

Title Produce surface characteristics affect product quality and safety
Authors H. Wang, H. Feng, Y. Luo, A. Zhang
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Abstract

The surface characteristics of fresh-cut fruits and vegetables vary greatly among produce types, varieties, maturities and growing conditions. Studies have shown that surface conditions of produce significantly affected adherence, attachment, and reduction of pathogens during wash process. Using confocal laser scanning microscopy, the surface roughness of apples, avocados, and cantaloupes was estimated and compared with the reduction rate of pathogen. It was found that the surface roughness played an important role in pathogen reduction rate during produce wash with the lowest roughness/highest pathogen reduction rate obtained on apples and the highest roughness/lowest pathogen reduction rate obtained on cantaloupes.