

# EVALUATION OF KOMBUCHA FERMENTATION USING DIFFERENT TYPES OF TEA

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Kombucha is a fermented tea beverage that is widely valued for its refreshing sensory properties and potential functional attributes. However, variations in tea composition and fermentation conditions can lead to significant differences in fermentation dynamics and product quality. This emphasises the importance of systematically evaluating raw material selection. This study aimed to evaluate the influence of different tea substrates on the kombucha fermentation process and selected quality characteristics. Kombucha was produced using three types of tea, including hibiscus, green and black tea, under controlled fermentation conditions. Throughout fermentation, key physicochemical parameters such as pH, total acidity, alcohol content, and foam stability were monitored. In addition to the physicochemical analysis, the sensory properties of the kombucha samples obtained were assessed to determine differences in aroma, taste, mouthfeel and overall acceptability. A comparative analysis was performed to identify relationships between tea composition, fermentation behaviour and the resulting sensory and quality attributes of the beverages. This study improves our understanding of how tea selection affects kombucha fermentation and supports the development of kombucha products with optimised quality profiles and improved consumer acceptance.