

ABSTRACT

POTENTIAL INHIBITING EFFECT OF MANALAGI APPLE PEEL KOMBUCHA (*Malus sylvestris*) ON THE GROWTH OF YEAST MOLD IN CATFISH (*Clarias* sp.)

Wenny Rosida Mayangsari Gigin

Manalagi apple (Malus sylvestris) is a type of Malang apple. Apples 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 are antimicrobial agents. Kombucha is a fermented drink made of a mixture of tea and sugar by a kombucha culture starter called (SCOBY). Kombucha contains compounds such as protein bacteriocins, enzymes, tea containing phenolic compounds, tannins, and organic acids such as acetic acid, lactic acid and citric acid with a concentration of around 1% -5%, which are known to be used as antimicrobial agents. Synthetic acetic acid is often used, but natural acetic acid from processed plants such as vinegar or vinegar can also be used as an antimicrobial in animal food ingredients. The purpose of this study was to determine the potential inhibition of kombucha from Manalagi apple peel on the growth of yeast on catfish (Clarias sp.). This study used 10 grams, 15 grams and 20 grams of apple peel. The samples used in this study were kombucha apple peel manalagi with concentrations of 50%, 75% and 100% at 7,10,14, and 21 days of fermentation. This study was tested using the Kirby Baurer disc diffusion method. The outlines of this research were SCOBY culture preparation, manalagi apple peel preparation, manalagi apple peel kombucha preparation, growth media preparation, catfish meat microbial suspension testing and observation and measurement of the inhibition zones formed. Kombucha apple peel manalagi at 20% concentration and 100% concentration with 21 days fermentation time. has the highest antimicrobial activity of 3.55 mm. Based on this study, kombucha from manalagi apple peel has the potential to inhibit the growth of yeast on catfish (Clarias sp.)

Keywords: *Manalagi apple, kombucha apple peel, antifungal activity*