

Title Evaluation of Activated Carbon Paper Efficiency for Prolonging Economic Fruit Shelf Life

Author Suphat Kamthai

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Abstract

In order to improve paper properties of activated carbon paper, the evaluation of activated carbon paper efficiency for prolonging economic fruit shelf life such as climacteric fruits (*Gros Michel*, (*Musa* AA Group); as Kluai Hom Thong and *Mangifera indica* L. as Namdokmai No.4) was investigated. The old corrugated container (OCC) pulp was added 0, 5, 10, 15, 20, 25% w/w for handsheet forming and stored at room temperature (50 ± 5 %RH). Addition of 25% activated carbon in paper could be extended banana shelf life. The storage days of banana were about 21 days. At 21 storage days of untreated t banana has 16.2%; weight losses, 69.5 N/cm²; firmness, 16.0% total solid soluble, 10; Hunter “a” value and 6.9; Heedonic scale scoring test. When mango was tested with activated carbon paper at equally activated carbon percentage indicated the paper could be prolonged mango shelf life about 18 days. At 18 storage days of mango has 18%; weight losses, 5.9 N/cm²; firmness, 12.5% total solid soluble, 0.0007%; total acidity, 8.6; Hunter “a” value and 8.5; Heedonic scale scoring test. Thus the addition of activated carbon in paper could be an alternative method in extending shelf life of economic fruit during storage and export.