

KUALITAS KIMIA MENTEGA SUSU KAMBING PERANAKAN *AFRICAN DWARF* (PAD) DAN PERANAKAN ETTAWA (PE) DENGAN LAMA PENYIMPANAN YANG BERBEDA

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INTISARI

Penelitian ini bertujuan untuk mengetahui kualitas kimia mentega yang terbuat dari lemak susu kambing Peranakan *African Dwarf* (PAD) dan Peranakan Ettawa (PE) selama penyimpanan 40 hari dalam refrigerator. Penelitian ini menggunakan 3 replikasi dan 2 kali pengulangan uji sampel. Uji bahan baku susu segar meliputi : uji kadar air, uji kadar lemak dan uji berat jenis susu. Pengujian mentega dilakukan pada hari ke 0, 20 dan 40. Uji komposisi bahan baku susu segar, krim dan komposisi mentega dianalisis secara deskriptif. Kualitas kimia mentega selama penyimpanan (bilangan peroksida, FFA, dan pH) dianalisis secara faktorial (3x2). Hasil penelitian menunjukkan mentega susu kambing PAD memiliki kadar lemak lebih tinggi dari pada mentega susu kambing PE yaitu masing-masing untuk kambing PE $82,41 \pm 0,38$ dan mentega kambing PAD $82,67 \pm 0,81$. Mentega susu kambing PAD dan PE memiliki nilai bilangan peroksida yang meningkat saat penyimpanan hari ke 20 ($P < 0,05$). Kadar *Free Fatty Acid* (FFA) kedua mentega mengalami peningkatan, sedangkan nilai pH menurun secara signifikan ($P < 0,05$) selama penyimpanan. Kesimpulan secara umum menunjukkan penyimpanan sampai dengan 40 hari telah menurunkan kualitas mentega, namun masih tergolong lebih baik daripada standar umum mentega tanpa penggaraman. Mentega yang terbuat dari susu kambing PE memiliki kualitas kimia yang lebih baik selama penyimpanan.

Kata kunci : Susu kambing, Peranakan *African Dwarf*, Peranakan Ettawa, Mentega, Kualitas Kimia.

Quality Chemical of African Dwarf Crossbreed and Ettawa Crossbreed Goat Milk's Butter with Different Storage Time

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ABSTRACT

This study aimed to determine the chemical quality of butter made of the milk fat of African Dwarf Crossbreed and Ettawa Crossbreed goats during 40 days of storage in the refrigerator. This study used 3 replications and 2 sample test repetitions. Tests for fresh milk raw materials include test for water content, test for fat content and test for specific gravity of milk. Butter testing was carried out on days 0, 20 and 40. Test composition of fresh milk, cream and butter composition were analyzed descriptively. The chemical quality of butter during storage (peroxide number, FFA, and pH) was analyzed by factorial (3x2). The results showed that PAD goat butter had a higher fat content than PE goat butter, namely PE 82.41 ± 0.38 goat butter and PAD goat butter 82.67 ± 0.81 respectively. PAD and PE goat's milk butter had a peroxide number value that increased on the 20th day of storage ($P < 0.05$). Free Fatty Acid (FFA) content of both butters increased, while the pH value decreased significantly ($P < 0.05$) during storage. The general conclusion shows that storage for up to 40 days has reduced the quality of butter, but it is still better than the general standard of unsalted butter. Butter made of PE goat's milk has better chemical quality during storage.

Keywords: Goat milk, African Dwarf breed, Ettawa breed, Butter, Chemical Quality