Title	The Use of Peracetic Acid for Microbial Control of Minimally Processed Cheiro Verde
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Abstract

Saving time and adopting healthy habits are some of the reasons to explain the increasing consumption of vegetables minimally processed. They must be free of pathogenic microorganisms and a disinfecting step is considered a critical point for the reduction of microbial load. Therefore, the main objective of this study was to evaluate the efficacy of peracetic acid as a chlorine substitute. A mixture of parsley and welsh onion (1:1) was used since it was the most contaminated vegetable analyzed in previous work. Tests were performed at 3 concentration levels (60, 80, 100 ppm) and 3 exposure times (5, 10, 15 min) with 3 repetitions. A 15 min treatment with tap water was used as control. The treatment efficiency was evaluated by the number of decimal reductions of microbial population (total and fecal coliforms, molds and yeast) and by *Salmonella* detection. The results showed that concentration less than 100 ppm and time less than 10 min was not effective. Therefore, logarithm cycle reductions of 2.7 and 3.0; 1.5 and 2.5; 1.0 and 1.5 were obtained for molds and yeast; total coliforms; fecal coliforms at 10 and 15 min treatments. In relation to the use of sodium hypochloride (120 ppm for 15 min) the reductions were about 0.4, 1.0 and 1.0 logarithm cycles for molds and yeasts, total and fecal coliforms, repectively. Thus, it is necessary to use at least 10 min treatment at the concentration of 100 ppm in order to get good results. At the 15 min treatment peracetic acid was more effective than sodium hypochloride. *Salmonella* was not detected.