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Kualitas Fisiko-Kimia, Mikrobiologis, dan Sensoris Keju Segar dengan Koagulan Sari Buah Lemon Selama Penyimpanan
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INTISARI

Penelitian ini bertujuan untuk mengetahui kualitas fisiko-kimia, mikrobiologis, dan sensoris keju segar dengan koagulan sari buah lemon selama penyimpanan. Perlakuan keju segar menggunakan level koagulan sari buah lemon (8, 10, dan 12%) dan lama penyimpanan keju (0, 7, dan 14 hari) pada suhu 4°C. Pengujian kualitas keju meliputi rendemen, uji kadar air, tekstur, pH, keasaman, *Free Fatty Acid* (FFA), *Total Plate Count* (TPC), dan sensoris (meliputi warna, tekstur, rasa, dan daya terima). Data yang diperoleh dianalisis menggunakan two ways ANOVA, apabila terdapat perbedaan yang nyata, dilanjutkan uji *Duncan's New Multiple Range Test* (DMRT). Uji kualitas sensoris dianalisis dengan analisis Kruskal Wallis. Hasil penelitian menunjukkan bahwa perlakuan penambahan koagulan sari buah lemon 8%, 10%, dan 12% berpengaruh nyata ($P<0,05$) terhadap nilai rendemen dan keasaman keju segar. Rerata nilai rendemen keju segar dengan koagulan sari buah lemon 8%,10%, dan 12% berturut-turut adalah 8,82±1,48; 11,53±1,37; dan 11,55±0,86%. Rerata nilai keasaman keju segar dengan koagulan sari buah lemon 8%, 10%, dan 12% berturut-turut adalah 1,59±0,22; 1,62±0,26; dan 1,79±0,19%. Perlakuan lama penyimpanan berpengaruh nyata ($P<0,05$) terhadap nilai kadar air, tekstur, pH, *Free Fatty Acid* (FFA), *Total Plate Count* (TPC), dan sensoris keju segar. Rerata nilai kadar air, tekstur, pH, *Free Fatty Acid* (FFA), *Total Plate Count* (TPC), dan sensoris keju segar berturut-turut adalah 51,59±2,64%, 5,00±1,55 N; 4,38±0,24; 5,15±0,82%; 8,22±4,24 $x10^5$ CFU/g; dan panelis menyatakan suka. Kesimpulannya, keju segar terbaik keju pada perlakuan 12% sari buah lemon sebelum penyimpanan ditinjau dari nilai sensoris.

Kata kunci : Sari lemon, koagulan, keju, kualitas fisiko-kimia, mikrobiologis, sensoris.

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Physico-Chemical, Microbiological, and Sensorial Qualities of Fresh Cheese with Lemon Juice Coagulant During Storage

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ABSTRACT

This study aimed to determine the physico-chemical, microbiological, and sensorial qualities of fresh cheese with lemon juice coagulant during storage. Fresh cheese treatment uses lemon juice coagulant levels (8, 10, and 12%) and cheese storage time (0, 7, and 14 days) at 4°C. Cheese quality testing includes yield, moisture content, texture, pH, acidity, Free Fatty Acid (FFA), Total Plate Count (TPC), and sensory (including color, texture, taste, and acceptability). The data obtained were analyzed using two ways ANOVA, if there was a noticeable difference, followed by Duncan's New Multiple Range Test (DMRT). Sensory quality tests were analyzed by Kruskal Wallis analysis. The results showed that the treatment of adding lemon juice coagulants 8%, 10%, and 12% had a real effect ($P<0.05$) on the yield value and acidity of fresh cheese. The average yield value of fresh cheese with lemon juice coagulant of 8%,10%, and 12% respectively was 8.82±1.48; 11.53±1.37; and 11.55±0.86%. The average acidity value of fresh cheese with lemon juice coagulants of 8%, 10%, and 12% was 1.59±0.22 respectively; 1.62±0.26; and 1.79±0.19%. Long storage treatment had a significant effect ($P<0.05$) on the value of moisture content, texture, pH, Free Fatty Acid (FFA), Total Plate Count (TPC), and sensory fresh cheese. The average value of moisture content, texture, pH, Free Fatty Acid (FFA), Total Plate Count (TPC), and sensory fresh cheese was 51.59±2.64%, 5.00±1.55 N, respectively; 4.38±0.24; 5.15±0.82%; 8.22±4.24 x105 CFU/g; and panelists expressed likes. In conclusion, the best fresh cheese cheese at 12% lemon juice treatment before storage was reviewed from sensory value.

Keywords : Lemon juice, coagulant, cheese, physico-chemical quality, microbiological quality, sensorial quality