

## **PENGARUH SUHU PENYIMPANAN TERHADAP KUALITAS KIMIA SUSU PASTEURISASI RENDAH LEMAK**

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### **INTISARI**

Selama penyimpanan, produk susu mengalami kerusakan sehingga perlu diteliti kualitasnya dengan berbagai cara. Penelitian ini bertujuan untuk mengetahui pengaruh suhu penyimpanan terhadap kualitas kimia susu pasteurisasi rendah lemak. Susu pasteurisasi rendah lemak produksi Industri Kecil Menengah Indolait Kecamatan Mlati, Kabupaten Sleman, Yogyakarta digunakan dalam penelitian ini. Pengujian sampel meliputi nilai pH, kadar air, kadar keasaman, kadar abu, kadar Brix, kadar protein, kadar lemak, dan kadar asam organik. Susu pasteurisasi rendah lemak disimpan pada suhu 4°C dan 15°C. Pengujian dilakukan pada hari ke-0, 7, 14, dan 21. Data penelitian yang didapat diolah dengan menggunakan analisis pola faktorial 2x4 (suhu penyimpanan x lama penyimpanan). Hasil uji akhir nilai pH, kadar air, kadar keasaman, kadar abu, kadar Brix, kadar protein, kadar lemak, dan kadar asam organik pada penyimpanan 4°C berturut-turut adalah 6,65; 89,45%; 0,29%; 0,67%; 9,6°Brix; 2,66%; 0,2%; dan 420 ppm. Hasil uji akhir nilai pH, kadar air, kadar keasaman, kadar abu, kadar Brix, kadar protein, kadar lemak, dan kadar asam organik pada penyimpanan 15°C berturut-turut adalah 4,75; 89,45%; 0,65%; 0,64%; 6,95 °Brix; 2,03%; 0,15%; dan 433ppm. Susu pasteurisasi rendah lemak pada penyimpanan 4°C masih baik dikonsumsi sampai 14 hari. Susu pasteurisasi rendah lemak penyimpanan 15°C sudah rusak pada hari ke-7.

Kata kunci: Susu pasteurisasi rendah lemak, Kualitas kimia, Penyimpanan

## **THE EFFECT OF STORAGE TEMPERATURE ON CHEMICAL QUALITY OF LOW-FAT PASTEURIZED MILK**

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### **ABSTRACT**

The storage process makes dairy products damaged, so the quality needs to be investigated in various ways. This study aimed to determine the effect of storage temperature on the shelf life of low-fat pasteurized milk regarded from its chemical quality. This study used low-fat pasteurized milk that produced by Indolait which are produced in the Mlati District, Sleman Regency, Yogyakarta. Testing samples included pH value, water level, acidity, the level of ash, Brix, protein level, fat level, and low fat pasteurized organic acids level in low-fat pasteurized milk. They stored at different level of temperatures, 4°C as compared to those of 15°C, during 21 days. Testing on low-fat pasteurized milk was carried out on days 0, 7, 14, and 21. The research data obtained was processed using factorial 2x4 analysis (storage temperature x storage time). The final test results for pH value, water level, acidity, the level of ash, Brix, protein level, fat level, and low fat pasteurized organic acids level at 4°C storage temperature respectively 6.65; 89.45%; 0.29%; 0.67%; 9.6°Brix; 2.66%; 0.2%; and 420 ppm, while for 15°C storage temperature were 4.75; 89.45%; 0.65%; 0.64%; 6,95 °Brix; 2.03%; 0,15%; and 433ppm respectively. Low fat pasteurized milk at 4°C storage temperature was still good for up to 14 days, while at 15°C storage low-fat pasteurized milk was damaged on the 7<sup>th</sup> day.

**Keywords:** Pasteurized low fat milk, Chemical quality, Storage



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