INTISARI

GUNAWAN, A., 2018, OPTIMASI FORMULA SHAMPO EKSTRAK LAPISAN PUTIH KULIT BUAH SEMANGKA (*Citrullus vulgaris,* Schrad.*)* DENGAN KOMBINASI HPMC DAN SARKOSYL SERTA UJI AKTIVITASNYA PADA JAMUR *Pityrosporum ovale,* TESIS, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Lapisan kulit putih semangka telah diketahui mempunyai aktivitas antijamur.Salah satu penyakit yang disebabkan oleh jamur adalah ketombe.Penelitian ini bertujuan membuat sediaan shampo ektrak lapisan putih kulit buah semangka yang mempunyai mutu fisik bagus dengan kombinasi Hidroksi Propil Metil Sellulose (HPMC) dan sarkosyl; mengetahui pengaruh variasi kombinasi Hidroksi Propil Metil Sellulose dan sarkosyl terhadap sifat fisik dan stabilitas sediaan shampo ekstrak etanolik lapisan putih kulit buah semangka.

Penentuan formula dengan simplex lattice design menggunakan software Design Expert® sebanyak 13 formula.Evaluasi uji meliputi sifat fisik (organoleptis, viskositas, sediaan shampo ekstrak etanolik lapisan putih kulit buah semangka bobot jenis, tegangan permukaan, tinggi busa, pH) dan stabilitas sediaan shampo ekstrak etanolik lapisan putih kulit buah semangka.Formula optimum diuji karakteristik fisik dibandingkan dengan prediksi hasil software Design Expert®.Formula shampo yang dihasilkan diuji aktivitasnya pada *Pityrosporum ovale* dan diuji keamanannya pada kulit dan mata kelinci.

Hasil uji menunjukkan bahwa HPMC dan sarkosyl berpengaruh terhadap sifat fisik sediaan shampo. Semakin besar konsentrasi natrium lauroil sarkosinat berpengaruh terhadap tinggi busa sediaan shampo dan HPMC berpengaruh signifikan terhadap bobot jenis, viskositas, tegangan permukaan dan stabilitas busa. Mutu fisik optimum pada HPMC 0.725%, dan natrium lauroil sarkosinat 1.275%. Shampo ekstrak lapisan putih kulit semangka mempunyai aktivitas anti jamur *Pityrosporum ovale* dengan konsentrasi efektif 40% dengan daya hambat 39,00 mm.

Kata kunci : lapisan putih kulit buah semangka, ekstrak etanolik, Hidroksi Propil Metil Sellulose, sarkosyl, *Pityrosporum ovale.*

ABSTRACT

GUNAWAN, A., 2018, FORMULA OPTIMATIONOFWATER MELON (*Citrullus vulgaris*, Schrad.)WHITE LAYERSRIND EXTRACT SHAMPO COMBINATION OF AND SARKOSYL AND ITS ACTIVITY TESTS IN *Pityrosporum ovale*,THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

The white skin layer water melon rind has been known have a antifungal activity. One of the diseases caused by fungi is dandruff. This study aims to make a preparation of Shampoo of white layer of watermelon rind extract which has good physical quality with a combination of Hydroxy Propyl Methyl Cellulose (HPMC) and sarcosyl; determine the effect of variations in the combination of Hydroxy Propyl Methyl Sellulose and sarcosyl on the physical properties and stability of the preparation shampoo of extract etanolic white layer of watermelon rind.

Determination of the formula with simplex lattice design using Design Expert® software as many as 13 formulas. Evaluation included physical properties (organoleptic, viscosity, preparation shampo extract etanolic white layer of watermelon peel type weight, surface tension, foam height, pH) and stability of the preparation shampo extract etanolic white layer of watermelon skin. The optimum formula was tested for physical characteristics compared to the predicted results of the Design Expert® software. The shampoo formula produced was tested for its activity on *Pityrosporum ovale* and tested its safety on rabbit's skin and eyes.

The results showed that HPMC and sodium lauroil sarcosinate had an influences on the physical properties of the preparation shampo. Increasing the sarcosyl concentration affects the foam height of the shampoo and HPMC has a significant effect on the specific gravity, viscosity, surface tension and stability of foam. The optimum physical quality in 0.725% HPMC, and 1.275% sarcosyl. Watermelon skin extract white shampoo has anti *Pityrosporum ovale* activity with an effective concentration of 40% with inhibition zona diameter is 39,00 mm.

Keywords: white layer of watermelon skin, ethanolic extract, Hydroxy Propyl Methyl Cellulose, sarcosyl, *Pityrosporum ovale*