

PENGARUH *EDIBLE COATING* BERBAHAN JERUK NIPIS (*Citrus aurantifolia*) DAN KOLANG KALING (*Arenga pinnata* Merr.) TERHADAP SIFAT FISIK, ORGANOLEPTIK, KADAR VITAMIN C, DAN MASA SIMPAN BUAH KLIMATERIK

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ABSTRAK

Latar Belakang : Buah klimaterik seperti pisang ambon memiliki laju respirasi tinggi sehingga rentan mengalami pencoklatan yang menurunkan kualitas dan masa simpan. Salah satu metode memperlambat kerusakan adalah *edible coating* berbahan alami. Jeruk nipis kaya vitamin C dan asam sitrat, sementara kolang-kaling mengandung polisakarida sebagai pembentuk gel. Kombinasi kedua bahan berpotensi menghasilkan *edible coating* yang menjaga kualitas buah.

Tujuan : Penelitian ini bertujuan untuk mengetahui pengaruh *edible coating* berbahan jeruk nipis dan kolang-kaling terhadap sifat fisik, organoleptik, kadar vitamin C, dan masa simpan buah klimaterik.

Metode : Penelitian ini menggunakan metode eksperimental dengan rancangan acak sederhana (RAS) yang terdiri dari empat perlakuan komposisi *edible coating* pada pisang ambon potong. Pengujian meliputi sifat fisik (warna, aroma, rasa, dan tekstur), uji organoleptik menggunakan uji *hedonik* oleh 20 panelis, uji kadar vitamin C dan pengamatan masa simpan buah. Data dianalisis secara deskriptif dan statistik menggunakan uji *Kruskal-Wallis* dan *Mann-Whitney*.

Hasil : Hasil penelitian menunjukkan bahwa *edible coating* berbahan jeruk nipis dan kolang-kaling berpengaruh terhadap sifat fisik, organoleptik, kadar vitamin C, dan masa simpan buah pisang ambon potong. Perlakuan D (10% jeruk nipis : 25% kolang-kaling) memiliki tingkat penerimaan terbaik. Perlakuan B (20% jeruk nipis : 15% kolang-kaling) menunjukkan kadar vitamin C tertinggi yaitu 21,2967 mg/100 g dan masa simpan buah hingga 12 jam.

Kesimpulan : *Edible coating* berbahan jeruk nipis dan kolang-kaling berpengaruh terhadap kualitas pisang ambon potong. Perlakuan D paling disukai panelis, sedangkan perlakuan B terbaik dalam mempertahankan kadar vitamin C dan memperpanjang masa simpan.

Kata kunci : *edible coating*, jeruk nipis, kolang-kaling, buah klimaterik, masa simpan.

**EFFECT OF EDIBLE COATING MADE FROM LIME (*Citrus aurantifolia*)
AND SUGAR PALM FRUIT (*Arenga pinnata* Merr.) ON THE PHYSICAL,
ORGANOLEPTIC, VITAMIN C CONTENT AND SHELF LIFE OF
CLIMATIC FRUITS**

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ABSTRACT

Background : Climatic fruits such as Ambon bananas have a high respiration rate, making them susceptible to browning, which reduces their quality and shelf life. One method of slow down deterioration is to use an edible coating. Limes are rich in vitamin C and citric acid, while sugar palm fruit contains polysaccharides that form a gel. The combination of these two ingredients has the potential to produce edible coatings that preserve fruit quality.

Objective : This study aims to determine the effect of edible coating made from lime and sugar palm fruit on physical properties, organoleptic, vitamin C content and shelf life of climatic fruit.

Methods : This research used experimental method with simple randomized design (SRD) consisting of four treatments of edible coating composition on sliced Ambon bananas. Variations. The Tests included physical properties (color, aroma, taste, and texture), then organoleptic tests using hedonic tests by 20 panelists, vitamin C content tests, and observations of fruit shelf life. The data were analyzed descriptively and statistically using Kruskal-Wallis and Mann-Whitney tests.

Results: The results showed that edible coatings made from lime and sugar palm fruit affected the physical properties, organoleptic properties, vitamin C content, and shelf life of sliced Ambon bananas. Treatment D (10% lime : 25% sugar palm fruit) showed the highest vitamin C content, namely 21,2967 mg/ 100 g, and a shelf life of up to 12 hours.

Conclutision: Edible coatings made from lime and sugar palm fruit affect the quality of sliced Ambon bananas. Treatment D was the most preferred by the panelists, while treatment B was the best at maintaining vitamin C content and extending shelf life.

Keywords : edible coating, lime, cholang-kaling, climatic fruit, shelf life.