The Level of Sensory Acceptability of Gumihan Fruit (Artocarpus sericicarpus) and Mango Fruit (Mangifera indica) as Wine

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Abstract

This study evaluates the sensory acceptability of Mango (Mangifera indica) and Gumihan (Artocarpus sericicarpus) fruit wine based on color intensity, floral and tropical notes, acidity, bitterness, and overall acceptability. Using an experimental quantitative design, data were gathered through the 9-Point Hedonic Scale from 400 randomly selected residents and local farmers in Libmanan, Camarines Sur. Results show a high overall mean score of 8.609, indicating strong market potential for both fruit wines. Mango contributes natural sweetness and aroma, while Gumihan adds unique flavor characteristics and bioactive compounds, including antioxidants and cholinesterase-inhibitory properties, which may offer additional health benefits. The combination of these fruits enhances key wine attributes such as aroma, clarity, flavor balance, and color intensity, making the product appealing to a broad consumer base. Mango and Gumihan were selected as primary ingredients to explore their potential in creating a distinctive, nutrient-rich, and consumer-friendly wine. Mango is widely available and flavorful, while Gumihan—native to Bicol and less commonly used—was included to highlight its existence and potential value in the Philippine food industry. Overall, the study demonstrates that Mango and Gumihan fruit wines are promising alternatives for tropical wine production and local market innovation.

Keywords: Acceptability, Gumihan Fruit (Artocarpus sericicarpus), Mango Fruit (Mangifera indica), Sensory, and Wine