

Title Challenges facing the industry and scientific community in maintaining quality and safety of fresh-cut produce

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Abstract

Fresh-cut produce industry, one of the fastest growing food industries in the United States, has been rapidly expanding in the last two decades. The flourishing of the fresh-cut produce industry is attributable to the high value placed by modern consumers on foods that are fresh, nutritious, and convenient. However, the recent food borne illness outbreaks associated with the consumption of packaged fresh-cut produce have also made bold headline news worldwide. Unlike the intact fruits and vegetables, fresh-cut produce sustains substantial tissue injury during processing, and is thus more susceptible to microbial growth and quality deterioration; unlike traditionally processed food, fresh-cut products consist of living tissues and are processed and marketed as “ready-to-eat” yet without a microbial killing step. In addition, fresh produces grow in the open field, and contamination with human pathogens can potentially occur anywhere from farm to table. These factors reduce the shelf-life of fresh-cut produce and increase the risk of food borne illness. This paper discusses the challenges facing the industry and scientific community. Issues involved in maintaining both quality and safety of fresh-cut produce, their current status and future research directions will be emphasized.