

## ABSTRAK

### PENGARUH JENIS *COATING* TERHADAP LAJU RESPIRASI BUAH NANAS (*Ananas comosus*) SELAMA PENYIMPANAN PADA SUHU RENDAH

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Buah nanas (*Ananas comosus*) merupakan salah satu komoditas buah andalan Indonesia yang sangat potensial untuk dikembangkan, tetapi buah nanas termasuk buah yang mudah rusak (*perishable*). Tujuan dari penelitian ini adalah mempelajari pengaruh pemberian pelapis *coating* pada berbagai dosis campuran bahan pelapis (CMC+CaCl<sub>2</sub>), dan membandingkan antara campuran pelapis dari CMC dan CaCl<sub>2</sub> dengan *coating existing* yang digunakan PT GGP Lampung. Penelitian ini menggunakan jenis nanas madu (MD2) dengan *shell color* 0 (SC0) yang diperoleh dari PT Great Giant Pineapple Lampung dan menggunakan tiga macam *coating* yaitu campuran CMC dan CaCl<sub>2</sub> dengan 3 dosis yang berbeda, dan dua jenis *coating* yang sudah digunakan komersial di PT GGP yaitu *coating* Sta Fresh 2952 dan *coating* OE 6012. Hasil dari penelitian ini yaitu pemberian pelapis *coating* (CMC+CaCl<sub>2</sub>) berpengaruh pada proses laju respirasi buah nanas madu, terutama pada dosis campuran MC3 (1,5% CMC + 0,75% CaCl<sub>2</sub>) dapat menghambat laju respirasi dan mempertahankan kualitas buah nanas dibandingkan perlakuan kontrol (tanpa *coating*). Hasil penelitian menunjukkan bahwa konsentrasi pelapis MC3 (dosis 1,5% CMC dan 0,75% CaCl<sub>2</sub>) menghasilkan laju respirasi buah nanas sebesar ± 3 ml CO<sub>2</sub>/Kg.h, lebih rendah dibandingkan buah nanas dengan konsentrasi pelapis yang lain. Namun demikian *edible coating* dengan bahan CMC+CaCl<sub>2</sub> belum memiliki performa yang lebih baik dari *coating existing* Sta Fresh dan OE yang digunakan PT Great Giant Pineapple.

Kata kunci : *edible coating*, laju respirasi, CMC, CaCl<sub>2</sub>, Sta Fresh, OE

## **ABSTRACT**

### ***EFFECT OF PALM STEARIN AS A COATING FOR PINEAPPLE FRUIT (*Ananas comosus*) AGAINST RESPIRATION RATE DURING STORAGE AT LOW TEMPERATURE***

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Pineapple (*Ananas comosus*) is one of the most promising Indonesian commodities which has a great potential for development, however pineapple is categorized as perishable fruit. In the trade, shelf life is often a crucial issue the aims of this research were to study the effect of coating on different doses of coating material mixture (CMC + CaCl<sub>2</sub>), and to compare the coating mixtures of CMC and CaCl<sub>2</sub> with the existing coating used by PT GGP Lampung. This study used honey pineapple (MD2) with shell color 0 (SC0) obtained from PT Great Giant Pineapple Lampung and used three types of coatings, namely a mixture of CMC and CaCl<sub>2</sub> with 3 different doses, and two types of coatings that have been used commercially at PT GGP, namely Sta Fresh 2952 coating and OE 6012 coating. The results of this study are the provision of coatings (CMC + CaCl<sub>2</sub>) affects the process of respiration rate of honey pineapple fruit, especially at the dose of MC3 mixture (1.5% CMC + 0.75% CaCl<sub>2</sub>) can inhibit the respiration rate and maintain the quality of pineapple fruit compared to the control treatment (without coating). The results showed that the MC3 coating concentration (dose of 1.5% CMC and 0.75% CaCl<sub>2</sub>) resulted in a pineapple fruit respiration rate of  $\pm 3$  ml CO<sub>2</sub>/kg.h, lower than pineapple fruit with other coating concentrations. However, edible coatings with CMC+CaCl<sub>2</sub> ingredients have not performed better than the existing Sta Fresh and OE coatings used by PT Great Giant Pineapple.

Keywords : Edible coating, respiration rate, CMC, CaCl<sub>2</sub>, Sta Fresh, OE