

**Title** Sea shipment of ready-to-eat durian to Hong Kong

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### **Abstract**

Durian (*Durio zibethinus* Murray) is a popular seasonal fruit in South East Asia. The uniqueness of the fruits lies on its smooth and creamy yellow or white pulp with a strong flavour and odour. The quality of the fruit pulp varies greatly and cannot be determined from outside. Several types of physiological disorders may severely reduce their quality; e.g. granulation of the fruit pulp, internal browning of the pulp core, wet core and tip bum problems. The pulp soften, turns slimy and deteriorates rapidly, resulting in off-flavour and astringent odour being produced. Effective bulk packing system developed by MARDI had been successfully applied in a sea shipment trial from Malaysia to Hong Kong. The unique smell of durian was scented upon opening the lid of the bulk packing. The quality of the packed product was evaluated immediately upon arrival (after 6 days sailing), followed by subsequent daily observations on the products which were stored at 2°C. Fruit sweetness was still high at 30-32% Brix with no significant colour changes as noted with the L (70-74) and b (44-46) values. Lower microbial counts were observed until the end of the storage period as strict quality assurance protocols had been implemented during the handling operations. Consumer response studies undertaken by 200 respondents indicated that the quality of the packed durian was still good and well accepted. Inpackage temperature remained at 0°C for 60 hours, increased to 3°C after 72 hours (day 3) and later maintained at 10°C at the end of the sailing time (day 6). Lower weight loss (0.5-1%) was observed as the in package relative humidity (RH) was maintained at 90-95% throughout the journey to Hong Kong.