

### Abstract:

Markers of quality retention: colour, texture, browning, texture related enzymes and sensory properties, were analysed during storage. The use of high temperatures (50°C) showed a positive effect on enzymes related to quality maintenance. It reduced the activity of the browning-related enzymes polyphenol oxidase and peroxidase but it increased the activity of pectin methyl esterase, an enzyme involved in the maintenance of texture. High calcium lactate concentrations (3 %) produced a reduction in the respiration rate of the salad-cut lettuce during storage, but also a loss of luminosity and greenness ( $a^*$ ). The use of high temperatures and intermediate calcium lactate concentrations (1.5 %) proved to be the best washing treatment to maintain the quality of salad-cut lettuce over 10 days storage. These conditions (50 °C and 1.5 % calcium lactate) gave higher freshness scores and lower browning scores than conventional chlorine treatment when evaluated by a sensory panel.