

Title Effect of gamma irradiation on *Listeria ivanovii* inoculated to iceberg lettuce stored at cold temperature
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Abstract

A low-dose gamma irradiation considerably reduced the total plate counts, psychrotrophic bacteria, lactic acid bacteria, and inoculated *Listeria ivanovii* on shredded iceberg lettuce. The total plate count of the lettuce irradiated at 1.0 kGy was reduced by 3.38 log₁₀ cfu/g on 0 storage day and to below the limit of detection (<2 log₁₀ cfu/g) as the cold storage was extended. Irradiation at 0.5 kGy effectively reduced the psychrotrophic bacterial counts and lactic acid bacterial counts in the lettuce to below the limit of detection (2 log₁₀ cfu/g). Irradiation at 1.0 kGy reduced *L. ivanovii* inoculated onto the shredded iceberg lettuce to below the limit of detection. The results showed that an irradiation at 1 kGy eliminates the bacterial contamination from the lettuce sample without any sensorial quality defect.