

Title Effect of ripening stage and storage period of fresh tomatoes on the quality of fresh-cut product

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Abstract

We examined the effect of ripening stage and storage period of fresh tomatoes on the quality of fresh-cut product. Tomato fruits (*Lycopersicon esculentum* Mill. cv. Medison) were harvested at three different ripening stages (breaker, pink, red), stored for 2 weeks at 5°C, fresh-cut processed, and then stored at 5°C. Fresh-cut products were evaluated for firmness, SSC, titratable acidity, colour, sensory properties, and microbial growth. Chilling injury, water soaking in pericarp of fresh tomatoes, was not developed until 2 weeks of storage at 5°C. Red tomatoes have the best quality at harvest, however, showed so rapid softening, bad colour change, and rapid microbial growth that quality of fresh-cut product was the worst after 3 days at 5°C. Fresh-cut product processed from pink and breaker tomato maintained better marketability during storage at 5°C regardless of storage period of fresh tomatoes. Fresh-cut product of pink tomato had better quality than that of breaker during early days of storage. After 5 days of storage, however, fresh-cut product of breaker tomato showed better texture and taste than that of pink. From the microbial point of view, the shelf-life of fresh-cut product was shortened when processed with stored fresh tomato due to the early growth of total microbes and coliforms.