

ABSTRACT

THE EFFECT OF ADDING JACKFRUIT SEED STARCH (*Artocarpus heterophyllus*) ON THE PHYSICAL AND SENSORY CHARACTERISTICS OF GOAT MILK ICE CREAM

By

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Jackfruit seeds are a by-product of jackfruit fruit that can be processed into jackfruit seed starch. The starch content in jackfruit seeds is a polysaccharide that can be used as a stabilizer in ice cream. This study aims to determine the effect of adding jackfruit seed starch on the physical and sensory characteristics of goat milk ice cream. This study used a Complete Randomized Block Design (CRBD) method with 6 treatments and 4 replications. The treatments consisted of K (Addition of 0.5% gelatin), P1 (Addition of 0.5% jackfruit seed starch), P2 (Addition of 1% jackfruit seed starch), P3 (Addition of 1.5% jackfruit seed starch), P4 (Addition of 2% jackfruit seed starch), P5 (Addition of 2.5% jackfruit seed starch). The data obtained were analyzed statistically using the Barlett test and Tukey test, then continued with analysis of variance and the Honestly Significant Difference (HSD) test at the 5% level. The results showed that the addition of various concentrations of jackfruit seed starch significantly affected the overrun, melting speed, emulsion stability, texture and overall acceptance of goat milk ice cream. The best jackfruit seed starch addition treatment was P3 (Addition of jackfruit seed starch 1.5%) which resulted in an overrun value of 36.3%, melting speed of 20.75 minutes, emulsion stability of 78.1%, texture sensory scoring of 4.67% (very soft), hedonic texture sensory of 4.40 (like), taste of 4.88% (very like), aroma of 3.92% (like), color of 4.30 (like), overall acceptance of 4.78% (very like), protein content of 5.42%, fat content of 5.62% and total solids content of 37.34%.

Keywords: *jackfruit seed starch, ice cream, goat milk, stabilizer.*

ABSTRAK

PENGARUH PENAMBAHAN PATI BIJI NANGKA (*Artocarpus heterophyllus*) TERHADAP KARAKTERISTIK FISIK DAN SENSORI ES KRIM SUSU KAMBING

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Biji nangka merupakan hasil samping buah nangka yang dapat diolah menjadi pati biji nangka. Kandungan pati pada biji nangka merupakan polisakarida yang dapat dijadikan sebagai penstabil pada es krim. Penelitian ini bertujuan untuk mengenai pengaruh penambahan pati biji nangka terhadap karakteristik fisik dan sensori es krim susu kambing. Penelitian ini menggunakan metode Rancangan Acak Kelompok Lengkap (RAKL) dengan 6 perlakuan dan 4 ulangan. Perlakuan terdiri dari K (Penambahan gelatin 0,5%), P1 (Penambahan pati biji nangka 0,5%), P2 (Penambahan pati biji nangka 1%), P3 (Penambahan pati biji nangka 1,5%), P4 (Penambahan pati biji nangka 2%), P5 (Penambahan pati biji nangka 2,5%). Data yang diperoleh dianalisis secara statistik menggunakan uji Barlett dan uji Tukey lalu dilanjutkan dengan analisis ragam dan uji Beda Nyata Jujur (BNJ) pada taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan penambahan berbagai konsentrasi pati biji nangka berpengaruh nyata terhadap *overrun*, kecepatan leleh, stabilitas emulsi, tekstur dan penerimaan keseluruhan es krim susu kambing. Perlakuan penambahan pati biji nangka terbaik adalah P3 (Penambahan pati biji nangka 1,5%) yang menghasilkan nilai *overrun* 36,3%, kecepatan leleh 20,75 menit, stabilitas emulsi 78,1%, sensori skoring tekstur 4,67% (sangat lembut), sensori hedonik tekstur 4,40 (suka), rasa 4,88% (sangat suka), aroma 3,92% (suka), warna 4,30 (suka), penerimaan keseluruhan 4,78% (sangat suka), kadar protein 5,42%, kadar lemak 5,62% dan kadar total padatan 37,34%.

Kata kunci: pati biji nangka, es krim, susu kambing, penstabil.