INTISARI

Kulit nanas (*Ananas comosus*) mengandung enzim bromelin, tanin, dan flavonoid yang mempunyai efek antibakteri terhadap pertumbuhan *Streptococcus mutans* penyebab karies gigi.Penelitian ini bertujuan untuk mendapatkan formulasi pasta gigi ekstrak kulit nanas dan mengetahui efektivitas antibakteri pasta gigi ekstrak kulit nanas terhadap pertumbuhan *Streptococcus mutans*.

Kulit nanas diekstraksi menggunakan metode maserasi dengan pelarut etanol 90%. Bahan formulasi pasta gigi meliputi $CaCO_3$, sorbitol, gum arab, *papermint oil*, *aquades*, dan gliserin. Pasta gigi diuji kualitasnya meliputi uji organoleptik, homogenitas, danpH. Pasta gigi ekstrak kulit nanas konsentrasi 6,25%, 12,5%, dan 25%, pasta gigi tanpa ekstrak, dan pasta gigi pepsodent®diuji menggunakan metode difusi pada media TSA. Daya antibakteri pasta gigi diuji dengan mengukur diameter zona hambatnya.Data evaluasi kualitas formulasi pasta gigi dan uji efektivitas antibakteri pasta gigi ekstrak kulit nanas (*Ananas comosus*) dianalisis secaradeskriptif.

Uji evaluasi formulasi pasta gigi untuk uji organoleptik pada warna,tekstur, dan aroma pasta gigi ekstrak kulit nanas konsentrasi 12,5% paling optimal dibandingkan dengan konsentrasi yang lainnya dan hasil uji pH adalah 5-6.Rata-rata diameter zona hambat pasta gigi ekstrak kulit nanas (*Ananas comosus*) 6,25%, 12,5%, 25%, dan pasta gigi tanpa ekstrak adalah 0 mm dan pasta gigi pepsodent®adalah 18,4 mm.Formulasi pasta gigi ekstrak kulit nanas yang optimal pada konsentrasi 12,5% dan pasta gigi ekstrak kulit nanas6,25%, 12,5%, dan 25% tidak menghambat pertumbuhan bakteri *Streptococcus mutans.*

Kata kunci :*Streptococcus mutans,* pasta gigi, ekstrak kulit nanas

ABSTRACT

The skin of the pineapple (Ananas comosus) contains the enzyme bromelin, tannins, and flavonoids which have antibacterial effects against the growth of Streptococcus mutans causes dental caries. This research aims to get formulations of toothpaste extract of pineapple skin and knowing the effectiveness of antibacterial toothpaste extract of pineapple skin against the growth of Streptococcus mutans.

This research uses the extracted pineapple skin using the method of maceration with solvent ethanol 90%. Formulation of the toothpaste was done using $CaCO_3$, sorbitol, gum Arabic, papermint oil, aquades, and Glycerin. Do test the quality of the toothpaste include organoleptic, its homogeneity, and a pH. Toothpaste extract of pineapple skin concentration 6.25%, 12.5%, 25%, and toothpaste without extracts, and pepsodent toothpaste® in test method using diffusion on TSA medium. Antibacterial toothpaste power against the growth of Streptococcus mutans evaluated diameter Power Zone Inhibition. Evaluation of data quality of the formulation of the toothpaste and test the effectiveness of antibacterial toothpaste extract skin the pineapple (Ananas comosus) analyzed are descriptive.

Test evaluation of toothpaste formulations for organoleptic extract toothpaste texture on the skin of a pineapple concentration of 25% less soft compared to other concentrations, its homogeneity test at concentrations of 25% is also less homogeneous, and pH test results are 5-6. on the Diameter of the Inhibition Zones toothpaste extract skin the pineapple (Ananas comosus) concentration of 6.25%, 12.5%, 25%, and toothpaste without the extract is 0 mm and pepsodent toothpaste ® is 19 mm. Formulations of toothpaste extract of the best pineapple skin at concentrations of 12.5% and DZI toothpaste extract of pineapple skin concentration 6.25%, 12.5%, and 25% not efektiv as Streptococcus mutans antibacterial power.

***Keywords**: Streptococcus mutans, toothpaste, skin of pineapple extract*