World Academy of Science, Engineering and Technology
International Journal of Nutrition and Food Engineering
Vol:18, No:05, 2024

Development of Non-frozen Vegan Burger Patty Using Tender Jackfruit (Artocarpus Heterophyllus) as a Meat Substitute: Evaluation of Textural, Physico-Chemical, and Sensory Characteristics

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Abstract : Tender jackfruit is an underutilized biomass, which still has a good consumer demand. Valorization of this ingredient into meat analog would obtain greater consumer acceptance due to concerns about health, the environment, and living sustainably of mankind have increased significantly in this decade, opening the market for meat substitutes. The objective of this research was to create a plant-based meat substitute with a structure similar to meat products. In this study, three different combinations of tender jackfruit were used to create vegan burger patties, which were then examined for their textural, physico-chemical, and sensory qualities. The developed burger patties have been compared with store-bought chicken patties. The developed vegan burger patties P1, P2, and P3 had a comparable flavor preference to the control and demonstrated considerable general acceptability ($p > .05$). P3 has a high quantity of protein (17.10 ± 0.02%) and fiber (6.40 ± 0.06%). At the same time, the vegan burger patty resulted in less fat, high fiber, and high protein which meets the vegan consumer requirements.

Keywords : underutilized, high fibre, soya protein isolate, cooking yield
Conference Title : ICFSN 2024 : International Conference on Food Science and Nutrition
Conference Location : Vancouver, Canada
Conference Dates : May 20-21, 2024