

ANALISIS PERUBAHAN KUALITAS FISIK DAN KIMIAWI BUAH STROBERI (*Fragaria sp.*) SEGAR DENGAN PENAMBAHAN COATING LIDAH BUAYA (*Aloe vera L.*) SELAMA PROSES DISTRIBUSI DAN PENYIMPANAN

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INTISARI

Karakteristik buah stroberi adalah mudah rusak (*perishable*), buah *non* klimaterik, tidak memiliki lapisan kulit seperti buah jenis *berry* lainnya sehingga rentan akan kerusakan. Minimnya penanganan pascapanen stroberi menjadikan stroberi memiliki mutu yang lebih rendah dan umur simpan yang lebih pendek. Pelapisan buah stroberi segar (*edible coating*) dengan gel *Aloe vera* diharapkan dapat menghambat penurunan kualitas selama proses distribusi dan memperpanjang umur simpan.

Analisis kualitas fisik stroberi segar meliputi susut bobot, panjang, diameter, warna (L, a, b), tekstur kulit dan daging. Analisis mutu kimiawi meliputi kadar air, kadar gula, kandungan vitamin C dan total asam tertitrasi. Hasil pengujian dianalisis menggunakan *One Way ANOVA* (parametrik) untuk mengetahui perbedaan kualitas fisik dan kimia antara stroberi *coating Aloe vera* dengan proses distribusi dan tanpa proses distribusi.

Stroberi tanpa *coating Aloe vera* dengan distribusi cenderung memiliki kualitas fisik seperti susut bobot, diameter, *lightness*, tekstur kulit dan tekstur daging lebih baik dibandingkan dengan stroberi *coating Aloe vera* dengan distribusi, sedangkan stroberi *coating Aloe vera* dengan distribusi cenderung lebih bisa mempertahankan kualitas fisik seperti panjang, *redness*, *yellowness* sedangkan kualitas kimia meliputi kadar air, kadar gula, vitamin C, total asam tertitrasi. Stroberi *coating Aloe vera* dengan distribusi dan tanpa distribusi menghasilkan susut bobot, tekstur kulit buah, tekstur daging buah, vitamin C dan total asam tertitrasi yang berbeda nyata antar kedua perlakuan. Dalam hal ini proses simulasi pengkondisian lingkungan berpengaruh terhadap susut bobot, tekstur dan kandungan kimia stroberi terutama vitamin C dan total asam tertitrasi. Secara keseluruhan pelapisan stroberi dengan *Aloe vera* lebih dapat mempertahankan kualitas fisik dan kimia stroberi segar dibandingkan dengan tanpa pelapisan.

Kata kunci: *Aloe vera*, distribusi, *edible coating*, penyimpanan, stroberi

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QUALITY ANALYSIS OF CHANGES IN PHYSICAL AND CHEMICAL FRESH FRUIT STRAWBERRIES (*Fragaria sp.*) WITH ADDITION OF ALOE VERA (*Aloe vera L.*) COATING DURING DISTRIBUTION PROCESS AND STORAGE

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ABSTRACT

Characteristics of strawberry fruit are perishable, non climatic fruit, does not have a layer of skin like other types of berries so susceptible to damage. The lack of post-harvest handling of strawberries makes strawberries have lower quality and shorter shelf life. The coating of fresh strawberries (edible coating) with Aloe vera gel is expected to inhibit quality degradation during the distribution process and extend shelf life.

Analysis of physical quality of fresh strawberries include weight loss, length, diameter, color (L, a, b), skin texture and flesh. Chemical quality analysis includes water content, sugar content, vitamin C and total titrated acids. The test results were analyzed using One Way ANOVA (parametric) to determine the difference of physical and chemical quality between Aloe vera strawberry coating with and without the distribution process.

Strawberries without Aloe vera coating with distribution tend to have physical qualities such as weight loss, diameter, lightness, skin texture and flesh texture better than strawberry Aloe vera coating with distribution, while Aloe vera strawberry coating with distribution tend to be more able to maintain physical qualities such as length, redness, yellowness while the chemical qualities include water content, sugar content, vitamin C and total titrated acids. Strawberries Aloe vera with and without distribution resulted in weight loss, fruit skin texture, flesh texture, vitamin C and total titrated acids significantly different between the two treatments. In this case the simulation process of environmental conditioning effect on the weight loss, texture and strawberry chemical encounter, especially vitamin C and total titrated acids. Overall the strawberry coating with Aloe vera is more able to maintain the physical and chemical quality of fresh strawberries compared to no coating.

Keywords: Aloe vera, distribution, edible coating, storage, strawberries

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