Title Towards better stone fruit supply chains in North West Vietnam

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Citation ISHS Acta Horticulturae 804:71-76. 2008.

Keywords plum; peach; maturity index; supply chain; ReTain; packaging

Abstract

Mapping stone fruit supply chains in north west Vietnam provided some insights into where modifications to current practice could make a difference to quality out-turn and ultimately to farmers livelihoods. Currently fruit is harvested immature to prevent fruit fly infestation and also to enable the fruit to withstand the rough handling encountered throughout the supply chain. Fruit is harvested late afternoon or early morning, transported to a central collection point, then sorted and packed into 20-35 kg cartons or sacks. It is then loaded on to trucks and transported to Hanoi, a 5-11 h journey. From the central wholesale market in Hanoi, fruit is either sold to local retailers or to agents from other regions where it is shipped to. On arrival in Hanoi, 25-40% is damaged being either unsaleable or discounted due to impact or compression damage during transit. Shock loggers showed that significant impacts were occurring during sorting, packing and loading operations (up to 23 g) whilst many smaller impacts (5 g) are occurring during the transport phase. To reduce losses along the supply chain and to improve fruit quality, our research has focussed on: 1) developing maturity indices; 2) utilising ReTain (AminoethoxyVinylGlycine, AVG) to improve fruit quality and enable fruit to better withstand the rigours of the supply chain; and 3) modifications to current packaging to reduce damage during transit. Harvesting 'Tam Hoa' plums 4-6 days after current commercial harvest improved fruit colour and flavour with no reduction in postharvest storage life. Results with ReTain on 'Tam Hoa' plum in Bac Ha (Lao Cai province) and Earligrand peach in Moc Chau (Son La province) have been mixed, however it does appear to delay softening. In 2006, 5 different packaging options were compared both in terms of suitability and cost. The implications of these results for stone fruit supply chains in North West Vietnam will be discussed.