

Title Microbial quality of minimally processed 'Perola' pineapple grown under good agricultural practices system

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Abstract

Pineapple is one of the most appreciated fruit by Brazilian's consumers. Despite its extensive production in Northeastern Brazil, trade has been limited to the domestic market mostly because current production systems do not meet the required safety standard for international markets. 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. The objective of this work was to evaluate microbial quality aspects of Perola pineapple harvested in the maturity stage green, grown under GAP and traditional management systems in the Santa Rita County, Paraíba State, Brazil. The experimental design was the completely randomized, with three replications of 12 fruits/production system, each harvest period. Total coliform counts were significantly lower ($P>0.05$) for pineapple grown under GAP as compared with fruit from conventional management system. No fecal coliform, *Salmonella* or *Staphylococcus aureus* were detected in pineapple produced under GAP system; however mold and yeast counts did not differ between treatments. Collectively the results lead to conclusion that pineapple grown under GAP system showed superior microbial quality as compared with fruits grown under traditional system, probable due to rational use operational and of agricultural resources.