

EONATURE COATING TREATMENT OF SALA MANGO FOR EXPORT SIMULATION STUDIES TO SINGAPORE

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ABSTRACT

Perlis Sunshine mango also known as 'Sala' mango is a variety of mango which grows mainly in the Northern State of Perlis, Malaysia. Sala mango, like other varieties such as Chokanan and Harumanis mangoes have problems of rapid ripening after harvest and anthracnose disease during the storage period. This problem needs to be overcome so that the post-harvest life of Sala mango can be extended. The Federal Agricultural Marketing Authority is planning to export Sala mango to the Singapore market where there is a demand for the variety and the market price in Singapore can reach SGD3 (RM 9) per kilogram. The objective of this study is to determine the effectiveness of EONature surface coating which is a coating developed by Malaysian Agricultural Research and Development Institute on the storage life of Sala mango at ambient temperature. Post-harvest treatment was carried out as follows, the control fruits were those that were not washed and packed immediately after harvest, which is the current practice. For EONature treatment the harvested fruit were washed with water mixed with 1% aluminum sulfate then coated with EONature. All the coated and uncoated fruits were tested with different storage and ripening induced simulations. The results indicated that the EONature coating significantly prevented fruit weight reduction, delayed ripening, and controlled incidence of anthracnose disease. Delaying exogenous ripening treatment with the use of carbide on coated fruit will also slow down the rate of weight loss and disease occurrence. Thus, the results revealed that the EONature coating is suitable treatment to prolong shelf life of Sala mango for export to Singapore.

Keywords: Antifungal, edible coating, ripening, shelf life, quality