

ABSTRACT

INHIBITION TEST OF MANALAGI (*Malus sylvestris*) APPLE PEEL KOMBUCHA AGAINST *Bacillus subtilis* BACTERIA

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The purpose of this research was to determine the inhibition of manalagi apple peels kombucha for bacteria *Bacillus subtilis* growth. Kombucha is made from fermented by a kombucha symbiotic culture (SCOBY). One of the fruits that can be used as substrate of kombucha is apples. The peel of manalagi apples has more active compounds than the fruit's flesh. The active compounds has benefits as an antibacterial agent. *Bacillus subtilis* can also be found in the human body. *Bacillus subtilis* will be toxic if its number increases. This study uses experimental research to determine the inhibitory power of manalagi (*Malus sylvestris*) apple peel kombucha against *Bacillus subtilis* bacteria. The concentration of manalagi apple peel used is 10 grams, 15 grams and 20 grams, with the duration of fermentation being one week. The concentration of the inhibitory power test used is 50%, 75% and 100%. Based on the observations, the largest average was found in the concentration 20 grams of manalagi apple peel and the concentration of the inhibitory test 100% was 15,15 mm. Concentration factors influence the difference in diameter results. The greater the concentration used, the greater the inhibition zone formed. Manalagi apple peel kombucha has antibacterial activity against the growth of *Bacillus subtilis*.

Keyword : Manalagi apple peel, Manalagi apple peel kombucha, *Bacillus subtilis*