

Abstract:

The harvested apples cv. Elstar were taken into storage within a few hours and they were stored under different atmosphere combinations [(CO₂:O₂) 0:21 (=normal atmosphere (NA)-control), 3:1, 3:1.5, 3:2 and 3:2.5] at 0±0.5°C and 90-95% relative humidity (RH), and then they were kept at room conditions (20±2°C and 60-65% RH) for 5 days in the same conditions in two different years. Physical and biochemical analyses [weight loss (%), respiration rate (mg CO₂/kg h), titratable acidity (TA) (%), pH, water soluble solids (WSS) (%), fruit flesh firmness (FFF) (lb), pectin esterase (PE) activity (ml/h), fruit skin colour (L, a, b)] were determined in the samples taken at certain intervals during storage period and at the end of shelf life. At the end of research, the most successful results were obtained from 3:1.5 and partially 3:2 controlled atmosphere (CA) treatments.