

#### Abstract:

Based on the concept of dynamic CA-storage, the effect of decreasing oxygen levels in the storage atmosphere has been assessed for 'Idared' apples, taking into account the harvest date, storage duration and storage conditions of the sample fruit prior to measurements (regular atmosphere (RA) or low oxygen (LO)-conditions at 4°C). For all sample fruit tested, an anaerobic compensation point (ACP) could be detected, which is the O<sub>2</sub> concentration below which CO<sub>2</sub> production increased significantly. Level of CO<sub>2</sub> production below the ACP was dependent on rate of oxygen reduction, degree of maturity, storage duration of the sample fruit and the previous storage conditions. For fruit stored under RA-conditions, the ACP shifted towards higher oxygen levels after 5–9 months of storage.