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ABSTRACT

Kusuma Wardhani, Hayu. 2013. **Effect of using Modified Atmosphere Storage (MAS) Packaging Polyethylene in Chiller Temperature and Room Temperature Levels Of Vitamin C and β Carotene Levels In Guava (*Psidium guajava L.*)** Final Assigment, Nutrition Study Program, Faculty of Medicine, Universty of Brawijaya. Supervisors: (1) Prof. DR. Dr. Sanarto Santoso, DTMH, SpMK. (2) Widya Rahmawati, S, Gz. M. Gizi.

Guava is one type of commodity fruit source of vitamin C and β Carotene in Malang. Generally, fruits usually have to post-harvest metabolism. Storage conditions such as packaging and storage temperature may affect fruit quality of both the physical and content. This study aimed to determine the effect of using Modified Atmosphere Storage (MAS) packaging polyethylene in chiller temperature and room temperature on levels of vitamin C And β carotene content of guava fruit. Experimental studies conducted using completely randomized design on sample of guava which met the inclusion criteria specified. Samples packed polyethylene using Modified Atmosphere Storage (MAS) and stored at room temperature and chiller temperature (10^oC). The results showed that the MAS and storage temperature *chiller* can inhibit decreased level of vitamin C and β karoten levels significantly when compared with storage at room temperature and without the MAS. The conclusion of this study is the packaging and storage temperature influence on the content of vitamin C and β carotene of guava. Based on this study, the recommended storage guava packed by polyethylene plastic and stored in cold temperatures.

Keywords: vitamin c, β carotene, Modified Atmosphere Storage, Storage temperature, guava *(Psidiun guajava L.)*

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