

**Title** Aroma volatile compounds influencing sensory acceptability of 'Golden Reinders' apples after ULO storage

**Author** R. Altisent, J. Graell, I. Lara, M.L. López and G. Echeverría

**Citation** ISHS Acta Horticulturae 858:225-228. 2010.

**Keyword** air atmosphere; CA; consumers; *Malus × domestica*

#### **Abstract**

The aim of this work was to assess if an extra period of time in AIR after storage in Ultra Low Oxygen (ULO) atmosphere may be helpful for the regeneration of the emission of volatile compounds, and to evaluate the influence of this regeneration on consumer acceptability of 'Golden Reinders' apples. Fruit were stored for 19 or 30 weeks at 1°C and 92% RH under ULO (1 kPa O<sub>2</sub> : 1 kPa CO<sub>2</sub>) or under ULO plus 2 or 4 weeks in AIR (ULO+2w or ULO+4w, respectively). Emission of volatile compounds and consumers' acceptability were analysed after storage plus 7 d at 20°C. Data were subjected to principal component analysis (PCA) in order to characterise fruit after storage. The biplot of PC1 vs. PC2 for this model showed that acceptability was correlated to specific aroma compounds, namely hexyl octanoate, ethyl acetate and ethyl 2-methylbutanoate, whose odour descriptors include "fruity" and "ripe apple".