

## ABSTRACT

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### **COMPARISON OF CHEMICAL PROPERTIES AND ANTIOXIDANT ACTIVITY OF KOMBUCHA MADE FROM VARIOUS TYPES OF TEA**

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Kombucha is a fermented beverage obtained from the symbiosis of yeast and bacteria and rich in antioxidant. It is preferred by many consumers since it provides many health benefits. However, its availability in the food industry is not maximized. Kombucha was generally made by the leaves of *Camellia sinensis*. Aside from that, there are lots of raw material that can be used to make kombucha including herbal teas and cascara. This literature review was conducted to compare the chemical property, total phenolic content and antioxidant activity of kombucha prepared from various teas. Chemical property analyzed was pH after fermentation and shown that from various kombucha, green tea kombucha had the lowest pH of  $2.61 \pm 0.03$  followed by Gayo-arabica cascara of 3, and herbal teas ranging between 3.5 to 3.7. Phenolic content shows higher in kombucha made from Gayo-arabica cascara of 98.05 mg GAE/ml followed by Ranum cascara of 6.3 mg GAE/ml and the least is kombucha from black tea of 0.455 mg GAE/ml. Kombucha teas and herbal teas shows higher in antioxidant activity compared to kombucha cascara. The highest was possessed from kombucha green tea of 91.4%, followed by kombucha cherry tea of 80.91%, kombucha ashitaba tea of 80.41%, kombucha white tea of 79.13%, kombucha moringa tea of 77.17%, and kombucha black tea of 70.6%, and the least is kombucha gayo-arabica cascara of 48.8%. It shows that all kombucha made from various teas have great potential as functional beverage since all of them had strong antioxidant activities.

Keywords : Antioxidant, kombucha cascara, kombucha tea, phenolic

Reference : 50 (2008-2021)