

ABSTRACT

This study aimed to determine the quality characteristics of steamed sponge cake during storage, to compare the characteristics of lab-made (LM) and company-made (CM) steamed sponge cake, and to estimate the shelf life of steamed sponge cake. The study includes the production of steamed sponge cake according to the formulation by supplier A and quality characteristics and shelf life estimation based on measurement of water activity, moisture content, texture, and total yeast and mold every two days for nine days. The properties that significantly affect steamed sponge cake's shelf life is the total mold and yeast counts, which must not exceed 10^4 CFU/g according to BPOM. From this criteria, the estimated shelf life of CM and LM was around two and four days, respectively. The storage period has significant effects on the quality characteristics of steamed sponge cake, but not for the type of samples since they shared the same materials and processing steps. Hence, there is a feasibility to reproduce and repeat this shelf life estimation test. This study might be improved with performing proper shelf life testing with more repetition and frequent sampling (daily), using larger sample mass and more sample dilutions ($<10^{-6}$) for TYMC analysis, conducting further identification of the contaminants and assessment of raw materials and production environment.

Keywords: steamed sponge cake, quality characteristics, fungal spoilage, shelf life estimation.