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Physicochemical and microbial characteristics of domestic commercial semi solid type yogurt

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ABSTRACT

Yogurt is a food produced by bacterial fermentation of milk and the bacteria used to make it are known as “yogurt cultures”. Most of them belong to probiotics such as *Lactobacillus delbrueckii* subsp. *bulgaricus* and *Streptococcus thermophilus* bacteria. Domestic fermented milk market is increasing and about 30 companies are producing yogurt. The purpose of this study was to analyze the quality characteristics of domestic commercial semisolid type yogurt. We collected 20 types of commercial yogurt at local markets. Physicochemical properties including pH, sugar content, acidity, viscosity and microbial characteristics of lactic acid bacteria counts were measured. The yogurt showed pH 4.5, 7.4~18.1% of sugar contents, 0.6~1.3% of total acids and 282~748 cP of viscosities. In the microorganism populations, lactic acid bacteria count were 6.5~11.5 Log CFU/mL and anaerobic lactic acid bacteria count were 7.2 ~ 11.1 Log CFU/mL. The quality characteristics were different depending on the constituents of the sample and the microorganisms used. These results are related to the quality characteristics of yogurts which are useful information about identifying new trends in domestic fermented milk industry.

Keywords: yogurt, fermentation, lactic acid bacteria, new trends

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