

PENGARUH KONSENTRASI BUBUK CANGKANG TELUR AYAM TERHADAP SIFAT FISIKOKIMIA DAN ORGANOLEPTIK ES KRIM SANTAN KELAPA

(The Effect Of Chicken Eggshell Powder Concentration On Physicochemical and Organoleptic Properties Of Coconut Milk Ice Cream)

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ABSTRACT

This study aims to determine the effect of chicken eggshell powder concentration on the physicochemical and organoleptic properties of coconut milk ice cream. The method used in this study was an experimental method with an experimental design, used a completely randomized design (CRD) with single factor concentration of chicken eggshell powder with 6 (six) that were treatments, i.e. P0 (0%), P1 (0.5%), P2 (1%), P3 (1.5%), P4 (2%), P5 (2.5%). Each treatment was repeated 3 (three) times so that 18 experimental units were obtained. The parameters observed included calcium, total dissolved, overrun, resistance, color test using a colorimeter and organoleptic tests (color, taste, aroma mouthfeel, and overall). Observational data were tested by analysis of variances (ANOVA) at 5% significance level using Co-stat software. If there was a significant difference, a further test was carried out using the Honestly Significant Difference (HSD) at the 5% level. The results showed that the addition of chicken eggshell powder concentration gave significantly different results on calcium, fat, overrun, resistance, and organoleptic but did not have a significantly different effect on the color test using a colorimeter and the total dissolved of coconut milk ice cream. The treatment P5 (addition 2.5% of chicken eggshell powder) was the best treatment which produced 1.66% of calcium, 5.65% of fat and 33.36% of total dissolved. The treatment P1 (addition 0.5% of chicken eggshell powder) was the best treatment of physical parameters which produced 39.08% of overrun, 27.11 minutes of resistance, 95.19 of lightness, 75.13 of °Hue and the organoleptic quality (color, taste, aroma, mouthfeel, and overall) preferred by the panelists.

Keywords: *Chicken eggshell, ice cream, coconut milk.*

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi bubuk cangkang telur ayam terhadap sifat fisikokimia dan organoleptik es krim santan kelapa. Metode penelitian ini menggunakan metode eksperimental. Rancangan percobaan yaitu Rancangan Acak Lengkap (RAL) satu faktor konsentrasi bubuk cangkang telur ayam yang terdiri dari 6 (enam) perlakuan yaitu P0 (0%), P1 (0,5%), P2 (1%), P3 (1,5%), P4 (2%), P5 (2,5%) setiap perlakuan diulangi sebanyak 3 (tiga) kali sehingga didapat 18 unit percobaan. Parameter yang diamati meliputi overrun, resistensi, uji warna menggunakan *colorimeter*, uji kalsium, uji lemak, uji total padatan terlarut dan uji organoleptik (warna, rasa, aroma, *mouthfeel* dan *overall*). Data hasil pengamatan diuji dengan analisis keseragaman (ANOVA) pada taraf nyata 5% menggunakan *software Co-stat*. Apabila terdapat perbedaan nyata, maka dilakukan uji lanjut menggunakan uji Beda Nyata Jujur (BNJ) pada taraf 5%. Hasil penelitian menunjukkan bahwa penambahan konsentrasi bubuk cangkang telur ayam memberikan hasil yang berbeda nyata terhadap kadar kalsium, kadar lemak, *overrun*, resistensi dan organoleptik namun tidak memberikan pengaruh berbeda nyata pada uji warna menggunakan *colorimeter* dan uji total padatan terlarut es krim santan kelapa. Perlakuan P5 (konsentrasi bubuk cangkang telur ayam sebesar 2,5%) merupakan perlakuan terbaik yang menghasilkan kalsium sebesar 1,66%, kadar lemak 5,65% dan total padatan terlarut 33,36%. Perlakuan P1 (konsentrasi bubuk cangkang telur ayam sebesar 0,5%) merupakan perlakuan terbaik untuk *overrun* 39,08%, resistensi 27,11 menit, nilai kecerahan (*lightness*) 95,19 serta °Hue 75,13 dan organoleptik meliputi warna, rasa, aroma, *mouthfeel* dan *overall* (penerimaan keseluruhan) yaitu masih disukai dan diterima oleh panelis.

Kata Kunci: Cangkang telur ayam, es krim, santan kelapa.