

#### Abstract:

'Cardoncello' mushroom is typical of the Mediterranean region, with a peculiar taste and texture, which makes it very successful with consumers. Increasing attention is paid to postharvest handling procedures including optimal conditions to obtain high-convenience fresh-cut products. In order to study potential storage life, fresh-cut 'Cardoncello' mushroom were held at 0 °C (which represents best storage temperature for whole mushrooms) either in air or in 3% O<sub>2</sub> + 20% CO<sub>2</sub> controlled atmosphere (CA), for 24 days. Slices in CA showed better appearance, as measured by an overall score and by a colormeter, and firmness than slices in air. None of the treatments showed visible presence of microbial growth, although CFU counts showed a slight increase for mesophilic and psychrophilic bacteria and yeasts for slices kept in air while it showed no increase or a slight decrease for samples in CA. Non substantial change was observed for moulds CFU count. Results show a good potential for fresh-cut 'Cardoncello' mushrooms, which exhibited optimal quality characteristics for more than 3 weeks after cutting.