Abstract

Herbal beverages are nutritious beverages that contain various bioactive compounds with antimicrobial and antioxidant properties. Due to the present of antimicrobial properties, microbial such as probiotics can undergo deterioration. In this regard, microencapsulation process is used to enhance the survivability of probiotics. This experiment investigated the effect of microencapsulation of *Lactobacillus casei* 01 with calcium alginate on cell survival in Thai herbal drinks including pandan juice and chrysanthemum juice during storage at 4°C for 4 weeks. On day 0, the viability of free cells and probiotics beads in both drinks were not significantly different ($p<0.05$). However, upon storage from week 1 onwards, the viability of free cells was noticeably decreased ending the storage of week 4 with 5.34±017 log CFU/g for pandan juice and 5.37±0.17 log CFU/g for chrysanthemum juice, whereas probiotics beads in pandan juice and chrysanthemum juice were 6.17±0.02 and 6.18±0.02 log CFU/g, respectively. Overall, the viability of probiotics beads in products throughout 4-week storage reduced less than 0.5 log as compared to the controls. Microencapsulated probiotics in both products indicated better survival.