

Title Disinfection efficacy of slightly acidic electrolyzed water on fresh cut cabbage
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Abstract

A chlorine sanitizer that gives high disinfection efficacy with minimal available chlorine has a potential to be an environmentally-friendly method for disinfection of vegetables. In the present study, disinfection efficacy of slightly acidic electrolyzed water (SIAEW: pH 6.1, 20 mg/L available chlorine) produced by electrolysis for fresh cut cabbage was compared to that of sodium hypochlorite solution (NaOCl solution: pH 9.6, about 150 mg/L available chlorine). SIAEW reduced about by 1.5 log CFU/g for total aerobic bacteria and 1.3 log CFU/g for moulds and yeasts, compared to fresh cut cabbage before dipping. Statistical analysis of the results showed that the disinfectant efficacy of SIAEW was equivalent to or higher than that of NaOCl solution. Results also indicated that SIAEW under shaded and sealed conditions could keep its available chlorine during storage.