Abstract:

Ripening technology for ‘Bartlett’ pears was examined to improve the quality of the fruit for the consumer market. Maturity indices were measured at harvest, then fruits were stored in a low-oxygen atmosphere (O2 1.5% + CO2 1.5%) at -0.5 ° C for 105 days. From the moment of harvest some fruit lots were stored under different temperature conditions (20 °C or some days at 20 °C followed by storage at a temperature of 10 °C). Levels of fruit softening and ethylene production were analysed during the shelf-life period. Once the fruit had reached the ripening stage for consumption, the chemical-physical parameters were noted and a sensory evaluation was performed. The best ‘Bartlett’ pear quality was seen when the fruit was conditioned at a temperature of 20 °C immediately after harvest. The preference indicated for fruits matured at 20 °C remained quite stable up to a storage period of 60-90 days. During storage for up to 90 days, the ideal ripening stage for consumption was reached after 6-8 days at a temperature of 20 °C. During storage for periods longer than 90 days the fruit softening process was slower and a decline in the organoleptic properties was observed. By storing the fruits at 10 °C after a period of 3 days at 20 °C, it was possible to achieve a suitable qualitative standard and prolong shelf-life by at least 3 days.