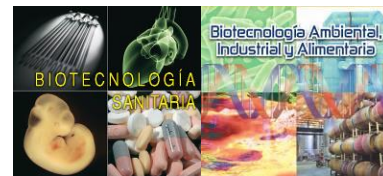

Poster

“DESIGN OF A NEW CLEAN LABEL VEGAN TEXTURIZING INGREDIENT”.



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ABSTRACT

The general objective of this project is the design and development of a new clean label vegan texturising ingredient, with binding and gelling properties, based on tiger nut derivatives with the capacity to replace gelling/thickening E number additives in meat substitutes. This new intermediate product aims to replace the use of additives (hydrocolloids) in vegan products, giving rise to a clean-label end product, minimizing those additives with little or no nutritional value. The objective is to develop an intermediate product with a specific composition concentrated in starch and fiber, with a malleable structure and rheology, and adequate palatability. To achieve this, the tigernut raw materials will be subjected to the individual and synergic application of physical, chemical and/or enzymatic techniques, for the modification at the level of nutritional concentrations, lipid reduction, amylose/amylopectin ratio and size/morphology of the starch granules. By doing this we aim to favor and maximize the technological capacities of the tiger nut, allowing the functionality of the texturising additives to be emulated.

In addition, it must be guaranteed that the ingredient does not add any strange color, taste or odor, in order to maintain the same sensory and textural characteristics in vegan matrices with respect to their meat and/or vegan counterparts with additives. It should be noted that the development of this intermediate product opens up the possibility of taking advantage of those tiger nut peeling by-products of low commercial value originating in the company, giving them a new use of greater benefit. As for the tasks carried out, it is worth highlighting the technical study and characterisation of the tiger nut and its derivatives for the development of the intermediate product, as well as the design and development of the clean label texturising ingredient based on tiger nut derivatives.

To date, this project has not been completed yet, so alternatives are still being sought to improve the product through the company's internal research lines. The results obtained have provided sufficient information and data to rule out certain types of treatments and products used, but there is still room for improvement in order to fine-tune the final product to be obtained.

"Se entrega con el visto bueno de mi tutor: Said Hamad Gómez. "

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