

KARAKTERISTIK FISIKO-KIMIA DAN DAYA TERIMA SABUN KRIM SUSU KAMBING PADA LAMA PENYIMPANAN BERBEDA

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INTISARI

Penelitian ini bertujuan untuk mengetahui karakteristik fisiko-kimia dan daya terima sabun krim susu kambing pada lama penyimpanan berbeda (0 dan 30 hari). Pembuatan sabun dilakukan dengan metode *cold process* yang menggunakan bahan baku susu kambing Peranakan Etawa dan minyak kelapa disimpan pada suhu ruang 25°C dengan lama penyimpanan 0 dan 30 hari. Pengujian sabun dilakukan sebanyak 4 replikasi dengan duplo pengujian sampel. Pengujian bahan baku susu segar meliputi uji alkohol, berat jenis, kadar air, dan kadar lemak susu dan pengujian krim susu meliputi kadar lemak total dan kadar air di analisis secara deskriptif. Pengujian karakteristik fisik sabun (uji kekerasan dan stabilitas busa) dan karakteristik kimia sabun (uji pH, bilangan penyabunan, bilangan peroksida, dan asam lemak bebas) di analisis dengan menggunakan analisis variansi *Paired T-Test*. Pengujian daya terima sabun meliputi aroma, tekstur, dan warna sabun dianalisis menggunakan *Kruskal-Wallis Test*. Hasil penelitian menunjukkan bahwa bahan baku susu kambing segar memiliki berat jenis 1,028 kg/m³, kadar air 84,25%, kadar lemak 3,025%. Sabun pada penyimpanan 30 hari menunjukkan hasil yang sesuai dengan ketentuan SNI. Sabun pada penyimpanan 30 hari memiliki tingkat kekerasan yang lebih tinggi (7,22±2,80 kg/cm²), busa sabun lebih stabil (7,25±4,21%), nilai pH lebih rendah 11,05±0,38, bilangan peroksida lebih rendah (4,00±3,04 meq/kg), bilangan penyabunan lebih tinggi (214,30±6,64 mg KOH/g) dan asam lemak bebas lebih banyak (0,21±0,01%) dibandingkan dengan sabun penyimpanan 0 hari. Daya terima sabun dengan parameter kesukaan warna dan tekstur mengalami penurunan dan untuk parameter kesukaan aroma sabun semakin meningkat pada sabun dengan penyimpanan 30 hari.

Kata Kunci : Susu kambing, Sabun krim susu, Kualitas fisik, Kualitas kimia, Daya terima

PHYSICO-CHEMICAL CHARATERISTICS AND ACCEPTABILITY OF GOAT'S CREAM SOAP AT DIFFERENT STORAGE TIMES

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ABSTRACT

This research aimed to observe the physico-chemical characteristics and acceptability of goat's cream soap at different storage times (0 and 30 days). The study was using cold process method with goat's cream (Peranakan Etawa) and coconut oil as the main materials. The goat's milk cream soap stored at room temperature of 25°C for 0 and 30 days. Physico-chemical and acceptability tests was carried out in 4 replications with duplicate sample testing. Raw milk materials including alhocol test, density, water content, milk fat content also milk cream were then analyzed by descriptively. The physico (hardness and foam ability) and chemical characteristics of soap (pH, saponification value, peroxide value, and free fatty acids) were determined by analysis of variance Paired T-Test. Acceptability tests obtained were then analyzed by non-parametric Kruskall Wallis Test. The results showed that goat's milk had 1,028 kg/m³ of density, 84,25 % of water content, and 3,025% of fat content. Goat's cream soap according the storage of 30 days was in accordance with provision of SNI. Soap with 30 days of storage had a higher hardness (7,22±2,80 kg/cm²), more stable foam (7,25±4,21%), lower pH value (11,05±0,38), lower peroxide value (4,00±3,04 meq/kg), higher saponification value (214,30±6,64), and higher free fatty acids (0,21±0,01%) than soap with 0 day of storage. The acceptability test with 30 days of storage showed that the soap's colour and texture was decreasing during storage, but after odor of soap had higher results from panelist.

Keyword : Goat milk, Milk cream soap, Physico properties, Chemical properties, Acceptability