

### **Abstract**

The main problem for storage of most peach varieties is the development of physiological disorders. Peach fruits are exposed to low temperatures for preservation. Chilling injury or internal breakdown occurs at temperatures above freezing and below 10°C. The resulting symptoms include tissue browning and wooliness that limit shelf life and a broader marketing of the fruit. Different peach varieties vary greatly in susceptibility to chilling injury. We evaluated the possible use of different CA, MA and treatments with N<sub>2</sub>O and 1-MCP on the "Mestret" variety stored at 1°C. Samples were taken out of storage after 40 and 60 days and placed at 20°C to simulate shelf life for 3 days. We studied also the effect of different CA on the variety "Merry O'Henry". Samples were taken out after 30 and 45 days of storage. Several physiological parameters were measured such as CO<sub>2</sub> and ethylene production, ACC content ACC oxidase activity, PPO and POD activities, as well as quality parameters, including colour of skin and pulp. Measurements were made after storage at 1°C and after 3 days at 20°C. The effects of the various treatments on quality of fruit after different periods will be discussed