

# Effect of hot air treatment on minimally processed cauliflower

A. Miceli, F. Vetrano, C. Romano

Acta Horticulturae 1005: 309-314. 2013.

---

## Abstract

The request of minimally processed vegetable is continuously increasing, and there is a growing interest for new fresh cut products. Cauliflower, as other cabbages, is highly appreciated for its nutritional value due to the good content of vitamins, antioxidants and anti-carcinogenic compounds. It is suitable to be used as a minimally processed vegetable, but harvesting and the following processing can cause a severe stress determining the appearance of accelerated senescence symptoms. The aim of the present work was to investigate the effect of hot air treatment and cold storage on minimally processed green cauliflower. Fresh-cut cauliflower florets put in sealed PE bags were treated at 48°C for 180 min and then stored at 4°C for 21 days. During the storage period, weight loss, colour, firmness, soluble solids, titratable acidity and overall quality were evaluated. Non treated fresh-cut cauliflower maintained soluble solid content, good firmness and showed low weight loss, but marketability was limited to 14 days, mainly due to the browning occurring in the cut zones. The hot air treatment increased weight loss during storage, but strongly reduced colour changes of minimally processed cauliflower. This led to prolonged shelf life up to 3 weeks.