

## **ABSTRACT**

*The purpose of this research are to analyze the influence of storage temperature, the type of packaging and the interaction between storage temperature and the packaging over the characteristic of organic carrot. Preliminary and Main method is used for this research. The preliminary research covers raw material content of organic carrot test against chemistry response ( $\beta$ -caroten method spectrophotometer, water content method gravimetric, vitamin C method iodimetri, total dissolved solid used refractometer, and rate respiration method anaerob system), physics response (violence used penetrometer, and keel weight using digital pair of scales), and organoleptic response (attribute color, taste, freshness and overlook) to the fresh organic carrot material. Main research covers experimented population randomly, with 4x4 pattern in 2 repetition. The first factor is storage temperature (5°C, 10°C, 15°C and room temperature) and the second one is the packaging polypropylen, polyethylen wrapping and non packaging). From the previous we got that  $\beta$ -caroten 3,456  $\mu$ /mg, water content 90,28 %, vitamin C 10,200 mg/100gram, total dissolved solid 6,40 °Brix, rate respiration 8,15 CO<sub>2</sub>/kg/hour, violence 1,64 mm/10 sec/100 gram and keel weight 0 % and organoleptic response does not have significant impact for color attribute, taste, freshness and overlook. The main research result shows that storage temperature gives some influence for water content, rate respiration, violence, and keel weight in 7 days storing time packaging gives some influence to water content, vitamin C, rate respiration and keel weight in 7 days storing time, and going there is a significant influence between storage temperature and the packaging over the water content and vitamin C of the organic carrot at 7 days storing time. The main research results show that the temperature 5 °C is a storage temperature of maintaining a change in the characteristics of organic carrot and can suppress respiration and transpiration rate during the storage process and polypropylene packaging type is good in maintaining organic carrot characteristics changes during the process of storage and packaging type polypropylene more difficult to pass gas or water vapor because it is harder and higher softening point, and has a high density and low permeability.*

*Keywords : Organic carrot, storage, packaging*