KUALITAS FISIKO-KIMIA DAN CITA RASA KEJU FETA DENGAN MENGGUNAKAN KULTUR TUNGGAL (*Streptococcus thermopillus*) DAN CAMPURAN (*Lactobacillus acidophilus*, *Bifidobacterium longum*, DAN *Lactobacillus casei*)

Selysia Marta

13/352589/PT/06627

INTISARI

Tujuan dari penelitian ini adalah untuk melihat potensi penggantian pemakaian bakteri *Streptococcus thermopilus* dalam pembuatan keju Feta dengan bakteri lain, khususnya bakteri campuran yaitu *Lactobacillus acidhopilus, Bifidobacterium longum,* dan *Lactobacillus casei.* Keju Feta ST (FST) dan keju Feta ABC (FABC) disimpan selama 30 hari dan diamati perubahan fisika-kimia pada penyimpanan hari ke-0, 15, dan 30. Parameter yang diamati adalah rendemen (hari ke-0) serta dilakukan pengujian kualitas kimia meliputi; kadar air, kadar abu, pH, protein kasar, dan protein Lowry. Pengujian kualitas fisik meliputi kekerasan keju, citarasa, tekstur, dan daya terima. Data kadar air, abu, pH, protein kasar dan kekerasan keju dianalisa dengan Rancangan Acak Lengkap Pola Faktorial, dan perbedaan rata-rata diuji dengan *Duncan's New Multiple Range Test* (DMRT), protein Lowry dianalisa dengan *Independent Sampel T-test*, daya terima dianalisa dengan Kruskal-Wallis H, sedangkan citarasa dan tekstur dianalisa secara deskriptif. Hasil menunjukkan bahwa rendemen keju tertinggi adalah keju FST 53,03%, sedangkan keju FABC 44,84%. Penggunaaan kultur tunggal dan multi probiotik serta lama penyimpanan berpengaruh nyata terhadap pH keju Feta ($P<0.05$). Kandungan kadar air tertinggi yaitu pada FST sebesar 55,38±2,64%, sedangkan FABC 41,66±2,07%. Kadar abu tertinggi terdapat pada FST 1,51±0,14%, diikuti oleh FABC 1,33±0,49%. Penggunaan kultur tunggal dan multi probiotik berpengaruh ($P<0,05$) terhadap kadar protein Lowry keju Feta. Rerata tekstur keju tertinggi yakni keju Feta yang menggunakan kultur ABC sebesar 1393,3±697,03. nilai kesukaan rasa FABC, dan nilai kesukaan tekstur FST dan FABC memiliki pengaruh ($P<0,05$) pada kekerasan FST dan FABC serta kesukaan rasa FST. Dapat disimpulkan bahwa kultur multi probiotik memiliki potensi sebagai kultur yang dapat dikembangkan dalam pembuatan keju Feta.

(Kata kunci: Feta, Kultur *Streptococcus thermophilus,* Kultur campuran , Kualitas fisik-kimia, Cita rasa).

QUALITY OF PHYSIC-CHEMICS AND FLAVOUR OF FETA CHEESE WITH SINGLE CULTURE (*Streptococcus thermopillus*) AND MIXED PROBIOTICS (*Lactobacillus acidophilus*, *Bifidobacterium longum*, AND *Lactobacillus casei*)

Selysia Marta

13/352589/PT/06627

ABSTRACT

This research aimed to observe potential replacement of used *Streptococcus thermophilus* bacteria particularly mixed bacteria *Lactobacillus acidhopilus*, *Bifidobacterium longum*, and *Lactobacillus casei*. Feta cheese ST (FST) and Feta ABC (FABC) were stored for 30 days and observed physics-chemical changes in storage days 0, 15, and 30. Parameter observed was the rendemen (day-0) as well as tested the quality of chemicals include; water content, ash content, pH, crude protein, and Lowry protein. Physical quality tests included hardness of cheese, flavor, texture, and acceptability. Data on moisture content, ash, pH, crude protein and hardness of the cheese were analyzed by Completely Randomized Design of Factorial Patterns, and average differences tested with Duncan's New Multiple Range Test (DMRT), Lowry protein was analyzed with Independent Samples T-test, consumen acceptance was analyzed with Kruskal-Wallis H, while flavors and textures were analyzed descriptively. The results showed that the highest percentage of cheese content was FST 53.03%, while FABC 44,84%. The used of single cuture and mixed probiotic, and the storaged has a significant effect for pH Feta cheese (P<0,05). The highest moisture content in FST was 55.38 ± 2.64%, while FABC 41.66 ± 2.07%, and tends to fluctuate during storaged. The highest ash content was found in FST 1.51 ± 0.14%, followed by FABC 1.33 ± 0.49%. the used of single probiotic and multi probiotic has significant effect (P<0,05) with lowry protein of Feta cheese The highest cheese texture rate is Feta cheese which used ABC culture of 1393,3 ± 697,03. FABC taste favorite value, and FST and ABC texture preferences have a significant effect (P <0.05) on FST and ABC hardness and taste of Feta ST. It can be concluded that ABC probiotic mixed culture has potential for delevoped in Feta making.

(Keywords: Feta, *Streptococcus thermophilus* culture, Mixed probiotics culture, Physic-chemical quality, Flavor).