

عنوان مقاله:

Effect of storage conditions and packaging material on postharvest quality attributes of strawberry

محل انتشار:

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خلاصه مقاله:

Purpose: Strawberry (*Fragaria × ananassa*) is highly perishable fruit with a limited postharvest life at room temperature and is vulnerable to postharvest decay due to its high respiration rate, environmental stresses and pathogenic attacks. **Research method:** To increase the postharvest life of strawberries, a combination of packaging material (polyethylene and perforated polyethylene) along with control and storage conditions {zero energy cool chamber (ZECC) and ambient conditions in laboratory} were tested. **Main findings:** Mass loss (1.59%) and internal temperature (22.24°C) were significantly reduced while shelf-life (more than 3 days) was enhanced in ZECC as compared to ambient conditions in laboratory with 6.46% mass loss, 23.04°C internal temperature and less than 3 days shelf-life. Packaging material significantly influenced mass loss (%) and electrical conductivity (S/m) of strawberry juice irrespective of its interaction with storage conditions and storage durations. Maximum mass loss (9.11%) and EC (3.74 S/m) were recorded in control samples while, minimum mass loss (1.24%) and EC (3.52 S/m) was recorded in polyethylene enclosed fruit. Irrespective of storage conditions and packaging material pH, TSS, titratable acidity (%) and ascorbic acid (mg/100 ml-1) decreased while electrical conductivity (S/m) increased during storage. **Limitations:** In future study storage duration should be extended by adding more removals to get clear difference in fruit quality and shelf-life under various treatments. **Originality/Value:** In conclusion ZECC can be used for short term storage of strawberry.

کلمات کلیدی:

evaporative cool chamber, mass loss, perforated polyethylene, postharvest life, strawberry

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