

## **A Study on Sensory Attributes of White Wine from Jack Fruit (*Artocarpus heterophyllus*) Seed Flour with Incorporation of Bitter Gourd (*Mormodica charantia* L.) and Cinnamon (*Cinnamomum zeylanicum* Blume) Powder**

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Jack fruit (*Artocarpus heterophyllus*) seeds are discarded as the fruit waste due to the lack of preservation and processing techniques. As an ingredient, jack seed flour in new product development helps in effective utilization. The present study aimed to assess and compare sensory attributes of white wine from jack fruit (*Artocarpus heterophyllus*) seed flour with the incorporation of bitter gourd (*Mormodica charantia* L.) and cinnamon (*Cinnamomum zeylanicum* Blume) powder. Jack fruit seed flour was hydrolyzed by using 0.5% citric acid. Cinnamon powder at 1% and crushed bitter gourd at 5% were added to hydrolyzed jackfruit seed flour. The mixture was inoculated with 0.1% *Saccharomyces cerevisiae* and allowed to ferment for two weeks. Wine samples were prepared with 2% and 4% jack fruit seed flour. The coded transparent cups were served with control to 32 un-trained panelists. The commercially available chardonnay white wine was served as the control. Samples were assessed for color, aroma, mouthfeel, taste, and overall acceptability using duo-trio method in the 5th week of fermentation. Data from the sensory evaluation were analysed using the Kruskal-Wallis non-parametric test in Minitab 17®. All the sensory attributes were showed a significant difference ( $p < 0.05$ ) amongst two wine samples. The highest preference for the color (38.5), taste (37.5), and overall acceptability (38.5) were obtained by the 2% jack fruit seed flour incorporated wine to sample. Least acceptance for color (26.5), taste (27.5), overall acceptability (26.5), and highest acceptance for aroma (37.5) and mouthfeel (36.5) were recorded from the 4% jack fruit seed flour incorporated wine to sample. In conclusion, the 2% jack fruit seed flour incorporated wine is the best amongst the treatments which were highly preferred by the panelists.

**Keywords:** White wine, Jack seed, Bitter gourd, Cinnamon powder, Sensory attributes