

Title Ginger sprouting as affected by 1-methylcyclopropene (1-MCP)
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Abstract

The major problem of ginger is sprouting during storage. This sign of quality loss is appeared rapidly at high temperature. A reason of sprouting is not clear, however many studies demonstrated that ethylene is the principal involvement on sprouting. Thus the elimination of ethylene action might be effective to control the sprouting. 1-MCP is an inhibitor of ethylene perception and widely used for extending storage life of fresh produces. This research aimed to study the effect of 1-MCP on sprouting of ginger. Ginger fumigated with 250,500 and 1000ppb 1-MCP for 12 h compared to the non-treated sample was studied. All samples were kept at $28\pm 3^{\circ}\text{C}$ and $75\pm 5\%$ RH for 9 weeks. The result revealed that 250 ppb 1-MCP was the most effective on delaying sprout, shoot length, respiration rate and weight loss as compared to other treatments. In contrast, 1-MCP above 500 ppb induced respiration rate and weight loss of ginger.