services in 2024: a customised consultancy service dedicated to manufacturers in the food production, dietary products and cosmetics sectors. In this context, the Alland & Robert R&D experts help companies to design, develop and industrialise products containing gum acacia, thereby enabling them to address modern-day consumer expectations.

The Alland & Robert Services offering is delivered in three phases:

1/ SUPPORTING INNOVATION

The methodology available via the **Alland & Robert Services** offering ranges from component analysis (in order to optimise the product formula) to experiments carried out using the company's cutting-edge equipment, as well as access to academic resources through its university partnerships. The offering also includes workshops and webinars with teams responsible for industrial innovation, aiming to encourage the emergence of creative ideas and in-depth understanding of their needs.

2/ SUPPORTING DEVELOPMENT

The support provided by **Alland & Robert Services** covers the commercial and marketing strategy, as well as industrial development: analysis of market trends, studies examining compatibility, synergies, and rheology (fluid mechanics), etc. The Alland & Robert network of agents, which operates all around the world, provides adapted solutions for new formulation projects. Finally, the Alland & Robert teams can also assist industrial operators with the regulatory and food safety aspects of a project.

3/ PRODUCTION LAUNCH

With the **Alland & Robert Services** range, the company supports manufacturers in the food production and cosmetics sectors in perfecting their product compositions, studying production feasibility, facilitating industrial development, ensuring comprehensive and optimised formula integration, and stability testing.

"WITH ALLAND & ROBERT SERVICES, WE WORK HAND IN HAND WITH FOOD INDUSTRY OPERATORS TO CREATE THE FOOD PRODUCTS OF THE FUTURE. FOR THE COSMETICS SECTOR, WE HELP MARKET OPERATORS TO PROMOTE THEIR PRODUCTS' SUSTAINABILITY AND NATURAL PROPERTIES, WHICH ARE AN INCREASINGLY PRESSING CONSUMER EXPECTATION."

Isabelle Jaouen, R&D Director





Syndeo® Gelling:
a vegan thickening agent made
from gum acacia and other gelling agents,
for the substitution of gelatin.

Consumers are increasingly looking for plant-based ingredients as a substitute for products of animal origin. Food industry operators must now find ways to address these powerful societal trends, in particular producers of confectionery products, jellied sweets, marshmallows and dietary supplements. With Syndeo® Gelling, Alland & Robert provides these producers with an innovative and multi-functional agent. Its composition combines 100% plant-based hydrocolloids including gum acacia, with their joint properties offering a compromise between gelatin and pectin. Being plant-based, its environmental impact is lower than that of animal-origin products. Its use does not alter the sensory properties of jellied sweets; it is odourless, colourless and flavour-neutral. A multi-purpose product, its formula is suitable for a vast range of confectionery applications.



Beyond Acacia®:
a range of innovative
and sustainable
gum acacia products



After two years of research, Alland & Robert launched Beyond Acacia® in 2024. This new range of gums produced using high-density granulometry is easy to use, and committed to reducing its carbon footprint. This high-performance product profile is made possible thanks to Beyond Acacia®'s innovative processing procedure. Beyond Acacia® is highly soluble, and offers a higher dispersion capacity. This helps improve efficiency for any industrial process that uses the range, as less time and energy will be required. Another benefit is that these granules dissolve completely without being heated, even at high levels of concentration.



51,1 % :

**Beyond Acacia® enables
direct and indirect
greenhouse gas emissions
to be reduced by 51.1%
(scopes 1 + 2¹).**



DemeCare®



**Demecare®: a range of gum acacia products
dedicated to the cosmetics market, carrying
ISO16128 and COSMOS certification**

The search for natural, sustainable options is a particularly pressing trend in the beauty and cosmetics markets. With its Demecare® range, made with gum acacia and gum sterculia, using patented mixtures, Alland & Robert is providing an alternative to synthetic products in this sector. Used in skincare, cleansing gels and makeup items, these two 100% natural plant-based hydrocolloids offer stability and texture thanks to their viscosity and thickening (or rheological) properties. They can also be used as emulsifiers in lotions or serums with specific textural requirements. Setting a particularly high standard, the ISO16128 and COSMOS certifications guarantee the premium quality of the gums used in the Demecare® range.

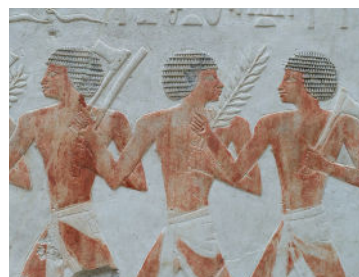
¹ Scopes 1, 2 and 3 of the Greenhouse Gas Protocol provide a means of categorising the various types of carbon emissions that a company creates during its own operations and throughout its wider value chain. Scope 1+2 include direct and indirect emissions.

A PRODUCT THAT'S ALWAYS BEEN IN FASHION

Whether used as glue to bandage the mummies of ancient Egypt, a prized ingredient for apothecaries during the Middle Ages, or for setting fabric dyes in the 19th century, gum acacia (or gum arabic) has passed down through many ages and civilisations. Today, various industries appreciate its multi-functional benefits. We look back on over a history dating back to the dawn of time.

FROM PREHISTORY TO THE EGYPTIANS, GUM ACACIA ALREADY HAD MANY USES

During the prehistoric era, early humans used gum acacia to glue their tools together. In the age of the Pharaohs, this sap exudate was used to keep mummy bandages in place. Gum acacia was also employed as a bonding agent in paintings found on pottery crafted by this civilisation.



LE SAVIEZ-VOUS ?

La légende raconte que le rouge à lèvres de Cléopâtre contenait de la gomme d'acacia.

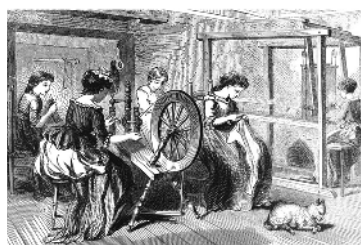


FROM ANTIQUITY TO THE MIDDLE AGES, GUM ACACIA WAS USED IN HEALING

As early as 1550 BCE, gum acacia was used in medical treatments. Up until the Middle Ages, it was used to treat coughs and toothaches, to staunch bleeding or soothe inflammation, and even as a contraceptive.

HIGHLY COVETED DURING THE RENAISSANCE

In the 15th century, the first great maritime expeditions brought about an era of global trade. Trade in acacia gum whet the appetites of European powers, who were eager to seize a monopoly in this flourishing commodity. People even spoke of "gum wars"...



GUM ACACIA CONTRIBUTES TO THE INDUSTRIAL REVOLUTION DURING THE 19TH CENTURY

Textile producers have long understood that gum acacia could be used to set colours and dyes in their fabrics. At the time of the industrial revolution, the textile industry was booming and gum acacia was highly sought after. Certain historians posit that the fashion industry was what made this product so valuable and essential during the 19th century.

MODERN DAY: A CONSTANTLY EXPANDING RANGE OF USES

Gum acacia is an ingredient in many of the products we use every day. While some of these uses are descendants of ancestral practices, others are more recent – such as products enhanced with prebiotic fibres. All of these demonstrate the limitless potential uses of gum acacia.



GUM ACACIA: AN ALLY FOR GUT HEALTH

Bloating, stomach aches, slow or fast gut transit times...these kinds of digestive ailments are a common source of everyday discomfort for many people. The good news is that gum acacia can help reduce their effects.



Low in Fodmaps (families of sugars that ferment in the intestines – cf. page 13) and high in fibre, gum acacia is particularly well-suited to treating sensitive gut issues. Rich in pre-biotic fibre, it improves gut transit and helps regulate blood sugar levels.

The gum's prebiotic effect helps boost the presence of good bacteria in the gut, and their beneficial impact on human health.

“GUM ACACIA'S PREBIOTIC EFFECTS HAVE ALREADY BEEN DESCRIBED IN THE LITERATURE; IT'S A NATURAL, PLANT-BASED FIBRE THAT FEEDS OUR MICROBIOME IN A HEALTHY WAY.”

Isabelle Jaouen, R&D Director



RECENT RESEARCH HAS SHOWN THE EXTENT TO WHICH OUR MICROBIOME IMPACTS INDIVIDUAL HEALTH

Our intestinal microbiome plays a fundamental role in digestion, but this is not its only function.

It also protects us from pathogens, and further research suggests that it plays a role in growth, satiety, pain levels, sensitivity to stress, and controlling inflammation. Recent studies have also shown that chronic microbiome imbalance can be associated with certain pathologies: chronic inflammatory bowel issues, and even neurological and neuropsychiatric complaints.



ONE ALLAND & ROBERT STUDY DEMONSTRATES THAT GUM ACACIA IMPROVES GUT HEALTH

Alland & Robert carried out a study along with Merieux NutriSciences, an institute specialising in clinical studies and analysis of consumer needs for the development of innovative products. For the trial, 240 volunteers split into three groups received three varying daily doses of acacia gum. All the participants stated they had suffered from regular gut issues over the course of the month leading up to the study, including stomach aches, bloating, and slow or fast gut transit. After 30 and then 60 days, over 8/10 of the individuals who had consumed at least 10 grams of gum acacia every day for two months confirmed that their gut health had improved. 70% of participants confirmed that consuming acacia gum improved their quality of life, and 75% of participants reported a reduction in bloating after 60 days.

GUM ACACIA HELPS IMPROVE FOOD PRODUCT NUTRI-SCORES

Created in 2018, the Nutri-score label is not an obligatory requirement. However, in many countries this labelling system has become a go-to point of reference for consumers seeking a more balanced diet. This has encouraged manufacturers to improve their recipes. By reducing the amounts of sugar and fat, and increasing the amount of fibre, gum acacia helps improve the nutri-score of various food items.

The 4 benefits of gum acacia for improving food nutri-scores

Less fat: Gum acacia can be used as a fat substitute in certain food applications such as vinaigrettes, sauces and baked goods. This allows manufacturers to lower the overall fat content and caloric density of their foods, thereby boosting their nutri-score,

Less sugar: Acacia gum has adhesive properties, and can be used as a binder or stabiliser in food products. It reduces the quantity of added sugars or high-calorie syrups used to obtain the desired texture and mouthfeel, without impairing the flavour. Here also, lower sugar content can help improve the Nutri-score,

Fewer calories: Gum acacia is relatively low in calories; replacing calorie-dense ingredients used in food processing with gum acacia can also have a positive impact on the nutri-score,

Higher in fibre: Gum acacia is a prebiotic dietary fibre that can be integrated into industrial recipes. Given that higher fibre content is generally associated with healthier nutritional profiles, the nutri-score can be positively affected by the addition of gum acacia.



WHAT IS THE NUTRI-SCORE?

system of nutritional labelling that grades food products based on their level of quality, using letters and colours, ranging from A-E and from green to red. The score is allocated based on a food item's content, in terms of positive and negative nutrients and ingredients.

30 %
OF THE WORLD'S POPULATION IS
OVERWEIGHT OR OBESE²



ALLAND & ROBERT UPGRADES A BISCUIT RECIPE'S NUTRI-SCORE FROM C TO A

The Alland & Robert Research and Development teams performed a positive test based on a standard multi-grain biscuit recipe with a nutri-score of C. By adding 3% gum acacia and reducing the sugar content by 30%, the team was able to reduce the quantity of fat and sugar, lower the caloric density and increase the fibre content. The modified recipe went from a nutri-score of C to an A rating, all without altering the product's flavour profile.

² <https://www.niddk.nih.gov/health-information/health-statistics/overweightobesity>

INTEGRATING GUM ACACIA INTO YOUR HOME COOKING COULDN'T BE SIMPLER!

Of course, gum acacia isn't just for the food industry – in fact, it's easy to incorporate into your everyday cooking! The gum is now sold in pouches in France, via online retail platforms accessible to the public. It provides an alternative ingredient for individuals following gluten-free or vegan diets. Below are the top 3 queries about using gum acacia in home cooking.

1 What kind of recipes can you add acacia gum to?

Answer: all kinds! Juices, smoothies, cookies, quiches, cakes or brioche doughs...



For vegan diets

100% plant-based, sourced directly from the acacia tree, the gum helps improve the texture of egg-free or non-dairy recipes, giving them greater body or a fondant texture.



In liquid recipes

The gum allows you to mix and blend liquids such as oil and water, which is highly useful when making drinks, smoothies, vinaigrettes, etc., as it increases their smoothness and creaminess. As it is rich in healthy prebiotic fibres, the gum is also a draw for fans of "super foods": it helps improve your gut transit and regulate blood insulin levels.



For gluten-free diets

It improves the texture of gluten-free recipes, which often lack the dense, spongy effect desired. Gum acacia helps items hold together, with an airier texture and better rising.

2 How can I use gum acacia?

Gum acacia is very easy to use; in powder form it can be added to any recipe, usually along with the flour, starch or other dry ingredients. It is effective even at low doses: between 1 and 6% of the total recipe weight is enough to reap the benefits.

3 Where can I find gum acacia powder?

It is available in 150g pouches from online retail sites (Amazon or Greenweez).



"OUR MODEL HAS ALWAYS BEEN NATURE-ORIENTED"

Being highly conscious of the social and environmental challenges humanity currently faces, Alland & Robert is working to establish a sustainable supply chain, and undertaking numerous initiatives in favour of an ethical production model. Violaine Fauvarque, head of CSR at Alland & Robert, details the company's commitments.



HOW DO THESE COMMITMENTS TAKE SHAPE?

The various certifications we hold are testament to our commitment in terms of ethics and environmental responsibility (c.f. page 13).

Our climate strategy is aligned with the 2015 Paris Agreement, and we stand to reduce our greenhouse gas emissions by 20% by 2025. Among our recent advances, we launched the Beyond Acacia® range of gums, whose carbon footprint has been reduced by 50% compared to a standard gum acacia. We also work on initiatives both upstream and downstream in our value chain: international shipping, waste management, and transport. We are also upgrading our CSR policy as part of a global approach for our teams and the areas in which we operate.

WHAT IS THE FOCUS OF THE CORPORATE FOUNDATION ALLAND?

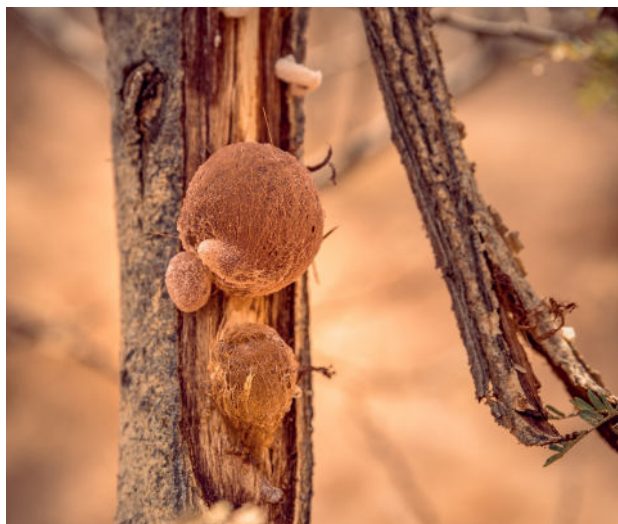
Our commitments are aligned with our corporate vision. Alland & Robert seeks to offer natural, plant-based and low-carbon solutions for healthier and more sustainable foods. To achieve this, the company is committed to preserving traditional expertise and supporting the harvesting of natural gums, and resilient development for local communities. We have also prioritised seven of the seventeen Sustainable Development Goals (SDGs) put forward by the United Nations:

no poverty, good health and well-being, gender equality, decent work and economic growth, responsible consumption and production, climate action, and life on land. Finally, because we understand the necessity of getting our entire supply chain involved in order for our strategy to bear fruit, all our partnership protocols with our suppliers include social, ethical and environmental criteria, and our Quality department carries out annual audits and delivers training in best practices



WHY ARE THESE ENVIRONMENTAL AND SOCIETAL CONCERNS OF SUCH CENTRAL IMPORTANCE TO ALLAND & ROBERT?

The story of our company and its growth since the early days all trace their roots back to the acacia tree, which grows in the Sahel and cannot be farmed. Preserving nature, and respecting and improving the living conditions of the local communities who harvest the gum acacia, are therefore core priorities for us. Climate change is increasing the risk of desertification, which could wipe out the acacia tree. If they were to go, we would simply disappear as well.



HOW DO THESE COMMITMENTS SET ALLAND & ROBERT APART IN THE GUM ACACIA SECTOR?

In 2023, we obtained the Fair For Life fair trade certification, which is a first for the gum acacia chain and our sector, as Alland & Robert is currently the only company to have earned this recognition. We spent two years working with our suppliers to meet the criteria required, reflecting our ambitious targets for ethics and sustainability. In terms of reducing our greenhouse gas emissions, we are working on Scopes 1, 2 and 3¹, and we publish regular communications across all scopes. Because Scopes 1 & 2 represent only 50% of our emissions, it's essential to take the totality into account – this is another aspect that sets us apart from other operators in the sector.

WHAT IS THE FOCUS OF THE CORPORATE FOUNDATION ALLAND?

There are two key priorities that guide the Alland & Robert Foundation: supporting local communities in terms of education, healthcare, infrastructures and the role of women, and the Preservation of the environment and African biodiversity – in the countries in which Alland & Robert operates, and in Africa more broadly. Its primary mission is to oversee the partnership between Alland & Robert and Tree Aid, a UK-based NGO (non-governmental organisation) specialising in the reforestation of arid African regions, and a contributor to the Great Green Wall. Since 2020, the first year of the partnership, the initiative has enabled over 16,000 trees to be planted in the Sahel.



¹ Scopes 1, 2 and 3 of the Greenhouse Gas Protocol provide a means of categorising the various types of carbon emissions that a company creates during its own operations and throughout its wider value chain. Scope 1+2 include direct and indirect emissions.



More information

<https://www.allandetrobert.com/>

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