

## **ABSTRACT**

### **UTILIZING ALOE VERA GEL AS ICE CREAM STABILIZER**

**By**

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The aims of the research was to obtain the concentration of aloe vera as an stabilizer for ice cream with sensory, physical, and chemical properties according to SNI No.01-3713-2018. The research arranged in a Complete Randomized Block Design (CRBD) with single factor consisting of eight treatments namely F1=0%, F2=5%, F3=10%, F4=15%, F5=20%, F6=25%, F7=30%, and F8=35% which are resulted from trial and error with three replications. Obtained data were analyzed with Bartlett test for the similarity of variance and Tuckey test for the addition of data, then it were analyzed by variance to determine the effect between treatments. If there is a significant effect, the data is further analyzed by the Least Significant Difference Test (LSD) at 5% level. The results showed that the best ice cream with aloe vera gel as stabilizer is F4 (15% aloe vera gel). Ice cream with F4 treatment produces tekstur score 4.15 (soft), color score 4.31 (likes), aroma score 4.01 (likes), taste score 4.11 (likes) and overall acceptance score 4.15 (likes), overrun 64.33%, melting rate 34.93 minutes, and emulsion stability

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97.30%. The water content of ice cream is 62.01%, protein content is 5.36%, fat content is 3.92% (had not qualified for SNI No.01-3713-2018) and ash content is 1.37%, and carbohydrate content (by different) is 27.34%.

Keywords: ice cream, stabilizer, aloe vera gel

## **ABSTRAK**

### **PEMANFAATAN GEL LIDAH BUAYA (*Aloe Vera* L.) SEBAGAI PENSTABIL ES KRIM**

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Tujuan penelitian adalah mendapatkan konsentrasi gel lidah buaya yang terbaik sebagai penstabil pada pembuatan es krim dengan sifat kimia, fisik, dan sensori sesuai SNI No.01-3713-2018. Penelitian dilakukan dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan faktor tunggal yang terdiri dari 8 taraf konsentrasi gel lidah buaya yaitu F1=0%, F2=5%, F3=10%, F4=15%, F5=20%, F6=25%, F7=30%, dan F8=35% yang didapatkan dari trial and error dengan 3 kali ulangan. Data yang diperoleh dianalisis kesamaan ragamnya dengan uji Bartlett dan kemenambahan data diuji dengan uji Tuckey, selanjutnya data dianalisis sidik ragam untuk mengetahui pengaruh antar perlakuan. Apabila terdapat pengaruh yang nyata, data dianalisis lebih lanjut dengan Uji Beda Nyata Terkecil (BNT) pada taraf 5%. Hasil penelitian menunjukkan bahwa es krim dengan penstabil gel lidah buaya terbaik adalah perlakuan F4 (15% gel lidah buaya). Es krim dengan perlakuan F4 menghasilkan karakteristik sensori tekstur dengan skor 4,15

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(lembut), warna 4,31 (suka), aroma 4,01 (suka), rasa 4,11 (suka), penerimaan keseluruhan 4,15 (suka), overrun 64,33%, kecepatan meleleh 34,93 menit dan stabilitas emulsi 97,30%. Kandungan kadar air sebesar 62,01%, kadar protein sebesar 5,36%, kadar lemak sebesar 3,92% (belum memenuhi syarat SNI No.01-3713-2018), kadar abu sebesar 1,37%, dan kadar karbohidrat (by difference) sebesar 27,34%.

Kata kunci: es krim, penstabil, gel lidah buaya