

#### Abstract:

For many years apple volatile compounds have been studied. The current research evaluated aroma production from 'Gala' apples maintained under different storage atmospheres (CA, air). The cultivar 'Gala' has a good aroma when ripe but loses flavour during storage. Both after harvest and after storage fruit were maintained at 20°C, and volatiles analyzed until ethylene production from fruit had clearly decreased. The methods used for this research included static headspace plus GC analysis for ethylene, dynamic headspace plus GC for the other volatiles on intact fruits and GC olfactometry (GCO) for determination of the main contributors to the aroma profile of Gala. During the post-storage period at 20°C major differences were found in the main classes of volatiles, namely esters and alcohols, among the different storage techniques. The importance of these storage effects on the aroma contribution of Gala was evaluated.