

Abstract

Bolu kukus is a traditional Indonesian steamed cake which is commonly made from wheat flour. There is limited research on the shelf life of *bolu kukus*, especially on its microbiological quality. Bakery product spoilage is predominantly caused by mold growth from recontamination in post-baking/ post-steaming processes which limits the shelf life to 3-4 days. To counter mold growth, 0.1% potassium sorbate was utilized as a mold inhibitor in *bolu kukus*. Total yeast and mold count analysis was conducted on all *bolu kukus* samples (company, control, and treatment) throughout the 9 days of shelf life testing (day 0, 2, 4, 7, and 9). The total yeast and mold count result suggests that based on SNI 7388-2009 standards ($<1 \times 10^4$ CFU/g), the *bolu kukus* with potassium sorbate ($1.24 \times 10^4 \pm 8600$ CFU/g) did not have better shelf life in comparison to control *bolu kukus* ($7.2 \times 10^4 \pm 11000$ CFU/g) at 4 days. However, based on visual observation of the samples the control samples showed surface mold growth on day 4 while the treatment samples on day 7. Meanwhile, the company samples showed the shortest shelf life of 2 days. The treatment samples exceeding the SNI 7388-2009 standards on day 4 may be caused by a higher contamination rate in comparison to control samples. The effectiveness of preservatives is dependent on the inoculum size where larger inoculum sizes require a high concentration of preservatives. Potassium sorbate was not utilized under optimal conditions in *bolu kukus*. Further analysis on *bolu kukus* is required, especially other intrinsic factors affecting mold growth such as, pH and water activity.

Keywords: *Bolu Kukus, shelf life, total yeast and mold count, potassium sorbate*