Abstract:

The aroma of apples is of considerable importance in the quality definition of fruit. Volatile compounds produced by 'Renetta Canada' apples from four different Aosta Valley locations (A, B, C, D) were analysed at harvest and during controlled atmosphere (CA) storage using a SPME-GC/MS method. The SPME technique allowed the determination of 12 esters (6 butanoic acid esters), -farnesene and estragole in trace amounts. 'Renetta Canada' fruit aromatic profile, that is characterised by a strong prevalence of butanoic acid esters was highly reduced in CA, after even a short period of storage. Fruit from different growing locations showed different quantities of volatiles at harvest that became more evident when fruit where left in RA at 15 °C for 22 days. In CA conditions the influence exerted by the different growing locations were still evident even if less marked.