

Abstract:

Edible coatings provide a semi-permeable barrier to gases and water vapor, which creates a modified atmosphere into the fruit and delays dehydration. Cherries offer good tolerance to high levels of CO₂. Therefore, they can be benefited by the use of edible coatings. Performance depends on coating composition. Therefore, the objective of this work was to study the effect of coating composition on postharvest quality of cherries. Coatings consisted on 33% locust bean gum, 33% lipid and 33% plasticizer. Lipids tested were carnauba wax and shellac. Plasticizers were oleic acid and glycerol. Fruits were stored at 1°C and 90% RH. Samples were analyzed every week, for a total of four, after conditioning one day at 20°C and 85% RH, which simulates retail conditions. Coatings reduced the deterioration index in the fruits. Shellac-glycerol coating offered the most effective barrier to water vapor and gases at the end of the storage, giving lower weight loss and higher ethanol content. Coatings prepared with oleic acid offered better moisture barrier during the two first storage weeks getting worse toward the end of the storage time. This might be due to an improvement in the integrity of the shellac coatings by the addition of glycerol.