

## ABSTRACT

Mangosteen is very prone to external damage which makes it difficult to be distributed. Thus, quality enhancement is needed in order to extend the storage life and maintain the quality of mangosteen. The aim of this study is to extend the storage life of mangosteen by effective post harvest techniques and to investigate the effect of combined approach on quality of mangosteen. Combination of treatments were applied to mangosteen, which were 12°C and 17°C storage temperature, application of chitosan coating; and the use of one-way valve bag packaging, for 5 weeks storage period. The parameters that were observed are physical (weight loss, firmness, color, defects) and chemical (titratable acidity, soluble solid content) properties. Physicochemical analysis were performed every once a week. The result showed that chitosan coating and the use of one-way valve bag could delay the ripening of mangosteen also maintained the weight loss. Storage at 12°C could maintain the weight loss better than storage at 17°C, however it was more prone to chilling injury. The combination of chitosan coating and one-way valve bag packaging did not show any significant changes in both temperature.

*Keywords: mangosteen, post harvest, shelf life, quality, chitosan, bag*