Title Effect of gamma irradiation on quality-maintaining of fresh-cut lettuce

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Abstract

The effects of irradiation on microorganisms and physiological quality of fresh-cut lettuce were evaluated during storage at 4 °C. The total bacterial counts on fresh-cut lettuce irradiated with 1.0 kGy were reduced by the order of 2.35 Log CFU/g, and the total coliform group were lowered to less than 30 MPN (most probably number)/100 g. The polyphenoloxidase activity of fresh-cut lettuce was significantly inhibited by irradiation. In addition, the loss of vitamin C of fresh-cut lettuce irradiated with 1.0 kGy was significantly ($\alpha = 0.05$) lower than that of non-irradiated. The best treatment of maintaining quality of fresh-cut lettuce appeared to be 1.0 kGy irradiation.