Effect of Coating and Storage Temperatures on Quality and Shelf Life of Pineapple Fruit (Ananas comosus (L.) Merr)

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ABSTRACT

The objective of this research has been to determine the effect of coating and storage temperatures on quality and shelf life of pineapple fruits. A two-factor factorial experiment, with three replication, was conducted. The first factor is coating i.e. control, bee wax 6%, bee wax 9%, bee wax 12% and chitosan 2%, and the second factor is storage temperature factor, room temperatures (26±1°C) and cool temperatures (15.5±1.5°C). Observation was conducted on the following variables: weight loss, water contents, fruit softening, total soluble solids, titrable acidity, peel color and organoleptic of odor, taste and crunchyness. Result of the experiment showed that bee wax inhibited weight loss, water contents loss and the change of total soluble solids. Fruits treated with bee wax 9% of 12% had a shelf life of 4 weeks while control fruits, fruits treated with bee wax 6% and chitosan 2% had a shelf life of 3 weeks only. Among the four coating materials, bee wax 9% had the most effective effect on quality and shelf life of pineapple. Storage of fruits at cool temperature inhibited weight loss, water contents loss, fruit softening, the change of total soluble solids and the decrease of titrable acidity. Storage of fruits at cool temperature is better than storage at control room temperature.