PENGARUH VARIASI KADAR GARAM TERHADAP KUALITAS MIKROBIOLOGIS KEJU *CHEDDAR* PROBIOTIK

ABSTRAK

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Penelitian ini bertujuan untuk mengetahui *yield*, whey, pH, kadar air, kadar garam, dan cemaran mikrobiologis berupa *Enterobacteriaceae* dan Kapang/Khamir pada keju *cheddar* probiotik dengan kultur *starter* lokal *Lactiplantibacillus plantarum subsp. plantarum* Dad-13 dan *Streptococcus thermophillus* Dad-11 dengan variasi kadar garam 1% dan 2%. Dilakukan perhitungan *material balance* dan *yield* selama proses pembuatan keju *cheddar*, pengukuran pH, kadar air, dan kadar garam, serta pengujian cemaran mikrobiologis berupa *Enterobacteriaceae* dan kapang/khamir dilakukan pada keju sebelum dan sesudah pemeraman minggu ke-8. Hasil penelitian menunjukkan bahwa keju dengan kadar garam 1% menghasilkan yield (9,15%) yang lebih besar dibandingkan dengan kadar garam 2% (8,84%). Keju dengan kadar garam 1% dan 2% menghasilkan yield berkisar antara 8,84% - 9,15%, volume whey berkisar antara 12,01 – 14,08 liter, kadar air berkisar antara 44,91 – 45,93%, pH berkisar antara 5,28 – 5,32. Kadar garam yang dihasilkan pada keju *cheddar* setelah pemeraman minggu ke-8 lebih sedikit dari persentase garam yang ditambahkan pada curd, yaitu sebesar 0,81% pada kadar garam 1% dan 1,65% pada kadar garam 2%. Selain itu, keju dengan kadar garam 2% mampu menekan jumlah cemaran mikrobiologis *Enterobacteriaceae* (4,7 log CFU/g) dan Kapang/Khamir (3,6 log CFU/g) setelah pemeraman minggu ke-8 dibandingkan dengan keju dengan kadar garam 1% dengan jumlah *Enterobacteriaceae* (5,42 log CFU/g) dan Kapang/Khamir (4,45 log CFU/g).

Kata Kunci : Keju Cheddar, Probiotik, Garam, Yield, Cemaran Mikrobiologi

THE EFFECT OF SALT CONTENT VARIATION ON THE MICROBIOLOGICAL QUALITY OF PROBIOTIC *CHEDDAR* CHEESE

ABSTRACT

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This research aims to determine yield, whey, pH, moisture content, salt content, and microbiological contamination of *Enterobacteriaceae* and Yeast/Mold in probiotic *cheddar* cheese made using local starter cultures *Lactiplantibacillus plantarum subsp. plantarum Dad-13* and *Streptococcus thermophilus Dad-11* with variations in salt content of 1% and 2%. Material balance and yield calculations were carried out during the *cheddar* cheese production process, pH measurement, moisture and salt content analysis, and microbiological contamination tests for *Enterobacteriaceae* and yeast/mold were conducted on the cheese before and after 8th week of aging. Result showed that cheese made with 1% and 2% salt content produced yield ranged between 8,84 – 9,15%, whey volume ranged between 12,01 – 14,08 liter, moisture content ranged between 44,91 – 45,93%, pH ranged between 5,28 – 5,32. The salt content produced in *cheddar* cheese after the 8th week aging is lower than the percentage of salt added to the curd, specifically 0.81% for 1% salt content and 1.65% for 2% salt content. Furthermore, cheese with 2% salt content is capable for reducing the amount of microbiological contamination of *Enterobacteriaceae* (4.7 log CFU/g) and yeast/mold (3.6 log CFU/g) after 8th week aging compared to cheese with 1% salt content, which showed quantities of *Enterobacteriaceae* (5.42 log CFU/g) and yeast/mold (4.45 log CFU/g).

Keywords : Cheddar Cheese, Probiotic, Salt, Yield, Microbiology Contaminant