

ABSTRACT

Mudawamah, Nur. 2010 Effect of Concentration and Long Soaking in Chloride Calcium (CaCl_2) toward Postharvest Quality and Quantity of Red Guava Fruit (*Psidium guajava* Linn). Thesis. Biology Department, Faculty of Science and Technology, Maulana Malik Ibrahim State Islamic University of Malang. Supervisor: (I) Ruri Siti Resmisari, M.Si. (II) Andik Wijayanto, M.Si.

Keywords: Chloride Calcium (CaCl_2), Red Guava (*Psidium guajava* Linn).

Guava fruit was known as a horticultural crop was easily damaged. This was because of horticulture commodities still in respiration and transpiration after harvest. This respiration and transpiration activity and remodel using nutrients that exist in the fruit, so that in a certain period due to the use of nutrients and overhaul fruit quality decline and physiological damage. One way to maintain the quality and quantity of the fruit was the maturation inhibitors technology. Maturation inhibitors using chemicals in the form of CaCl_2 solution that had the ability to fill with cell wall constituent and enzyme causes the ripening process both rind and flesh of the fruit. The purpose of this study was to determine the effect of CaCl_2 solution to the quality and quantity of fruit, long soaking on the quality and quantity of fruit, and the interaction of both the quality and quantity of fruit.

This research was conducted in April 2014, at the Laboratory of Biochemistry of UIN Malang, and Laboratory of Chemical UMM Malang. This study was designed using a completely randomized design (RAL) with factorial treatment type and concentration of different soaking time. CaCl_2 solution concentration used was 2%, 4%, and 6%, for long soaking 60, 90, and 120 minutes. Each treated 3 replications. Data were analyzed using ANAVA and a further with Duncan's test 5%.

The results showed that CaCl_2 solution and long soaking with various concentrations and kinds of combinations that gave effect as a delaying fruit. Concentration of 6% CaCl_2 solution was more efficiently that used as delaying fruit ripening was reviewed on the content of vitamin C, fruit softness, weight loss, and discoloration.