Abstract

Pineapple is one of the most appreciated fruit by Brazilian's consumers. As an alternative to fresh market, the use of minimally processed (MP) pineapple has been expanded to restaurants and supermarkets. Minimally processed pineapple offers convenience and reduces wastage to retail consumers. On the other hand, fruit production systems need to ensure the peak quality and safety microbial standards for minimally processed products. The Good Agricultural Practices (GAP) system has been used as a tool that provides further assurance that produce meets the highest health and safety standards. In addition MP products are vulnerable to the adverse effects of ethylene. The ethylene antagonist l-methylcyclopene has been particularly useful for attenuating ethylene adverse effects in plant tissues. The objective of this work was to evaluate the quality aspects of 'Perola' pineapple harvested grown under GAP and traditional management systems in the Santa Rita County, Paraiba State, Brazil, treated with l-methylcyclopropene, and minimally processed in slices. Minimally processed pineapple was stored under modified atmosphere packaging by a 12μm thick PVC film at 3 ± 0.5ºC during 8 days. Total soluble solids (TSS), titratable acidity (TA), vitamin C, fresh mass loss pulp browning (1 to 9, scale), and total coliform counts were evaluated. L-MCP treatment provided lower mass loss and resulted in lower pulp browning as compared to control, mainly when associated to GAP production system. L-MCP treatment did not influence microbial quality of MP pineapple. In contrast, coliform counts were significantly lower (P>0.05) for pineapple grown under GAP as compared with fruit from conventional management system; however mold and yeast count did mot differ among treatments. Collectively the results lead to conclusion that MP pineapple from fruit grown under GAP system showed superior microbial quality as compared with MP from fruits grown under traditional system; l-MCP treatment provided better general appearance to minimally processed

' Perola' pineapple.