

Innovation

ACACIA GUM BOOSTS
BISCUIT "NUTRI-SCORE"

By reducing the amount of sugar and fat while adding fibre, acacia gum helps improve the nutritional value of biscuits and other food products.

IN ACTION: adding acacia gum to a biscuit recipe boosted the "Nutri-Score" from C to A

Adding acacia gum – and reducing sugar content – is a very effective way to improve the "Nutri-Score" of industrial biscuits. The clear health advantages align with consumer expectations – the French government-backed Nutri-Score nutritional rating system has become a benchmark for those looking to achieve a balanced diet.

The Alland & Robert Research & Development team carried out testing using a standard multigrain cookie recipe with a "C" Nutri-Score. Adding 3% acacia gum and reducing sugar content by 30% led to less fat and sugar, a lower calorie intake, and more fibre. From an initial "C" score, the modified recipe obtained an "A". The final recipe was adjusted to consider the impact of acacia gum on texture, appearance and sensory experience. To support these findings, Alland & Robert then conducted consumer tests, which showed that the acacia gum cookies were generally preferred and classed as «high quality» during sensorial analysis. Their characteristics and nutritional value were improved compared to "control" recipes that did not contain any acacia gum. Similar results were achieved for other recipes. By adding acacia gum and reducing sugar, the Nutri-Score for muffins was upgraded from "D" to "C", and a gluten-free chocolate cake moved from "E" to "D".



Bonus: the additional fibre provided by the acacia gum is not degraded during cooking.

The Nutri-Score, a benchmark adopted by consumers and manufacturers



Launched in France in 2017, the Nutri-Score nutritional rating label appears on the packaging of many foods. This simple rating system summarises the overall nutritional quality of the food, considering negative points like calories, saturated fat, sugar and salt, and positive ones such as fibre, protein and vitamins. As well as appealing to consumers, the Nutri-Score also encourages food manufacturers to improve the nutritional quality of their products.

ACACIA GUM IMPROVES THE NUTRITIONAL PROFILE OF INDUSTRIAL FOOD PRODUCTS

In the face of rising obesity levels and growing consumer demand, the food industry is being urged to limit the amount of sugar in products. As a low-viscosity texturing agent, acacia gum improves the mouthfeel of sugar-free and reduced-sugar recipes. When partially or totally replacing sugar, it induces a low glycemic response due to its high fibre content. Remaining stable at different temperatures, it can be easily added to a wide range of recipes.

Public health challenge: reducing sugar

Nearly 30% of the world's population is overweight or obese, and this figure reaches 70.2% of adults in the United States. It is also scientifically proven that consuming too much sugar increases the risk of diabetes and cardiovascular disease.



MULTIGRAIN COOKIES WITH ACACIA GUM

INGREDIENTS (% WEIGHT)

25.6	Flour
6.5	Brown sugar
13.2	Rapeseed oil
16.5	Egg
24.8	Oatmeal
0.5	Baking powder
8.0	Raisins
1.9	Sunflower, chia & sesame seeds
0.05	vanilla and cinnamon flavouring
3.0	Acacia gum

1. Mix the acacia gum and eggs and then mix in all the other ingredients.
2. Shape into 1cm-thick disks in silicone moulds. Bake for 14 minutes at 180°C.
3. Turn out of the moulds and leave to cool. Store in an airtight container.

In a nutshell... What are the advantages of acacia gum?



LESS FAT

Acacia gum helps compensate for reduced fat content in food applications such as salad dressings, sauces and bakery products. It reduces the overall fat content and caloric density, while improving the Nutri-Score.

MORE FIBRE

Acacia gum is a dietary prebiotic fibre that can be incorporated into industrial food recipes. Given that fibre-rich products have a healthier nutritional profile, adding acacia gum can have a positive impact on the Nutri-Score.

LESS SUGAR

Acacia gum can be used in nutrition bars as a binder. Its adhesive properties hold the ingredients together with no need for sugar or honey. It also compensates for the loss of texture and volume resulting from reduced sugar content, and acts as a flavour enhancer. Lower sugar content can therefore contribute to a better Nutri-Score.

FEWER CALORIES

Acacia gum contains relatively few calories compared to many other ingredients used in industrial food products. Replacing calorie-rich ingredients with acacia gum can therefore boost the Nutri-Score.

MULTI-TALENTED

Acacia gum can be added to a multitude of food products, including sweets, soft drinks and bread. It acts as a texturing agent, emulsifier and stabiliser, as well as adding fibre. As a 100% plant-based ingredient, it represents an excellent alternative for vegetarian and vegan food products.

Keen to stock up?



Head to the Alland & Robert website

Dive deeper into glycemic load



The harmful effects of sugar consumption on health are now well known, from diabetes to cardiovascular disease. In particular, we need to reduce the glycemic load of what we eat – that is to say, how much the food raises your blood glucose level. This depends on both the quantity of carbohydrates and the speed at which the glucose enters the bloodstream. Studies have shown that acacia gum helps lower the peak glycemic response triggered by food products. A great way for manufacturers to craft natural, low-sugar recipes, while preserving taste and texture.

WORLD EXPERT IN NATURAL GUMS

Founded in 1884, Alland & Robert is still a 100% family-run business based in Normandy, France. At the heart of this success lies an unwavering commitment to sustainable, respectful yet demanding product development.