

PENGARUH PENAMBAHAN JENIS HIDROKOLOID DAN LAMA PENYIMPANAN BERBEDA PADA SUHU DINGIN (4-8°C) TERHADAP KUALITAS *CONCENTRATED YOGURT* SUSU SAPI

ABSTRAK

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Penelitian dengan judul “Pengaruh Penambahan Jenis Hidrokoloid dan Lama Penyimpanan Berbeda pada Suhu Dingin (4-8°C) terhadap Kualitas *Concentrated Yogurt* Susu Sapi” dilakukan untuk menganalisis kualitas *concentrated yogurt* susu sapi dengan perbedaan jenis hidrokoloid dan lama penyimpanan. Materi penelitian *concentrated yogurt* menggunakan alat dan bahan. Alat yang digunakan yaitu seperangkat alat membuat *concentrated yogurt* dan pengukuran variabel. Penelitian dilakukan dengan membuat *yogurt* dari susu sapi yang diproses lanjut menjadi *concentrated yogurt* dengan 2 faktor perlakuan dan 3 kali ulangan. Faktor pertama yaitu jenis hidrokoloid (tanpa penambahan hidrokoloid, 1% pektin dan 1% gelatin) dan faktor kedua yaitu lama penyimpanan (1, 5 dan 9 hari). Variabel yang diukur yaitu potensial hidrogen (pH), total asam tertitrasi, total bakteri asam laktat, kadar air, total padatan, sineresis, tekstur dan warna. Metode penelitian adalah metode eksperimental dengan Rancangan Acak Lengkap (RAL) pola faktorial. Data yang diperoleh selanjutnya dianalisis menggunakan analisis variansi dan dilakukan uji lanjut Beda Nyata Jujur (BNJ). Hasil analisis menunjukkan faktor jenis hidrokoloid berpengaruh sangat nyata ($P < 0,01$) terhadap pH, total asam tertitrasi, total bakteri asam laktat, kadar air, total padatan, sineresis, tekstur dan warna. Lama penyimpanan berpengaruh nyata ($P < 0,05$) terhadap pH, total asam tertitrasi, total bakteri asam laktat, *yellowness* dan *chroma*. Hasil analisis menunjukkan interaksi berpengaruh nyata ($P < 0,05$) terhadap warna. Kesimpulan dari penelitian ini yaitu jenis hidrokoloid berbeda *concentrated yogurt* susu sapi dapat menyebabkan perbedaan nilai pH, total asam tertitrasi, total bakteri asam laktat, kadar air, total padatan, sineresis, tekstur dan warna sedangkan lama penyimpanan berbeda pada suhu dingin (4-8°C) menghasilkan kadar air, total padatan, sineresis dan tekstur yang relatif sama.

Kata Kunci : *Concentrated yogurt*, Susu, Sapi, Hidrokoloid, Lama Penyimpanan

THE EFFECT OF ADDITION HYDROCOLLOIDS TYPE AND DIFFERENT STORAGE TIME AT COLD TEMPERATURES (4-8°C) ON THE QUALITY OF CONCENTRATED YOGURT COW'S MILK

ABSTRACT

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The study entitled "The Effect of Addition Hydrocolloids Type and Differences Storage Time at Cold Temperatures (4-8°C) on the Quality of Concentrated Yogurt Cow's Milk" was conducted to analyze the quality of Concentrated Yogurt Cow's Milk with various types of hydrocolloids and storage time. Research materials concentrated yogurt cow's milk using tools and materials. The tools used are a set of tools for making concentrated yogurt and variable measurements. The research was conducted by making yogurt from cow's milk which was then processed into yogurt concentrated with 2 treatment factors and 3 replications. The first factor is the type of hydrocolloid (without the addition of hydrocolloid, 1% pectin and 1% gelatin) and the second factor is storage time (1, 5 and 9 days). The variables measured were hydrogen potential (pH), titrable acidity, total lactic acid bacteria, water content, total solids, syneresis, texture and color. The research method is an experimental method with a completely randomized design (CRD) with a factorial pattern. The data obtained were then analyzed using analysis of variance and further tested for Honest Significant Difference (BNJ). The results the type of hydrocolloid had a very significant effect ($P < 0.01$) on pH, titrable acidity, total lactic acid bacteria, water content, total solids, syneresis, texture and color. Storage time had a significant effect ($P < 0.05$) on pH, titrable acidity, total lactic acid bacteria, yellowness and chroma. Interaction had significant effect ($P < 0,05$) on color. The conclusion of this study is that different types of concentrated hydrocolloids of cow's milk yogurt can cause differences in pH values, titrable acidity, total lactic acid bacteria, water content, total solids, syneresis, texture and color while different storage times at cold temperatures (4-8°C). Resulted in relatively the same moisture content, total solids, syneresis and texture.

Keywords : *Concentrated yogurt*, Milk, Cow, Hydrocolloids, Storage