

**Title** Effect of chitosan coating fresh-keeping agent on senescence and membrane lipid peroxidation of postharvest kumquat fruits

**Author** Li Zhonghai, Li Jilie and Zhon Haiyan

**Citation** Abstracts of 27th International Horticultural Congress & Exhibition (IHC 2006), August 13-19, 2006, COEX (Convention & Exhibition), Seoul, Korea. 494 pages.

**Keywords** kumquat; senescence; chitosan; coating; membrane lipid peroxidation

#### **Abstract**

The Kumquat [*Fortunella margarita*] is a boutique fruit in china. Its cultivation acreage covered 6799 hm<sup>2</sup> and yielded 20,500 tones of fruit in 1991. The effect of chitosan coating fresh-keeping agents on senescence and activated oxygen metabolism of postharvest kumquat fruits was investigated using *Fortunella Crassifolia Swingle* and *Fortunella Margarita Swingle* as materials. A L<sub>9</sub> (4<sup>3</sup>) orthogonal experiment was performed to optimize the levels of Chitosan, sorbic acid potassium, dehydrogenation sodium acetate, and calcium chloride in coating agent. The result showed that the optimum formula was chitosan 2.0%, sorbic acid potassium 0.05%, dehydrogenation sodium acetate 0.3g/kg and calcium chloride 4.0% for storage. The activity decrease of superoxide dismutase (SOD) and the accumulation of MDA were restrained after coating. The factors enabled the ripening and senescence of fresh kumquat to delay.