Title Factors affecting the quality of a novel fresh-cut sweet cherry product

Author P.M.A. Toivonen, F. Kappel, S. Stan, D.-L. McKenzie and R. Hocking

Citation LWT - Food Science and Technology Volume 39, Issue 3, April 2006, Pages 240-246

Keyword Minimal processing; Sweet cherries; Packaging; Shelf-life

## **Abstract**

The primary objective of this work was to evaluate whether sweet cherries could make an acceptable fresh-cut fruit product. The concept was to develop a cherry product cut such that the pit and associated tissue from stem bowl to the nose of the fruit were removed in a single cutting operation, leaving a cherry with a 'hole' which could be filled with various foodstuffs (much like a pitted olive). Secondary objectives were to determine if the design of the cutting tube, storage at low temperature before cutting or preharvest treatment with gibberellic acid (GA: used to improve firmness in commercial production) could influence the quality of packaged fresh-cut sweet cherries. Most cultivars of sweet cherries tested appeared to be suitable for cutting, and quality was not impacted significantly if GA was used on the fruit prior to harvest. Low temperature of the fruit at the time of cutting appeared to lead to greater deterioration than warm temperatures and so perhaps a warm-up time is required if the fruit are held in cold storage before cutting. Finally, the design of the cutting tube was of great importance with a scalloped-edge resulting in a lower cutting force, and hence less injury and better quality, than a straight-edge design.