ENHANCE THE QUALITY OF GHEE BY ADDING STARTER CULTURE FOR THE SEPARATED CREAM

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ABSTRACT

There for food diversification for the ghee, is necessary to improve consumer preference and increased consumption of ghee. The aim of this study was to identify the suitable starter culture for prepare cultured ghee with respect to the physiochemical parameters, sensory attributes and microbiological properties. These experimental design was completely randomized design. Comparison was done between three starter cultures and normal ghee sample was use as control. Commercial starter cultures delvo FVV 211, Chr Hansen YoFlex® SLB 3.0, Sacco KD2 were used as other treatments. There are two stage sensory attributes was identified. Fist one is done at the end production of ghee samples and second one was done for the ghee related food product (ghee biscuits). For Ghee samples sensory evaluation, the parameters such as color, Oder, taste, external appearance, texture, viscosity and overall acceptability. Similarly, for the second sensory evaluation ghee biscuits samples were used and the parameters such as color, Oder, taste, external appearance, texture, mouth feeling and overall acceptability like sensory attributes were evaluated Physiochemical parameters was measured three days intervals until 21 days. Micro biological parameters were analyzed at three stages. Those are separated cream (1st stage), fermented cream (2nd Stage) and cultured ghee (3rdstage). Cultured Ghee samples were analyzed for physicochemical and sensory properties during room temperature storage. The physicochemical (Titratable Acidity, pH, Free Fatty Acids, Viscosity, Total Solid) and sensory characteristics for the Cultured Ghee (color, odder, taste, External appearance, texture, Viscosity and overall acceptability) and for the Cultured Ghee Biscuits (color, odder, taste, External appearance, texture, and overall acceptability) were analyzed.

During storage, the protein and moisture content were not significantly ($p<0.05$) decreased. pH content was significantly decreased in all the treatments. Titratable acidity was significantly increased all the samples, In FFA without KD2 fermented sample, other all samples were significantly decreased and KD2 fermented sample was significantly increased. Viscosity was significantly decreased in all the samples. Total Solids was significantly increased in all the samples.

Organoleptic properties were done at two stages for Cultured Ghee and Cultured Ghee Biscuits. Cultured Ghee Results of organoleptic characteristics revealed Delvo 211 has given a highly acceptable color compared to other treatments. In this study Delvo 211, SLB and KD2 show highly acceptable color, viscosity, odour compared to control treatment and the study show low acceptable for control treatment. Ghee biscuits sensory evaluation Results indicated that KD2 has given a highly acceptable color, odour, taste, external appearance, texture, viscosity and overall acceptability compared to other treatments. Finally, it could be concluded that the Cultured Ghee is enhanced the physio-chemical properties of ghee and KD2 cultured Ghee provide good results for Ghee related products.

CONTENT

LIST OF TABLES

Page No

LIST OF FIGURES

Page No