

ABSTRAK

PENGARUH KONSENTRASI *EDIBLE COATING* DARI KULIT UDANG VANNAMEI TERHADAP KUALITAS BUAH PISANG CAVENDISH SELAMA PENYIMPANAN

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Buah pisang termasuk dalam kategori mudah rusak (*perishable*) hal ini karena pisang termasuk buah klimaterik atau buah yang masih mengalami laju respirasi setelah dipanen. Proses fisiologis yang masih berjalan setelah pemanenan serta kadar air buah pisang yang tinggi menyebabkan buah cepat mengalami pematangan dan pembusukan. Metode yang dapat digunakan untuk memperpanjang masa penyimpanan buah setelah pemanenan adalah dengan pengaplikasian *edible coating*. *Edible coating* dapat berasal dari berbagai sumber, salah satunya adalah kitosan. Kitosan banyak terkandung pada hewan laut seperti udang, jenis udang vannamei (*Litopenaeus vannamei*). Penelitian ini bertujuan untuk mengetahui konsentrasi kulit udang vannamei yang optimum untuk mempertahankan kualitas buah pisang cavendish selama penyimpanan. Penelitian ini dilaksanakan secara mandiri di ruang pengamatan tertutup. Penelitian menggunakan metode Rancang Acak Lengkap (RAL) yang terdiri dari empat perlakuan yaitu tanpa aplikasi *edible coating* (kontrol), *edible coating* kulit udang vannamei konsentrasi 1%, *edible coating* kulit udang vannamei konsentrasi 2%, *edible coating* kulit udang vannamei konsentrasi 3% dan diulang sebanyak 4 kali. Data dianalisis menggunakan analisa sidik ragam (ANOVA) dan jika terdapat perbedaan nyata dilanjutkan dengan uji jarak berganda Duncan pada taraf nyata 5%. Untuk data dari parameter organoleptik dianalisis menggunakan uji non parametrik Kruskal-Wallis dan jika terdapat perbedaan nyata dilanjutkan dengan uji Mann-Whitney pada taraf nyata 5%. Hasil penelitian menunjukkan bahwa *edible coating* kitosan kulit udang vannamei berpengaruh terhadap kualitas buah pisang cavendish dan pada konsentrasi *edible coating* 2% mampu mempertahankan kualitas buah pisang cavendish selama penyimpanan.

Kata kunci : *edible coating*, kitosan, pisang cavendish, udang vannamei

ABSTRACT

THE EFFECT OF EDIBLE COATING CONCENTRATION FROM VANNAMEI SHRIMP SHELL ON THE QUALITY OF CAVENDISH BANANAS DURING STORAGE

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Bananas are classified as perishable because they are a climacteric fruit, meaning they continue to respire after being harvested. The ongoing physiological processes after harvest, along with the high water content, cause the fruit to ripen and rot quickly. The method that can be used to extend the storage period of fruit after harvesting is by applying edible coating. Edible coatings can come from various sources, one of which is chitosan. Chitosan is found in abundance in marine animals such as shrimp, the type of vannamei shrimp (*Litopenaeus vannamei*). This research was conducted independently in a closed observation room. The study used the Completely Randomized Design (CRD) method consisting of four treatments, namely without edible coating application (control), edible coating of vannamei shrimp skin concentration of 1%, edible coating of vannamei shrimp skin concentration of 2%, edible coating of vannamei shrimp skin concentration of 3% and repeated 4 times. Data were analyzed using analysis of variance (ANOVA) and if there was a significant difference, it was continued with Duncan's multiple range test at a 5% level of significance. For data from organoleptic parameters, it was analyzed using the Kruskal-Wallis non-parametric test and if there was a significant difference, it was continued with the Mann-Whitney test at a 5% level of significance. The results of the study showed that edible coating of chitosan from vannamei shrimp shells had an effect on the quality of Cavendish bananas and at a concentration of 2% edible coating it was able to maintain the quality of Cavendish bananas during storage.

Keywords: edible coating, chitosan, cavendish banana, vannamei shrimp