

**Title** The effect of MA film packaging on storage of mature-red tomato

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### **Abstract**

Mature-red tomato fruits (cv. Pinky World) were packaged with modified atmosphere (MA) film (0.03 or 0.06mm) and stored at 0, 5, and 15°C. The results showed that the concentrations of CO<sub>2</sub> and O<sub>2</sub> inside MA package were about 4.21~8.17% and 9.78%~14.45% under steady state during storage 29 days at 0 and 5°C, respectively. The MA packaging (MAP) suppressed fruit softening and color change. The minimum lycopene content and maximum firmness were separately observed in fruits packaged with MA film (0.03 mm) at 5°C storage and film (0.06 mm) at 0°C, which the lycopene content 6.08 mg/100 g, and firmness was 0.49 Kgf at 29<sup>th</sup> day storage. The optimal conditions to keep high quality of tomato fruits were obtained by MAP during storage at 0°C for 29 days, independently of the film thickness, in which the adequate gas composition was CO<sub>2</sub> at 4.2%~5.6%, O<sub>2</sub> at 14.3%~14.5%, respectively.