

**PENGARUH SUHU PENYIMPANAN DAN LAMA PERENDAMAN
DALAM *EDIBLE COATING* BERBASIS KARAGENAN DAN GLISEROL
TERHADAP SUSUT BOBOT, SIFAT KIMIA, DAN TOTAL BAKTERI
DAGING BUAH DURIAN (*Durio zibethinus*) SEGAR**

INTISARI

Durian yang dilapisi suatu *film* yang dapat dimakan (*edible coating*) dengan perlakuan suhu penyimpanan dan lama perendaman dalam larutan *edible coating* berbasis karagenan dan gliserol merupakan salah satu alternatif yang diharapkan dapat menekan laju penurunan mutu buah durian segar dan memperpanjang umur simpannya. Penelitian ini bertujuan untuk menghasilkan kombinasi terbaik antara suhu penyimpanan dengan lama perendaman dalam *edible coating* berbasis karagenan dan gliserol terhadap mutu daging buah durian segar yaitu susut bobot, kadar air, kadar alkohol dan total bakteri. Metode penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan dua faktor yaitu suhu penyimpanan (5°C, 25°C) dan lama perendaman (0 detik, 30 detik, 60 detik, 90 detik), setiap perlakuan dengan dua kali ulangan. Analisis yang dilakukan yaitu susut bobot, kadar air, kadar alkohol dan total bakteri. Data yang diperoleh dilakukan uji statistik *analysis of variance* (ANOVA) dan jika berbeda nyata akan dilanjutkan dengan uji *Duncan Multiple Range Test* (DMRT) pada tingkat kepercayaan α 5%. Hasil penelitian menunjukkan bahwa selama pengamatan 8 hari, daging buah durian segar dengan perlakuan lama perendaman 90 detik dan suhu penyimpanan 5°C adalah kombinasi terbaik dengan penurunan susut bobot terendah yaitu 6,77%, kandungan air 70,92%, kandungan alkohol 0,45% dan total bakteri $2,1 \times 10^5$ cfu/g.

Kata kunci : durian, *edible coating*, daging buah segar, karagenan, gliserol

THE EFFECT OF STORAGE TEMPERATURE AND DIPPING TIME IN CARRAGENAN AND GLYCEROL-BASED EDIBLE COATING ON THE WEIGHT LOSS, CHEMICAL PROPERTIES, AND TOTAL BACTERIA OF FRESH DURIAN (*Durio zibethinus*)

ABSTRACT

Durian coated with an edible coating with variations in storage temperature and dipping time in carrageenan and glycerol-based edible coating solutions is one alternative that is expected to reduce the rate of decline in the quality of fresh durian and extend its shelf life. This study aims to produce the best combination of storage temperature and dipping time in carrageenan and glycerol-based edible coatings on the quality of minimally processed durian, that is weight loss, water content, alcohol content and total bacteria. This research method uses a completely randomized design (CRD) with two factors, storage temperature (5°C, 25°C) and dipping time (0 seconds, 30 seconds, 60 seconds, 90 seconds), and each treatment with two replications. The analysis carried out is weight loss, water content, alcohol content and total bacteria. The data obtained was performed statistical Analysis of Variance (ANOVA) test and if it was significantly different it would be continued with the Duncan Multiple Range Test (DMRT) at α 5% confidence level. During the 8 days observation, the results showed that the fresh durian with 90 seconds dipping time and 5°C storage temperature was the best combination with the lowest weight loss reduction that is 6,77%, water content 70,92%, alcohol content 0,45% and total bacteria $2,1 \times 10^5$ cfu / g

Keywords: durian, edible coating, fresh fruit, carrageenan, glycerol