Effect of cold and frozen temperatures on artisanal goat cheese containing probiotic lactic acid bacteria isolates (*Lactobacillus plantarum* TW14 and *Lactobacillus rhamnosus* TW2)

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Authors	Setyawardani, T; Sumarmono, J; Widayaka, K;
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Abstract	a:4:{i:0;s:272:"Aim: The research was conducted to determine the effect of temperature and storage duration on the physicochemical, lipolytic, microbiological, and proteolytic characteristics of goat cheese made using Lactobacillus plantarum TW14 and Lactobacillus rhamnosus TW2 bacteria.";i:1;s:305:"Materials and Methods: The cheese was stored at 4 degrees C and -20 degrees C for 0, 15, 30, 45, and 60 days. Observations were made on its physicochemical, lipolysis, and microbiological characteristics. The proteolysis pattern was measured with sodium dodecyl sulfate-polyacrylamide gel electrophoresis.";i:2;s:635:"Results: The protein, fat, ash and total solids levels of cold-stored cheese were higher than the frozen-stored one. The frozen-stored cheese's free fatty acids (FFA) and acid degree value (ADV) levels are lower than those of the cold-stored cheese as indicated by the partial lipolysis event. The total yeast in the frozen-stored cheese is lower than that in the frozen-stored cheese. Finally, the electrophoresis profile indicates that proteolysis of the frozen-stored cheese is formed since there have been detected alpha(s1)-casein, alpha(s2)-casein, beta-casein, and kappa-casein in the casein breakdown during the 60-day storage.";i:3;s:244:"Conclusion: The physicochemical characteristics of cold-stored cheese are better than the cheese stored at frozen temperature. However, frozen-stored cheese produces lower FFA and ADV than cold-stored cheese and lipolysis occurs only partially.";}
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