

# Development of bee wax coating materials for 'Sai Nam Pueng' tangerine fruit

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Acta Horticulturae 989: 117-120. 2013.

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## Abstract

The study was conducted to develop a suitable bee wax coating for 'Sai Nam Pueng' tangerine that can be kept for at least 1 year at ambient temperature (25-30°C) and determine its suitability for application in a commercial coating machine without any effect on coating properties. The results revealed that optimum coating formula comprised of 15.0% (w/v) ethanol, 6.0% (w/v) oleic acid, 4.0% (w/v) bee wax and 0.4% (w/v) resin in water. This coating material was stored at ambient temperature (25-30°C) for 1 year which showed similar characteristics as freshly prepared coating material. In addition, the bee wax material proved to be suitable for commercial coating machine for tangerine fruit. The quality of the coated 'Sai Nam Pueng' tangerine fruit had acceptable quality after 2 weeks storage at 25°C and up to 5 weeks at 15°C.