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Campus Universitário – Viçosa, MG – 36570-900 – Telefone (31)3612-6705/6760 – E-mail: tca@ufv.br

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DEVELOPMENT OF STRATEGIES FOR THE PRODUCTION OF *PLANT BASED* BEVERAGE ANALOGUES TO MILK

Postgraduate student: Flaviana Coelho Pacheco

Advisor: Prof. Dr. Bruno Ricardo de Castro Leite Junior (Food Technology Department)

Nível: (x) MS () DS

For years, milk production has been one of the most important commodities on the global market. However, several authors relate the milk and dairy production chain to the generation of negative impacts on the environment. In addition, the number of individuals with lactose intolerance and milk protein allergy has been growing over the years, along with veganism and vegetarianism. Plant-based non-dairy alternatives typically have a lower environmental impact, making them a more sustainable option compared to animal-based options. The composition of plant-based beverages is directly related to the composition of the raw material, which differs when compared to cow's milk. These products do not contain lactose and generally have a lower protein content, which may have low digestibility and contain the presence of antinutritional factors. In addition, plant based beverages analogous to milk have some limitations such as: low stability and unpleasant taste. In this context, strategies have been studied to improve the sensory, nutritional and functional properties of plant-based milk substitutes. As an example, the nutritional value of these plant-based beverages can be met by enriching them with minerals and vitamins and/or preparing them from more than one plant source, since these plant bases have different nutritional and physicalchemical characteristics. The stability and sensorial characteristics, such as the unpleasant taste, can be improved through the use of non-conventional technologies. In fact, the plant-based market has been expanding and the consumer demand for these foods has been increasing in recent years, however, more studies are needed that can bring improvements to the sector and meet the needs of consumers.

Keywords: Environment; Non-dairy alternatives; Functional properties.

Referências bibliográficas:

Haas, R.; Schnepps, A.; Pichler, A.; Meixner, O. Cow milk versus plant-based milk substitutes: A comparison of product image and motivational structure of consumption Sustain, v. 11, 2019.

Bocker, R.; Silva, E.K. Innovative technologies for manufacturing plant-based non-dairy alternative milk and their impact on nutritional, sensory and safety aspects. Future Foods, v. 5, 2022.

Aydar, E.F.; Tutuncu, S.; Ozcelik, B.. Plant-based milk substitutes: bioactive compounds, conventional and novel processes, bioavailability studies, and health effects. J Funct Foods, v. 70, 2020.

Frof. Br. Bruno Ricardo de C. Leite Jr.
Dpto. de Tecnologia de Alimentos-DTA/UFV
Matricula: 12.421-4

Orientador (a)

Orientado(a)