

ABSTRACT

Aziizah Nur Fayakun. 24020120130085. Antioxidant Activities and Organoleptic of Kombucha From Coffee's peel with Different Sugar Concentrations. Under the guidance of Endang Kusdiyantini and Sri Pujiyanto.

Coffee is an agricultural commodity that is quite promising for increasing state income. Processing coffee beans will produce waste products in the form of coffee peel that are underutilized. Coffee's peel contains antioxidants in the form of epicatechin and catechin so it can be used as a functional beverage such as kombucha. Making kombucha requires water, substrate, sugar, and a SCOBY. The aim of this research is to analyze antioxidant activity and determine the best sugar concentration for organoleptic from coffee's peel. kombucha with different sugar concentrations. The coffee peel kombucha tested consisted of different sugar concentrations, namely 10%, 15% and 20%. The parameters tested were the pH value using a pH meter, alcohol content using the pycnometer method, antioxidant activity using the DPPH method, and organoleptic using the hedonic test. After that, data analysis used ANOVA for antioxidant activity and the Friedman test for organoleptic. The research results show that the pH value of coffee's peel kombucha is in the range of 2.67-2.74. The alcohol content in coffee husk kombucha is in the range of 0.2-0.5%. The antioxidant activity of coffee skin kombucha with different sugar concentrations has an IC_{50} value of 7.683 ppm (20% sugar concentration); 9,433 ppm (sugar concentration 15%); and 13,622 ppm (10% concentration). Sugar concentration affects the antioxidant activity of coffee peel kombucha, where the highest antioxidant activity is 20% sugar concentration. The best sugar concentration for organoleptic is 15%.

Keywords: cascara arabika, DPPH, functional beverage