

## INTISARI

Penelitian ini bertujuan untuk mengamati kerja faktor antara kecepatan putar *mixer* dan lama pencampuran dalam mempengaruhi respon sifat fisik dan stabilitas krim binahong serta untuk memperoleh area pencampuran optimum pada level yang diteliti.

Penelitian ini merupakan rancangan eksperimental murni menggunakan desain faktorial. Formula krim yang akan dilakukan optimasi proses adalah formula terbaik pada penelitian Paramita (2008). Dibuat 4 formula dengan masing-masing formula 6 replikasi, yaitu formula (1) level kecepatan putar *mixer* dan lama pencampuran rendah, (a) level kecepatan putar *mixer* tinggi, level lama pencampuran rendah, (b) level kecepatan putar *mixer* rendah, lama pencampuran tinggi, (ab) level kecepatan putar *mixer* dan lama pencampuran tinggi. Optimasi dilakukan terhadap sifat fisik krim meliputi daya sebar dan viskositas. Data diteliti secara statistik menggunakan uji F pada *Yate's treatment* dengan taraf kepercayaan 95%.

Hasil penelitian menunjukkan bahwa faktor lama pencampuran berpengaruh secara signifikan dan dominan dalam menentukan respon daya sebar. Untuk respon viskositas tidak ada dominansi faktor dikarenakan adanya interaksi yang signifikan antara kecepatan putar *mixer* dan lama pencampuran. Pada *superimposed contour plot* tidak ditemukan area optimum dari daya sebar dan viskositas.

**Kata kunci:** *cold cream*, ekstrak daun binahong, kecepatan putar *mixer*, lama pencampuran dan desain faktorial.

## ABSTRACT

This research aimed to investigate the dominant effect between mixing time and the speed of mixer on the physical characteristic and the stability of binahong cream and also to obtain the optimum mixing area to provide good quality of the cream.

This study was a pure experimental research by using factorial design. The cream formulation was generated from the Paramita's research (2008). Four formulas were made with 6 replications in each formula, formula (1) with low mixing time level and low mixing speed level; (a) low mixing time level, high mixing speed level; (b) high mixing time level, low mixing speed level; (ab) high mixing time level, high mixing speed level. The mixing process was optimized on their physical properties including spreadability and viscosity. The data were analyzed statistically using Yate's treatment with 95% level of confidence.

The results showed that the mixing time significantly and dominant affected the spreadability. However there was no dominant effect on the viscosity because of significant interaction occurred between mixing rate and mixing time. In this levels of study, the optimum area was not obtained.

**Keyword** : *cold cream*, binahong leaves extract, mixing rate, mixing time, and factorial design