

# Influence of biodegradable packaging on the shelf life of strawberries

D. Seglina, I. Krasnova, S. Strautina, I. Kalnina, I. Gailite, L. Dukalska

Acta Horticulturae 981: 665-670. 2013.

---

## Abstract

Several factors including variety, ambient temperature in the warehousing and packaging material influence the quality of fresh strawberries during storage. Experiments were carried out at the Latvia State Institute of Fruit Growing, year 2010. The impact of several biodegradable packaging materials on equilibrium modified atmosphere formation on extension quality (anthocyanins, C vitamin content, firmness, mass losses, colour changes) was analysed of fresh strawberries and compared during storage. Four types of packaging materials were tested: polylactic acid (PLA) containers (volume 360 mL) with non hermetical lids, round starch trays (available at the local supermarket) inserted in hermetically sealed pouches made from PLA with thickness of 30  $\mu\text{m}$ , VC999 Biopack PLA trays (187 x 137 x 25 mm), inserted in hermetically sealed pouches made from VC999 PLA lidding film coated with a barrier of pure silicon oxide, to obtain equilibrated atmospheres inside packaging. Round starch trays covered with polypropylene net were used as a control. Samples were tested within 9 storage days at +2 and +12°C temperature and fluorescent lighting similar like at the supermarket showcases. The overall results expressed that strawberry quality can be maintained effectively at least for 6 days using VC999 Biopack PLA trays and lidding films with barrier properties.