ABSTRAK

Infeksi jamur *Candida albicans* pada kulit dapat dicegah dengan cara mandi menggunakan sabun yang memiliki aktivitas antijamur. Minyak biji nyamplung dapat digunakan sebagai bahan baku alternatif yang potensial sebagai sabun antijamur. Ekstrak daun alamanda mengandung senyawa metabolit sekunder yang berpotensi sebagai bahan aditif antijamur. Sedangkan ekstrak daun pala ditambahkan karena memiliki kandungan saponin yang dapat meningkatkan busa sabun. Penelitian ini bertujuan untuk membuat formulasi sabun cair berbahan dasar minyak biji nyamplung dengan penambahan ekstrak metanol daun alamanda sebagai antijamur dan fraksi etil asetat ekstrak metanol daun pala sebagai pembusa alami. Bahan antijamur dan pembusa masing-masing ditambahkan dengan variasi konsentrasi 0; 0,1; 0,3; 0,5; 0,7; dan 0,9% (b/b). Sabun hasil formulasi dikarakterisasi sesuai SNI 4058:2017. Hasilnya dianalisis ANOVA satu arah dan diuji lanjutan dengan uji *Duncan's Multiple Range Test* (DMRT) dengan tingkat kepercayaan 95% (α = 0,05). Sabun dengan formulasi terbaik diuji aktivitas antijamur terhadap *Candida albicans* dengan metode difusi sumuran dan dilakukan uji organoleptik. Hasil penelitian didapatkan sabun formulasi terbaik yaitu sabun mandi cair minyak biji nyamplung dengan penambahan ekstrak metanol daun alamanda 0,3% dan fraksi etil asetat ekstrak daun pala 0,9% (SFA2P5) dengan nilai pH 9,18; total bahan aktif 34,0377%; asam lemak bebas 2,2515%; bobot jenis 1,0271 g/mL; dan stabilitas busa 93,1187%. Hasil uji aktivitas antijamur terhadap *Candida albicans* dilakukan dengan metode difusi sumuran dan diperoleh diameter zona hambat sebesar 44,85 mm yang artinya sabun memiliki aktivitas antijamur yang kuat.

Kata kunci: sabun, nyamplung, antijamur, daun alamanda, daun pala

ABSTRACT

Candida albicans fungal infection towards skin could be prevented by using the soap with antifungal activity during shower. Tamanu seed oil could be used as potential alternative source to make antifungal soap. Allamanda leave extract contains secondary metabolites that as potential as antifungal additive materials. Nutmeg leave extract were added because it contains saponin that can multiply the foam of the soap. This study aimed to formulate liquid soap made from tamanu seed oil with the addition of allamanda leave methanol extract antifungal agent and nutmeg leave ethyl acetate fraction of methanol extract as natural foaming agent. Antifungal agent and foaming agent were added with the variety of concentrations 0, 0.1, 0.3, 0.5, 0.7, and 0.9% (w/w). The prepared soaps were characterized following SNI 4085:2017. The results were analyzed using one way ANOVA test and followed by Duncan's Multiple Range Test (DMRT) at with 95% of significance ($\alpha = 0.05$). Antifungal activity of the best formula was tested using disk diffusion method and organoleptic test was occured. The result shows that the best formula was the tamanu seed oil soap with the addition of 0.3% allamanda leave methanol extract and 0.9% nutmeg extract ethyl acetate fraction of methanol (SFA2P5). The best formula has 9.18 pH value; 34.0377% total active agent; 2.2515% free fatty acid; 1.0271 g/mL density; and 93.1187% foam stability. Antifungal activity test towards *Candida albicans* occured using disk diffusion method resulted 44.85 mm inhibition zone which means that the soap has strong antifungal activity.

Keywords: soap, nyamplung, antifungal, allamanda leave, nutmeg leave