**Title** Effects of Chlorine Was on Tomato Fruit Decay and Shelf Life at Ambient and Evaporative Cooling Condition

**Author** Thongsavath Chanthasombath, Chansamone Phomachan, Kham Sanatem, Antonio Acedo Jr. and Katinka Weinberger

**Citation** Book of Abstracts, Asia-Pacific Symposium on Assuring Quality and Safety of Agri-Foods, August 4-6, 2008, Radisson Hotel, Bangkok, Thailand.

**Keywords** *Lycopersicum esculentum* L.; Sodium hypochlorite; Postharvest disease; Fruit quality; Evaporative cooler

## Abstract

Tomato cv. CLN1462A and TLCV15 harvested at breaker had turning stage were washed in water or 200 ppm sodium hypochlorite (NaOCl) solution for 3 min before storage at ambient (27-33°C; 61-90% RH) or in a simple evaporative cooler (EC) (24-27°C; 91-99% RH). Fruit decay was not affected by storage condition, except for breaker fruit of CLN1462A which decayed more under EC than ambient conditions. NaOCl wash reduced decay only in turning fruit of CLN1462A stored at ambient and in breaker and turning fruit of TLCV15 stored in the EC. EC promoted red color development of breaker fruit of both cultivars and turning fruit of CLN1462A. It markedly reduced weight loss regardless of cultivar, harvest maturity and NaOCl treatment. NaOCl had no remarkable effect on fruit reddening and weight loss. At the ripe-soft stage, firmness decreased to about 1.0-1.5 kg force regardless of treatment. TLCV15 has generally higher soluble solids and acid contents than CLN1462A. Fruit pH did not show a clear trend with regards to cultivar, harvest maturity and NaOCl effects. Moreover, TLCV15 fruit was rated better than CLN1462A fruit in overall sensory quality.