

Abstract:

The effect of storage time and prevailing storage conditions on the phenolic content and the polyphenol oxidase (PPO) activity of 'Rocha' pear were evaluated throughout 9 months of storage. Chlorogenic acid was the dominant phenolic compound quantified in the pulp. Storage time and conditions influenced the acid content and the PPO activity, but a clear tendency could not be observed during storage. By 7 months of storage, the chlorogenic acid content was higher in pears stored under 3% (v/v) O₂ + 1.5%(v/v) CO₂ than under the other storage conditions. By 9 months of storage, the lowest content of chlorogenic acid was found in pears stored under air. Storage under high CO₂ levels was associated with high PPO activities, so it may be a limiting factor in attempts to extend the storage life of 'Rocha' pear.