

**Title** Effect of glucomanan coating on ripening and quality of quality of papaya cv, 'Red Maradol'  
**Author** T. Sopondilok, V. Srilaong, and A. Uthairatanakij  
**Citation** Book of Abstracts, Southeast Asia Symposium Quality and Safety of Fresh and Fresh Cut Produce Greater Mekong Subregion Conference on Postharvest Quality Management in Chains, August 3-5, 2009, Radisson Hotel, Bangkok, Thailand.  
**Keyword** Glucomanan; Coating; papaya; Red Maradol

### **Abstract**

Glucomanan prepared from konjac (*Amorphophallus* sp.) has widely used in food industry as an emulsifier, moreover its can form a gel and edible film. From the later properties, glucomanan might be possible to use in postharvest research. In this study, glucomanan at 0 (control) and 0.1% was applied on the surface of papaya cv. 'Red Maradol' for delaying ripening and maintaining qualities. The results indicated that peel colour of papaya in both treatments was developed with the progress of storage, however, there was no significantly difference of peel colour between 0.1% glucomanan coated fruit and the control. In contrast, pulp colour of papaya was significantly difference between treatments. 0.1% glucomanan delayed pulp colour development, these indicated by lower a and b values, and higher hue angle value compare with the control. Weight loss of papaya in both treatments was increased in the same trend and no significantly difference was observed. Firmness of papaya in both treatments decreased sharply after storage and 0.1% glucomanan coating maintained a higher firmness than control. For the eating quality, the soluble solid of control fruit was higher than in 0.1% glucomanan coated fruit. This revealed that 0.1% glucomanan coating could retarded the ripening of papaya. In addition, coating with 0.1% glucomanan generated a modified atmosphere condition inside the fruit which had lower O<sub>2</sub> and higher CO<sub>2</sub> contents compared with the control.