

# Effect of active and passive modified atmosphere packaging of sweet cherry

J.P. Zoffoli, J. Rodriguez

Acta Horticulturae 1020: 115-119. (2014)

---

## Abstract

Modified atmosphere packaging (MAP) has been widely used to extend the postharvest life of sweet cherry. Under passive MAP, the new atmosphere around the fruit is generated by the fruit respiration starting from 21 kPa O<sub>2</sub> and 0.03 kPa CO<sub>2</sub>. Under active MAP, the atmosphere is generated by the respiration of the fruit starting from an atmosphere produced by vacuum and gas mixture of CO<sub>2</sub>/O<sub>2</sub> of 40 kPa CO<sub>2</sub> and 60 kPa N<sub>2</sub>. 'Sweetheart' fruit were harvested, selected from a packing line and packed in three commercial modified atmosphere bags, including passive and active systems. Fruit packed in a non-sealed bag was left as control. CO<sub>2</sub> and O<sub>2</sub> concentrations inside of active and passive MA bags were similar and varied between 6 to 9 kPa and 10 to 13 kPa after two days of packaging, respectively. Steady state CO<sub>2</sub> and O<sub>2</sub> concentration was not dependent on the initial modification of the atmosphere in the MA bags evaluated for sweet cherry. All MAP systems evaluated reduced the incidence of decay similarly compared with control bags; however, the incidence of decay was not controlled after three days at 20°C.