

## INTISARI

Penelitian tentang optimasi formula krim anti *hair loss* ekstrak Saw Palmetto (*Serenoa repens*) dengan propilen glikol dan gliserol sebagai *humectant* : aplikasi desain faktorial bertujuan untuk mendapatkan formula optimum krim anti *hair loss* dari ekstrak Saw Palmetto.

Penelitian ini menggunakan rancangan eksperimental murni dan optimasi formula yang dilakukan dengan menggunakan metode desain faktorial. Optimasi dilakukan pada *humectant* yaitu propilen glikol dan gliserol dengan parameter sifat fisis krim yang diuji meliputi : viskositas, daya sebar, dan stabilitas krim dengan menggunakan perubahan viskositas serta uji iritasi primer untuk mengevaluasi terjadinya reaksi iritasi kulit menggunakan metode Draize.

Dari penelitian ini diperoleh bahwa gliserol merupakan faktor dominan dalam menentukan sifat fisik krim yang meliputi daya sebar krim, viskositas krim dan stabilitas krim sebagai krim anti *hair loss* ekstrak Saw Palmetto. Selain itu, dari hasil *countour plot super imposed* diperoleh suatu area optimum dalam formula krim anti *hair loss* ekstrak Saw Palmetto, dan dalam uji iritasi primer, krim anti *hair loss* ekstrak Saw Palmetto tidak memberikan efek iritasi pada kulit.

Kata kunci : propilen glikol, gliserol, krim anti *hair loss*, Saw Palmetto, dan desain faktorial

## ABSTRACT

Research about optimization of anti hair loss cream formula of Saw Palmetto (*Serenoa repens*) extract with propylene glycol and glycerol as humectants : factorial design application was aimed to get the optimum formula of anti hair loss cream of Saw Palmetto extract.

This research used pure experimental device and formula optimization that was done by using factorial design method. The optimization is conducted at humectants, propylene glycol and glycerol, with the physical properties of cream that was tested through spreadability, viscosity, and stability of cream by using alteration of viscosity and primary irritation test to evaluate the reaction of skin irritation by using the Draize method.

The result of this research was indicated that glycerol was the dominant factor in determining the physical characteristic of the cream by overing spreadability, viscosity, and stability of the cream as anti hair loss cream of Saw Palmetto extract. In the other hand, from the result of the super imposed countour plot was found an optimum area in anti hair loss cream formula of Saw Palmetto extract, and in primary irritation test, anti hair loss cream of Saw Palmetto extract did not give the irritation effect at skin.

Key word : propylene glycol, glycerol, anti hair loss cream, Saw Palmetto, and design factorial.