

INTISARI

PENGARUH PENAMBAHAN BERBAGAI JENIS STABILIZER (TWEEN 20, ALGINAT, DAN CMC) DAN ANTIMIKROBA (KALIUM SORBAT, KALSIUM PROPIONAT DAN NATRIUM METABISULFIT) TERHADAP KUALITAS FISIK, KIMIA, DAN MIKROBIOLOGI SANTAN SELAMA PENYIMPANAN 24 JAM

Santan merupakan hasil ekstraksi dari endosperma kelapa yang berupa sistem emulsi. Tujuan penelitian ini adalah mengetahui pengaruh stabilizer dan antimikroba terhadap kualitas fisik, kimia, dan mikrobiologi pada santan. Dalam penelitian ini digunakan santan dengan penambahan stabilizer (tween 20 1%, alginat 1%, dan CMC 0,5%) dan penambahan antimikroba (kalium sorbat 500 ppm, kalsium propionat 500 ppm, dan natrium metabisulfit 250 ppm).

Hasil penelitian menunjukkan bahwa penambahan stabilizer dan antimikroba dapat mempengaruhi kualitas fisik, kimia, dan mikrobiologi pada santan. Berdasarkan kualitas fisik, santan dengan penambahan stabilizer (tween 20 1%, alginat 1%, dan CMC 0,5%) dapat meningkatkan stabilitas emulsi. Santan dengan CMC 0,5% memberikan stabilitas emulsi terbaik. Santan dengan penambahan alginat 1% dan CMC 0,5% dapat meningkatkan viskositas santan.

Berdasarkan kualitas kimia, santan dengan penambahan berbagai jenis antimikroba (kalium sorbat 500 ppm, kalsium propionat 500 ppm, dan natrium metabisulfit 250 ppm) dapat menghambat penurunan pH dan menghambat pembentukan asam lemak bebas dibandingkan dengan santan kontrol. Berdasarkan kualitas mikrobiologi, santan dengan berbagai jenis antimikroba (kalium sorbat 500 ppm, kalsium propionat 500 ppm, dan natrium metabisulfit 250 ppm) dapat menurunkan jumlah mikroba. Santan dengan natrium metabisulfit 250 ppm memberikan penghambatan mikroba terbaik.

Kata kunci: antimikroba, santan, santan awet, stabilizer

ABSTRACT

THE EFFECT VARIOUS TYPE OF STABILIZERS (TWEEN 20, ALGINATE, AND CMC) AND ANTIMICROBES (POTTASIMUM SORBATE, CALCIUM PROPIONATE AND SODIUM METABISULFITE) ADDED ON THE PHYSICAL, CHEMICAL, AND MICROBIOLOGY QUALITY OF COCONUT MILK THROUGH 24 HOURS STORAGE

Coconut milk is an emulsion products extracted from coconut endosperm. The purpose of this study was to determine the effect of the stabilizer and antimicrobial on the physical, chemical, and microbiological properties of coconut milk. This study used coconut milk with the addition of stabilizer (tween 20 1%, alginate 1%, and CMC 0,5%) and the addition of antimicrobials (potassium sorbate 500 ppm, calcium propionate 500 ppm, and sodium metabisulfite 250 ppm).

The results showed that the addition of stabilizers and antimicrobials may affect the characteristics of the physical, chemical, and microbiological coconut milk. Based on the physical characteristics, coconut milk with the addition of stabilizer (tween 1%, alginate 1% and CMC 0,5%) and coconut milk with the addition of sodium metabisulfite 500 ppm as antimicrobe might increase the stability of the emulsion. Coconut milk with the addition of CMC 0,5% had the best emulsion stability. Coconut milk with the addition of 1% alginate and 0,5% CMC could increase the viscosity of milk.

Based on the chemical properties, the coconut milk with the addition of various types of antimicrobials (500 ppm potassium sorbate, calcium propionate 500 ppm, and 250 ppm sodium metabisulfite) might inhibited pH decreasing and inhibit the formation of free fatty acids compared with the control milk. Based on the microbiology properties, coconut milk with various types of antimicrobials (potassium sorbate 500 ppm, calcium propionate 500 ppm, and sodium metabisulfite 250 ppm) could decrease the number of microbes. Coconut milk with 250 ppm of sodium metabisulfite provided the best microbial inhibition.

Keywords: antimicrobial, coconut milk, coconut milk storage, stabilizer
