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Carla Barbosa, M. Rui Alves, Susana Rocha, M. Beatriz P.P. Oliveira

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**Modified Atmosphere Packaging of precooked vegetables: effect on
physicochemical properties and sensory quality**

Carla Barbosa ^{a,b}, M. Rui Alves ^{a,b}, Susana Rocha ^a, M. Beatriz P.P.* Oliveira ^b

^a IPVC-ESTG (Polytechnic Institute of Viana do Castelo - Escola Superior de Tecnologia e Gestão), Av. do Atlântico, s/n, 4900-908, Viana do Castelo, Portugal.

^b REQUIMTE, Dep. Chemical Science, Faculty of Pharmacy, University of Porto, Rua Jorge Viterbo Ferreira, 228, 4050-313, Porto, Portugal.

* Corresponding author Tel:+351 220428640 Fax:+351 226093390 Email address: beatoliv@ff.up.pt (Beatriz Oliveira).

Abstract:

This study aims at verifying the effect of three modified atmosphere packaging (MAP) conditions, all with high CO₂ and residual or low O₂ contents (%O₂/%CO₂: 0/40; 2.5/40 and 2.5/60), on the quality preservation of several species of precooked vegetables (cabbage, carrots, green beans and bell peppers). The study was carried out for different storage periods (up to 28 days and 6 sampling periods). Physicochemical parameters (pH, acidity, moisture and ash contents, antioxidant activity, colour, and texture), microbial growth, organoleptic properties and consumer acceptability were assessed. Concerning physicochemical parameters and microbial growth only slight changes without any consistent tendency were observed. This was also confirmed by the trained panel that could not discriminate samples with different storage times. Best preservation conditions were obtained with 0%O₂/40%CO₂, promoting a shelf life extension of almost 12 days more comparing to commercial conditions presently used.

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