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Sensory Acceptability and Characterization of Tufo Enhanced with Banana Blossom *(Musa acuminata)*

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Abstract: *This study aimed to develop tofu enhanced with banana blossom extract (Musa acuminata) and assess its acceptability as a plant-based food product. Specifically, it examined the sensory acceptability of three tofu formulations, determined significant differences among the formulations, and identified its nutritional composition. The study used a descriptive-developmental research design and was conducted at the Food Technology Innovation Center of Surigao del Norte State University. Three formulations of banana blossom tofu were created and evaluated through sensory testing using a 9-point hedonic scale by 120 purposively selected respondents composed of TLE/TVL students and teachers/food experts. Quantitative data were analyzed using descriptive statistics, repeated measures MANOVA, ANOVA, and post hoc tests.Findings showed that among the three formulations, Formulation A consistently received the highest sensory acceptability scores across all attributes—appearance, aroma, taste, texture, and composite appeal. Statistical analyses confirmed significant differences in sensory attributes across formulations, with Formulation A emerging as the most preferred. Nutritional analysis of Formulation A revealed it is low in fat and sodium but high in protein, making it a viable and healthy food option.The study concludes that tofu enriched with banana blossom extract is an acceptable and nutritious plant-based alternative. The incorporation of banana blossom not only enhances the sensory and nutritional properties of tofu but also presents opportunities for innovation in the local food industry and agriculture. This supports its potential commercialization and inclusion in sustainable food development initiatives.*

Keywords: *Banana Blossom Extract, Plant-Based Tofu, Sensory Evaluation, Food Innovation, Nutritional Analysis*

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