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Effect of palm oil coating on sapodilla (Manilkara achras (Mill.) fosberg) indifferent concentrations at ambient temperature / Norehan Arifin.

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EFFECT OF PALM OIL COATING ON SAPODILLA [Manilkara achras (Mill.) Fosberg] IN DIFFERENT CONCENTRATIONS AT AMBIENT TEMPERATURE

By Norehan binti Arifin

Research Report submitted in partial fulfillment of the requirements for the degree of Bachelor of Agrotechnology Science (Post Harvest Technology)

Department of Agrotechnology FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE UNIVERSITI MALAYSIA TERENGGANU 2009



FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN UNIVERSITI MALAYSIA TERENGGANU

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DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

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ABSTRACT

Sapodilla is a climacteric fruit that ripens rapidly after harvest. In order to improve storage life of fruit, the effectiveness of palm oil coating on quality maintenance of fruit was investigated. The fruits were treated with three concentrations of palm oil coating solution at 5%, 10% and 15%. Untreated fruit was used as a control. All the fruits were stored at ambient temperature (28°C). The quality of fruit was evaluated based on weight loss percent, skin colour, firmness, total soluble solid (TSS) and pH value during storage period. The results showed that the treated fruit was effective delayed changes in weight and firmness losses throughout the storage period. By the end of storage period, the weight loss of fruit was best maintained by treated fruit with 15% palm oil. The total soluble solid (TSS) in treated fruit was found to be significantly better at 12 days of storage compared to untreated fruit. The values of pH in treated and untreated fruit were found to be no significant changes during the storage period. While the skin colour of treated fruit becomes darker than untreated fruit. In addition, no significant different was observed in the hue angles of both untreated and treated fruits. Palm oil coating treatment indicated that the quality parameters on weight loss, firmness, total soluble solid (TSS) and shelf life of fruits could maintain until 15 days.