

Antimicrobial components from Tamarind (*Tamarindus indica* L.) and Pomegranate Rinds (*Punica Granatum*, Linn.) in goat's milk lotion

Abstract

The water soluble components extracted from tamarind pulps and pomegranate rinds were being investigated for their antimicrobial activity against two different types of bacteria; *Staphylococcus aureus* and *Escherichia coli*. There are mainly two methods used through the investigation including an agar disc diffusion method. By doing a primary screening, it was found that the optimum concentrations of water soluble extract were 80% w/v tamarind water extract and 70% w/v pomegranate rinds water extract. Then, these water soluble components were added to goat's milk base body lotion and tested for their efficiency of antimicrobial clear zone.

As a result, the water soluble extract from tamarind pulps exhibited the antimicrobial activity against *S. aureus* and *E. coli*, where the extract from pomegranate rinds exhibited the antimicrobial activity against *S. aureus* only. After the extracts were added into goat's milk lotion, the component was found to give the highest antimicrobial activity at 20 % w/w of 80% w/v tamarind pulps water extract and 10% w/w of 70% w/v pomegranate rinds water extract. Furthermore, the goat's milk body lotion contained the water soluble components has an antimicrobial effect with moisturizing and whitening the skin.