

Abstract:

The ascorbic acid content (AAC) in new Israeli strawberry varieties Malah, Tamar, Yael, Belha and Miri was studied in relation to fruit storage conditions. The Malah cv. tended to have the highest AAC among the varieties tested. The AAC in Malah strawberries slightly declined during 5 days of cold storage at 1°C. This decline was prevented by modified-atmosphere (MA) packaging of fruit in Xtend® liners. Further sharp decreases of AAC occurred both in MA-stored and control strawberries after transfer to shelf life conditions (18°C) when the liners were opened. Strawberries stored for 12 days in controlled atmosphere with 5 kPa O₂ and ≤ 0.5 kPa CO₂ and for 2 additional days at shelf life conditions had higher AAC than the control fruit stored in air. The AAC in strawberries kept in controlled atmospheres with 15 kPa CO₂ did not differ significantly of that in the control, irrespectively of oxygen level in the atmosphere.