

ABSTRACT

Faiqoh, Elmaulida N. 2014. *Effect Concentration And Soaking In CaCl₂ (Calcium Chloride) on the Quality and Age Store Super Red Dragon Fruit (Hylocereus costaricensis)*. Thesis Department of Biology, Faculty of Science and Technology, State Islamic University of Maulana Malik Ibrahim Malang. Supervisor: Ruri Siti Resmisari, M.Si and Ach. Nashichuddin, M.A

Keywords: Super Red Dragon Fruit (*Hylocereus costaricensis*), CaCl₂ (Calcium Chloride), Texture, Weight Losses, color, content results in Vitamin C, Fruit Store Age.

Super red dragon fruit (*Hylocereus costaricensis*) is a type of dragon fruit is the most desirable because it has the benefit of a super red dragon banyak. Buah including horticultural products that are klimaterik and has a fairly high water content therefore super red dragon fruit is classified as perishable commodities so it has a short shelf life. For that we need the administration of exogenous chemicals, namely CaCl₂, because the calcium salts have properties that easily dissolves in water, so that the presence of CaCl₂ in the solution of Ca²⁺ ions will strengthen the cell wall and will inhibit the hydrolysis of pectin and starch breakdown cause.

The purpose of this study was to determine the effect of concentration and soaking time solution of calcium chloride (CaCl₂) on the quality and shelf life of super red dragon fruit (*Hylocereus costaricensis*). This experimental study using a completely randomized design (CRD). By using 252 super red dragon fruit (*Hylocereus costaricensis*) consisting of 3 treatments and 3 replications. This study was conducted over 12 days. From the results of the study were analyzed with confidence ANOVA two way 0.05 (5%), if significantly different results then followed by Duncan's range test.

Based on the results of the study showed that the effect of concentration and soaking time of calcium chloride (CaCl₂) significantly affected the texture, weight loss, levels of vitamin C and shelf life, but did not significantly affect the color super red dragon fruit (*Hylocereus costaricensis*). The results of the study showed each parameter, the best averages on K3 (6%), L3 (120 minutes) and the interaction between K3L3 (6% concentration and immersion for 120 minutes) In texture showed that treatment K3L3 Significance values sequentially from the the 3rd to 12 (4,43N, 6,67N, 9,16N and 11,53N), for the treatment of weight loss K3L3 also showed significant mean consecutively starting the 3rd day (16.17 grams, 30.73, 45 , 28 grams, and 63,11gram) because it has the least weight difference of shrinkage. Furthermore, for the levels of vitamin C showed the best mean consecutively starting the 3rd day (63.48 mg / 100g, 56.00 mg / 100g, 49.55 mg / 100g 45.30 and 45.30). Treatment K3L3 show best treatment that has a long shelf life lebih (12 days) compared to controls (6 days).