

**Title** Incidence of lenticel spotting in Carabao mangoes (*Mangifera indica* L.) as influenced by field bagging, harvest date and hot water treatment

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### **Abstract**

Field bagged and non-bagged Carabao mango fruit, harvested in July and August of 2005, representing dry and wet harvest months, were subjected to hot water treatment (HWT, 52-55°C) and then held in ambient conditions up to the end of shelf-life. Lenticel spotting (LS) occurred across the entire fruit surface. LS was greater in fruit harvested in August, the wetter month. Although LS was evident in both bagged and non-bagged produce during and after harvest it was higher in non-bagged fruit. Fruit subjected to HWT significantly exhibited a higher incidence of LS compared to non-HW-treated fruit. The highest incidence of LS occurred in August harvest x non-bagged x HW-treated mango fruit. LS developed in all treatments up to the end of shelf-life. Mangoes harvested in July had better visual quality, significantly longer shelf-life, but the same rate of ripening (as indicated by peel colour change) compared with August-harvested mangoes. At harvest, bagged fruit already showed better visual quality than non-bagged fruit. Although HWT hastened peel colour change, it significantly reduced incidence of diseases resulting in higher visual quality and significantly longer shelf-life than control fruit. HWT also promoted softening and LS. Based on peel colour development, bagged fruit ripened earlier than non-bagged fruit. Lenticel spots were more evident when fruit was ripe yellow. Microscopic investigation of lenticel spots showed that spots in ripe yellow fruit were larger than those in green unripe mangoes.