

APPLICATION OF POTASSIUM PERMANGANATE (KMnO₄) AND POSITION OF BANANA FRUIT COMBS IN BUNCHES ON THE QUALITY AND SHELF LIFE OF CAVENDISH BANANA (*Musa acuminata* Colla.)

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ABSTRACT

Cavendish banana has varying nutritional content, beneficial for health, but it has disadvantages rots easily because it is a type of climacteric fruit, so requires treatment during storage process. This research aims to examine the interaction between the dose of KMnO₄ oxidizing materials and the position of the banana comb on the bunch, determine the best dose of KMnO₄ oxidizing materials, and determine the effect of the position of the banana comb in bunches on the quality and shelf life of cavendish banana. This research is a laboratory experiment, using Completely Randomized Design (CRD) 2 factors. The first factor is the dosage of the KMnO₄ oxidizing materials, 0 grams, 10 grams, 20 grams, 30 grams, 40 grams. The second factor is the position of the banana comb on the bunch, the base, middle, tip. Data were analyzed using analysis of variance (ANOVA) 5% then continued with Duncan's Multiple Range Test (DMRT) 5%. The results showed that there was an interaction between the dose of the KMnO₄ oxidizing materials and the position of the banana comb on the bunch in shelf life. A dose of 30 grams KMnO₄ oxidizing materials showed the best results in maintaining weight shrinkage, sweetness content, and ratio flesh and skin of the fruit at 8,12,16,20 DAS, hardness of the fruit skin. The position of the banana comb on the bunch, at the tip showed the best results in maintaining weight shrinkage and hardness of the fruit skin at 8,12,16,20 DAS, sweetness content and ratio flesh and skin of the fruit.

Keywords: Cavendish Banana, KMnO₄, Shelf Life, Fruit Comb Position