

Abstract

Microencapsulation technique was applied to improve the survival of probiotic (*Lactobacillus acidophilus* and *Lactobacillus casei*) in fruit juices by encapsulating bacterial cells within chitosan-coated alginate beads. The results indicated that encapsulation of bacterial cells within chitosan-coated alginate bead increased the survival of probiotics in fruit juices. The reduction of cells was in the range of 0.6-1.4 log cfu mL⁻¹ and 0.9-1.6 log cfu mL⁻¹ for *L. acidophilus* and *L. casei*, respectively, when the products were stored at 4°C for 4 weeks. There was no significant difference ($P>0.05$) between types of fruit juices but significant difference ($P<0.05$) between types of probiotics. Moreover, there were no changes in acidity, pH and degree brix of fruit juices during storage.

