

## ABSTRACT

### ANTIBACTERIAL POTENTIAL TEST OF MANALAGI APPLE PEEL KOMBUCHA (*Malus sylvestris*) AGAINST *Staphylococcus aureus* BACTERIA

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*Manalagi* apple (*Malus sylvestris*) is a type of Malang apple. Apple consist of flesh and peel. Apple peel has many benefits. Apple peel contains polyphenols, phytochemicals derived from polyphenols (catechins, quercetin and chlorogenic acid) and flavonoids which is antibacterial agents. Treatment of infection generally uses antibiotics. Kombucha was an alternative for antibiotics. Kombucha was a fermented drink between tea and sugar by a kombucha starter (SCOBY). Kombucha has many benefits of lowering blood pressure, antioxidant, antibacterial and boost imunity. This study used 10 grams, 15 grams and 20 grams apple peel. The sample used in this study was *manalagi* apple peel kombucha with 50%, 75% and 100% concentration in 1 week fermentation. This study was tested with *Kirby Baurer* disc diffusion method with aquadest as negative control. The outline of this study were SCOBY culture preparation, *manalagi* apple peel preparation, apple peel kombucha preparation, preparation of growth media, observing and measuring the inhibition zone formed. *Manalagi* apple peel kombucha with 100% concentration has highest antibacterial activity with 19,75 mm. Based on this study, *Manalagi* apple peel kombucha has potential against *Staphylococcus aureus* bacteria.

**Keyword** : *Manalagi* apple, apple peel kombucha, antibacterial activity