

Title Microbiological quality of ready-to-eat minimally processed vegetables consumed in Brazil

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Abstract

Minimally processed leafy vegetables are ready-to-eat (RTE) products very attractive to consumers looking for healthy and convenient meals. However, the microbiological safety of these foods is of special concern due to the absence of lethal treatments during processing. In the present study, indicator microorganisms, *Listeria* spp. and *Salmonella* spp. were determined for 162 samples of minimally processed leafy vegetables commercialized in Brazil. Psychrotrophic aerobic bacterial populations >5 log CFU/g were found in 96.7% of the samples, while total and thermotolerant coliforms were detected respectively in 132 (81.5%) and 107 (66%) of vegetables analyzed. *Escherichia coli* was present in 86 (53.1%) samples analyzed and *Listeria* spp. and *Salmonella* spp. were detected respectively in 6 (3.7%) and 2 (1.2%) samples. These results indicate the need of implementing quality programs in the production chain of RTE vegetables to improve shelf life and microbiological safety.