



# Brazil Nut and Amazon Mushroom

The by-product of the Brazil nut production chain is versatile and can be transformed into seitan, whole-cut meat substitute.

With the support of The Good Food Institute Brasil, Dr. Ceci Sales da Gama Campos from the National Institute for Amazonian Research developed a process to use the **by-product of the Brazil nut industry** to produce seitan, a meat analog. Furthermore, cheese analog was made from Brazil nut milk.

Brazil nuts have an established production chain, but their by-product, resulting from oil extraction, is still little used. Taking advantage of this waste can offer sustainable alternatives and boost local communities' income, promoting the region's economic and environmental sustainability.

The products development included an **Amazonian mushroom, which improved their nutritional value**. This potentially benefits the consumer's health and opens up the possibility of including them in the functional foods category.

Two products were developed following the principles of the circular economy: **seitan, a plant-based meat analog, and plant-based cheese**.

## Seitan + mushroom:

- Made from the by-product of Brazil nut oil extraction;
- Very common in Asian cuisine, seitan is still little known in Brazil. It is an **excellent option for replacing meat** due to its appearance, texture and protein content;
- It can be an excellent option for **whole-cut plant-based meat**, a product highly demanded by consumers and still rarely found on the Brazilian market;
- It is a base product, **without the addition of additives**, opening up many application possibilities;
- The addition of mushrooms to seitan improved the nutritional characteristics of the product, mainly increasing **the fiber content**;
- It was well-accepted in sensory tests.

## The nut-based cheese + mushroom:

- Made from Brazil nut milk;
- Contains a **higher fiber content** than cheeses currently available on the market, both traditional cheeses such as mozzarella and other cheeses analogs such as cashew nut-based cheeses;
- **It is free from lactose**, casein, and soy, making it an excellent alternative not only for vegan consumers but also for those intolerant to these components;
- It was well received in sensory analysis tests with room for improvement.

## Invest in the project

Continued research promises significant advances, driving improvements in outcomes and opening new opportunities for innovation. The following steps include:

- Incorporating additives to deliver the characteristics expected by the consumer, thus increasing the attractiveness of the products on the market;
- In addition, the development of new formulas and their textural analyses are planned;
- Finally, partnerships will be sought to expand the production of these new products.

## Interested?

Then, find out more details about the research:

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To support and invest in the continuity of the project, contact our team by e-mail:

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Presented by:

