

Trials for application of handling technology in mango export

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Abstract

Mango is one of the horticultural export commodities in Indonesia. Mango production reached 1.29 million tons in 2010, the fourth largest after the production of bananas, oranges, and pineapple, and 1.84 million tons in 2011, the third largest after bananas, and oranges. This study was to observe the physical characteristic changes of mango during shipment to Hong Kong both in static and dynamic ways. Static trial was conducted in a refrigerated container with the capacity of 7 tons (20 ft size). Dynamic shipments of mangoes to Hong Kong were conducted by air and sea with the capacity of 1 ton, respectively. Results of static trial showed that treatments of natural antimicrobial and waxing were able to maintain the freshness of mangoes until 3 weeks at 9-11°C with a length of display until 8 days at 18-22°C. In export trial to Hong Kong by air, treatment of waxing after 8 days reduced the damage to 1.5% lower than 6.5% damage performed by mangoes without waxing treatment. The delivery of mangoes to Hong Kong by sea for 14 days indicated that mangoes relatively were in good quality but experienced disease incidences. The spoilage amounted to 18.2 and 22.0%, respectively, for mangoes treated with natural anti microbial agent, and waxing. The high level of spoilage might be because the incidence had happened starting from the orchard when mangoes were harvested in heavy rainfall.