

RINGKASAN

Buah strawberry merupakan salah satu komoditas produk hortikultura yang prospektif, namun cepat mengalami kerusakan selama penyimpanan. Pengawet alami diperlukan untuk memperpanjang masa simpannya. Penelitian ini menggunakan pengawet alami bagian dalam (empulur) batang dan daun kecombrang yang diekstrak menggunakan pelarut etanol. Penanganan pascapanen yang dilakukan adalah dengan pelapisan (*coating*). Tujuan penelitian ini adalah 1) menetapkan pengaruh ekstrak bagian kecombrang terhadap mutu buah strawberry; 2) menetapkan pengaruh metode *coating* terhadap mutu buah strawberry; 3) menetapkan pengaruh lama penyimpanan terhadap mutu buah strawberry; dan 4) menetapkan pengaruh interaksi perlakuan variasi tanaman kecombrang, metode *coating*, lama penyimpanan terhadap mutu strawberry ditinjau dari sifat kimia, mikrobiologi dan sensori.

Penelitian ini dilakukan menggunakan metode eksperimental dengan Rancangan Acak Kelompok (RAK) yang disusun secara faktorial dengan 3 kali pengulangan. Faktor yang diuji meliputi ekstrak bagian tanaman kecombrang yakni bagian dalam (empulur) batang (B1) dan bagian daun (B2); metode *coating* semprot (M1) dan celup (M2); lama penyimpanan hari ke-0 (L0), hari ke-3 (L1), hari ke-6 (L3). Variabel kimia dan mikrobiologi yang diamati meliputi kadar air, kadar abu, pH, total asam, gula reduksi, dan *total plate count* sedangkan variabel sensori yang diamati meliputi aroma (alkohol), tekstur, rasa manis, rasa asam dan kesukaan.

Hasil penelitian menunjukkan bahwa ekstrak bagian daun kecombrang memiliki kemampuan mempertahankan mutu buah strawberry yang lebih tinggi dibandingkan ekstrak bagian dalam (empulur) batang kecombrang terhadap variabel kimia, mikrobiologi dan sensori strawberry. Buah strawberry yang disimpan pada suhu ruang dengan perlakuan *coating* ekstrak kecombrang mampu bertahan selama 6 hari. Kadar air, kadar abu, pH, kadar total asam semakin menurun sedangkan kadar gula reduksi dan *total plate count* meningkat. Aroma alkohol dan rasa asam meningkat; tekstur, rasa manis dan kesukaan menurun. Penyimpanan hari ke-6 buah strawberry memiliki kadar air 88,16%; kadar abu 3,53%; pH 3; kadar total asam 0,05%; kadar gula reduksi 9,66%; *total plate count* $9,0 \times 10^3$ CFU/ml; aroma alkohol kuat; tekstur tidak keras; rasa tidak manis dan asam; kesukaan kurang disukai.

SUMMARY

Strawberry is prospective horticultural commodity product, but it is rapidly damage during storage. Natural preservative is necessary to extend its shelf life. This study used inner stem and leaves of kecombrang extracts using ethanol solvents. Post-harvest treatment on strawberry was done by edible coating. The purpose of this study were 1) to establish the effects of the extracts of kecombrang parts on the quality of coated strawberries; 2) to determine the effect of the coating methods on the quality of coated strawberries; 3) to determine the effect of storage time on the quality of strawberries; and 4) to establish an interaction effect of treatments of various kecombrang parts, coating method, duration of storage on the quality of coated strawberries in terms of the chemical, microbiological and sensory characteristics.

This research was conducted using the experimental method with Randomized Design (RBD) arranged as factorial with three replications. Factors examined included extracts of plant parts of kecombrang, the inner stem (B1) and the leaves (B2); spraying coating method (M1) and deeping method (M2); storage time of day 0 (L0), day 3 (L1), the 6 day (L3). The chemical and microbiological observed were moisture content, ash content, pH , total acid content, reducing sugar content, and total plate count while sensory variables including alcohol flavor, texture, sweetness, acid, and hedonic value of strawberry.

The results showed that the extract of kecombrang leaf had the ability to maintain the quality of coated strawberries higher than the inner stem of kecombrang in terms of chemical, microbiological and sensory characteristics. Strawberries stored at room temperature with kecombrang extract coating treatments lasted for 6 days. Moisture content, ash content, pH, total acid content decreased while reducing sugar and total plate count increased. The aroma of alcohol and sour taste improved; as well as texture, sweetness and hedonic value of coated strawberries. Strawberries storage of 6 days had a water content of 88.16%; ash content of 3.53%; pH 3; total acid content of 0.05%; 9.66% reducing sugar; total plate count of 9.0×10^3 CFU/ml; strong aroma of alcohol; the texture was not hard; sweet and sour taste were less.