

Title Fresh-cut produce: postharvest critical issues
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Abstract

Recently, there has been a boom of fresh-cut produce all over the world. According to a 9-year-long trend, at the end of 2005 the USA fresh-cut produce sales should be \$12 billions, with an increase of +25% respect to 2003, indicating the sector as the most in expansion of all the fruit and vegetable market. Fresh-cut industry is rising in many European countries with UK, France and Italy as share leaders. UK is the leader of the sector, supplying 120,000 tons of fresh-cut salads in 2004, equal to 700M€; France follows with 77,000 tons considering fresh-cut and grilled/steamed vegetables. In Italy, after a slow beginning the sales exceeded 42,000 tons of production corresponding to 375M€ in 2004. Postharvest phases of fresh-cut vegetables are directed to prepare the ready-to-eat products and to prolong their shelf-life, preserving food sensory and nutritional quality. These living products require special care during the whole handling process, from harvest to consumption, to guarantee premium quality and ensuring food safety. Processing fresh-cut produce implies living part manipulations, which trigger degradation metabolic processes and microbial activities leading to shelf-life reduction. Leafy vegetables, particularly baby leaf salads, are consumer most favourite, but they are very delicate and susceptible to process manipulations. Thus, controls and innovation technology implementations must be pursued to optimize the whole processing procedures throughout the chain. Critical stages to be improved include early cold chain implementation, starting from harvesting up to the retailer store, storing and shipping conditions prior to reach the processing-house, logistics, processing inputs. Lack of National legislations in most of EU countries and of EU legislations limits innovation process research and implementation.