

### Abstract:

Green papaya shreds, which are used in making the popular Thai salad 'Som-tan' and other health-food dishes, have very short shelf life due to rapid loss of texture and surface color. Controlled atmospheres (CA) of low oxygen and/or high carbon dioxide could supplement cold storage as cold storage alone is often not sufficient to improve shelf life during prolonged holding. CA has been reported to effectively maintain quality of both intact and fresh-cut horticultural products (Saltveit, 1993) including reduction of microbial decay (Madrid and Cantwell, 1993). However, results of studies on CA particularly low oxygen in fresh-cut produce have not been consistent. Positive effects include reduced phenolics and browning in fresh-cut lettuce in 2% O<sub>2</sub> at 15°C (Jamiel and Saltveit, 2002) and in diced onions in 1-2% O<sub>2</sub> (Mencarelli et al., 1990). However, in pear slices, low O<sub>2</sub> (0.25-0.5%) did not inhibit browning and softening (Gorny et al., 2002). This study examined the effects of 1-10% O<sub>2</sub> on the physical, microbiological and sensory quality changes in green papaya shreds at 2°C.