

Abstract:

The ability of *Escherichia coli* O157:H7 inoculated on artichokes to survive during the preparation stages has been studied. Peeling, cutting and disinfecting operations only managed to reduce by 0.8 log units the populations of *E. coli* O157:H7. The rinse with an organic acid solution was more effective than the rinse with tap water for the elimination of the pathogens. Given the possibility this pathogen being present on artichokes in the packaging stage, its behavior during the storage of minimally processed artichokes was investigated. To this aim, batches of artichokes inoculated with *E. coli* O157:H7 were packaged and stored under refrigeration for 16 days. During this period, the equilibrium atmosphere composition, natural background microflora (mesophilic, psychrotrophs, anaerobic and faecal coliforms) and inoculated pathogen evolution were analyzed. The inoculation with the pathogen had not any effect on the final composition atmosphere (10% O₂, 13% CO₂) or on the evolution of the natural background microflora of artichoke. *E. coli* O157:H7 was able to increase its counts by 1.5 log units in the inoculated batch during the storage period. The behaviour of this pathogen proved the poor efficacy of MAP to control it. Thus, it is necessary to ensure the absence of this pathogen on artichokes before packaging.