

ABSTRACT

Anjas Septiadi. B.1510181. Quality Characteristics of Pasteurized Milk With Addition of Cardamom Extract (*Amomum cardamomum*) During Low Temperature Storage. Supervised by Sri Rejeki Retna Pertiwi and Tiana Fitrilia.

Cardamom is an aromatic herbal plant that contains essential oils, saponins, flavonoids, and polyphenols. This research was conducted to determine the effect of adding cardamom extract during low temperature storage on the quality characteristics of pasteurized milk. The research design used was a two-factor Completely Randomized Design (CRD), namely the comparison of the concentration of cardamom extract with four treatment levels (0.5%, 1%, 1.5%, 2%) and storage time with three treatment levels (3 days, 6 days, 9 days). Product analysis includes microbiological test of TPC (*Total Plate Count*), protein test, pH test, and hedonic rating test. Research data were analyzed using variance (ANOVA). The addition of cardamom extract can reduce the number of microbes, protein content and pH value. Meanwhile, storage time can increase the number of microbes, protein content, and decrease the pH value. The interaction between the addition of cardamom extract and storage time significantly affected the number of microbes, protein content and pH value. The selected product with a concentration of 0.5% cardamom extract at 6 days of storage, has a protein content of 2.8% and a TPC (*Total Plate Count*) value of 2.94×10^3 cfu/mL. The hedonic rating test of the selected product for the taste parameter, the panelists rated 34.4% somewhat disliked it, the aroma parameter, the panelists rated 22.6% as neutral and the overall panelists rated 48.4% somewhat disliked it.

Keywords: pasteurized milk, cardamom extract, microbes, protein.

ABSTRAK

Anjas Septiadi. B.1510181. Karakteristik Mutu Susu Pasteurisasi Dengan Penambahan Ekstrak Kapulaga (*Amomum cardamomum*) Selama Penyimpanan Suhu Rendah. Skripsi. Dibawah bimbingan Sri Rejeki Retna Pertiwi dan Tiana Fitrilia.

Kapulaga merupakan tanaman herbal aromatik yang mengandung minyak atsiri, saponin, flavonoida, dan polifenol. Penelitian ini dilakukan untuk mengetahui pengaruh penambahan ekstrak kapulaga selama penyimpanan dalam suhu rendah terhadap karakteristik mutu susu pasteurisasi. Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) dua faktor yaitu perbandingan konsentrasi ekstrak kapulaga dengan empat taraf perlakuan (0,5%, 1%, 1,5%, 2%) dan lama penyimpanan dengan tiga taraf perlakuan (3 hari, 6 hari, 9 hari). Analisis produk meliputi uji mikrobiologi TPC (*Total Plate Count*), uji protein, uji pH, dan uji rating hedonik. Data penelitian dianalisis menggunakan sidik ragam (ANOVA). Penambahan ekstrak kapulaga dapat menurunkan jumlah mikroba, kadar protein dan nilai pH. Sedangkan lama penyimpanan dapat meningkatkan jumlah mikroba, kadar protein, dan menurunkan nilai pH. Interaksi antara penambahan ekstrak kapulaga dan lama penyimpanan berpengaruh nyata pada jumlah mikroba, kadar protein dan nilai pH. Produk terpilih dengan konsentrasi ekstrak kapulaga 0,5% pada lama penyimpanan 6 hari, memiliki kadar protein 2,8% dan nilai TPC (*Total Plate Count*) $2,94 \times 10^3$ cfu/mL. Uji rating hedonik produk terpilih untuk parameter rasa panelis menilai 34,4% agak tidak suka, parameter aroma panelis menilai 22,6% netral dan *overall* panelis menilai 48,4% agak tidak suka.

Kata kunci : susu pasteurisasi, ekstrak kapulaga, mikroba, protein.

