

**ANALISIS PENGARUH PERLAKUAN KADAR OKSIGEN DAN SUHU RENDAH DENGAN BERBAGAI MEDIA HIDROPONIK TERHADAP DEGRADASI KUALITAS BUAH STROBERI SEGAR (*Fragaria x Ananassa* var. *Kellybright*)**

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**INTISARI**

Pada kondisi lingkungan tropis yang bersuhu tinggi, buah stroberi cepat mengalami degradasi mutu, sehingga memiliki umur simpan yang pendek. Laju respirasi buah yang tinggi merupakan salah satu penyebabnya. Penurunan kadar oksigen 5% dan 10% diketahui mampu menurunkan laju respirasi stroberi selama penyimpanan dan mempertahankan atribut mutu kimia dari stroberi. Penelitian ini bertujuan untuk menganalisis degradasi atribut mutu fisik dan kimiawi stroberi segar hidroponik setelah diberikan perlakuan kadar oksigen rendah. Analisis mutu fisik yang diuji meliputi susut bobot, warna, dan tekstur. Analisis mutu kimiawi yang diuji meliputi kadar air, total padatan terlarut, vitamin C, dan total asam tertitrasi. Hasil pengujian dianalisis secara statistik dengan uji *two way anova* atau Kruskal-Wallis. Hasil penelitian menunjukkan bahwa perlakuan kadar oksigen rendah 5% merupakan perlakuan terbaik dalam menghambat terjadinya degradasi mutu pada parameter *redness*, *yellowness*, kadar air, total padatan terlarut, vitamin C, dan total asam tertitrasi. Umur simpan stroberi dengan perlakuan kadar oksigen 5% pada suhu ruang adalah selama 5 hari, dan pada suhu rendah adalah selama 13 hari. Biaya kualitas dari penyimpanan stroberi dengan perlakuan kadar oksigen 5% dengan jumlah stroberi sebanyak 1200 *pack* adalah sebesar Rp3.640,65 per *pack* atau Rp3.640,65 per 100 gram stroberi.

Kata kunci: mutu fisik dan kimiawi, oksigen rendah, stroberi

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**EFFECT OF LOW OXYGEN AND LOW TEMPERATURE  
TREATMENT FROM VARIOUS HYDROPONICS MEDIA ON  
DEGRADATION QUALITY OF FRESH STRAWBERRIES (*Fragaria  
x Ananassa* var. Kellybright)**

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**ABSTRACT**

In tropical environments, due to high-temperature the quality of strawberries are rapidly degraded and have a short shelf life. High fruit respiration rate is one of the causes. A decrease in oxygen levels of 5% and 10% can reduce the rate of strawberry respiration during storage and maintain the chemical quality attributes of strawberries. This study was aimed to analyze the degradation of the quality and chemistry of fresh hydroponic strawberries after being given low oxygen levels. Analysis of physical quality released with weight loss, color and texture. Analysis of approved chemical quality of air, total dissolved solids, vitamin C, and total titrated acid. The test results were analyzed by two-way anova or Kruskal-Wallis. The results showed that the treatment of 5% low oxygen content was the best treatment in inhibiting the occurrence of quality degradation in the parameters of redness, yellowness, water content, total dissolved solids, vitamin C, and total titrated acid. The shelf life of strawberries with 5% oxygen content at room temperature is for 5 days, and at low temperatures for 13 days. The cost of quality of strawberry storage with 5% oxygen content treatment with 1200 packs of strawberries amounted to Rp3.640,65 per pack, or Rp3.640,65 per 100 grams of strawberries.

*Keywords: low oxygen, physicochemical properties, strawberry*

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