KARAKTERISTIK FISIK DAN SENSORIS KEJU *CHEDDAR* PROBIOTIK DENGAN VARIASI SUHU PEMANASAN SUSU

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Produk pangan olahan berbasis susu mulai banyak dikembangkan menjadi pangan fungsional. Keju cheddar berpotensi menjadi pangan fungsional sebagai produk keju probiotik dengan penambahan bakteri probiotik *Lactiplantibacillus plantarum* Dad-13 dan *Streptoccocus thermophilus* Dad-11. Perlakuan suhu pemanasan susu sebagai bahan baku keju perlu diperhatikan karena dapat memengaruhi kualitas keju yang dihasilkkan. Suhu pemanasan susu yang rendah dapat menimbulkan risiko keamanan mikrobia produk sedangkan suhu yang terlalu tinggi menyebabkan perubahan warna, rasa dan tekstur, serta nilai gizi keju. Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan suhu pemanasan susu yang berbeda terhadap kualitas fisik dan sensori keju cheddar probiotik sehingga dapat diketahui suhu pemanasan susu yang efektif agar produk tetap aman sebagai camilan anak-anak tetapi masih dapat memenuhi penerimaan konsumen.

Analisis karakteristik fisik dilakukan melalui pengujian di laboratorium sedangkan analisis sensori dilakukan melalui uji RATA, *acceptance test,* dan JAR dengan melibatkan 40 wanita yang menggunakan keju sebagai MPASI untuk menjadi responden. Hasil penelitian menunjukkan bahwa sampel keju cheddar probiotik dengan suhu pemanasan susu pasteurisasi (65C) memiliki waktu penurunan pH lebih lama, rendemen lebih tinggi, whey lebih rendah; nilai *hardness, chewiness*, dan *yellowness* lebih rendah dibanding sampel dengan suhu pemanasan susu termiasai (32C). Selain itu, sampel keju cheddar probiotik dengan suhu pemansan susu pasteurisasi memiliki tingkat kesukaan yang lebih tinggi terhadap seluruh atribut sensori yang diuji dan lebih banyak intensitas atribut pada sampel yang sudah ideal bagi panelis.

Kata kunci : keju cheddar, probiotik, suhu pemanasan susu, karakteristik sensori, karakteristik fisik, *acceptance test,* RATA, JAR

PHYSICAL AND SENSORY CHARACTERISTICS OF PROBIOTIC CHEDDAR CHEESE WITH VARIATIONS OF HEATING MILK TEMPERATURE

ABSTRACT

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Milk-based processed food products are starting to be developed into functional foods. Cheddar cheese has the potential to become a functional food as a probiotic cheese product with the addition of probiotic bacteria *Lactiplantibacillus plantarum* Dad-13 and *Streptococcus thermophilus* Dad-11. It is important to pay attention to the heating temperature of milk as a raw material for cheese because it can affect the quality of the cheese produced. Low heating temperature for milk can pose a risk to the microbial safety of the product while using a temperature that is too high causes changes in the color, taste, and texture, as well as the nutritional value of the cheese. This research aims to determine the effect of using different milk heating temperatures on the physical and sensory quality of probiotic cheddar cheese so that the effective milk heating temperature can be identified so that the product remains safe as a children's snack but can still meet consumer acceptance.

Analysis of physical characteristics was carried out through laboratory testing, while sensory analysis was carried out through RATA tests, acceptance tests, and JAR involving 40 women who used cheese as MPASI to become respondents. The results showed that probiotic cheddar cheese samples with pasteurized milk heating temperature (65C) had a longer pH reduction time, higher yield, and lower whey; The hardness, chewiness, and yellowness values were lower than samples with a temperature of heating the milk (32C). In addition, the probiotic cheddar cheese sample with pasteurized milk heating temperature had a higher level of liking for all the sensory attributes tested and more attribute intensity in the sample which was already ideal for the panelists.

Keywords: cheddar cheese, probiotics, milk heating temperature, sensory characteristics, physical characteristics, acceptance test, RATA, JAR