

## INTISARI

Penelitian ini bertujuan untuk mengetahui proses pencampuran yang dominan dalam menentukan sifat fisis krim serta memperoleh area proses pencampuran optimum yang memiliki sifat fisis yang baik dari sediaan krim.

Penelitian ini memakai rancangan eksperimental dengan metode desain faktorial dua faktor : lama pencampuran-suhu pencampuran, dan dua level. Yang dioptimasi dalam proses pencampuran adalah sifat fisis yang meliputi daya sebar dan viskositas. Data hasil penelitian dianalisis secara statistik dengan menggunakan *yate's treatment* dengan tingkat kepercayaan 95%.

Dari hasil percobaan optimasi dilakukan berdasarkan respon daya sebar dan viskositas. Faktor suhu pencampuran merupakan faktor yang dominan dan signifikan dalam menentukan respon daya sebar, serta berpengaruh signifikan dalam menentukan respon viskositas. Interaksi antara lama pencampuran dan suhu pencampuran berpengaruh signifikan terhadap respon viskositas, dan distribusi ukuran droplet. *Contour plot superimposed* menunjukkan area optimum dari daya sebar, dan viskositas pada level yang diteliti yaitu 5-7 cm dan 50-80 d.Pa.s.

Kata kunci: *cold cream* anti luka, ekstrak daun binahong, lama pencampuran, suhu pencampuran, desain faktorial.

## **ABSTRACT**

The aims of this research were to determine the dominant influence of mixing process on the physical properties and to determine the optimum mixing process area which has good physical properties and physical stabilities of cream.

This study was experimental research with two factors, mixing duration and mixing temperature, into two levels factorial design. The mixing process effects were investigated on the physical properties of the cream such as spreadability, and viscosity. The data were analyzed statistically using Yate's treatment with 95% level of confidence.

The results showed that the optimization was conducted based on the response of viscosity and spreadability. Mixing temperature was significant and dominant on determining spreadability and was significantly influenced on determining viscosity, whereas the temperature-mixing duration interaction was significant influency in the viscosity and droplet size. The superimposed contour plot showed the optimum area of spreadability and viscosity. On the level studied, with the criteria which are 5-7 cm, and 50-80 d.Pa.s respectively.

Keywords : wound healing cold cream, binahong leaves extract, mixing duration, temperature duration, factorial design.