

**Title** Effects of relative humidity on shelf life of chili cultivars harvested at different maturities  
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**Citation** ISHS Acta Horticulturae 837:123-128. 2009.  
**Keyword** *Capsicum annuum*; relative humidity; fruit quality

#### **Abstract**

Fruit of three chili cultivars (CCA321 and 9955-15 from AVRDC and 'Ox horn', a local cultivar) grown under Vietnam conditions were harvested at mature green, turning and red stage and stored at 25°C with three relative humidity (RH) regimes, 80-85%, 90-95% and ambient RH (75-99%). Weight loss comparably decreased at 80-85% and 90-95% RH. It did not significantly differ with cultivar and harvest maturity. Fruit decay was generally higher in 9955-15 than the other two cultivars and in more ripe fruit than green fruit. The effect of RH depended on harvest maturity and cultivar. In mature green fruit, the two high RH regimes (80-85% and 90-95% RH) comparably increased decay and the number of decayed fruit was least in 'Ox horn' and highest in 9955-15. In turning fruit, only 90-95% RH promoted decay while 80-85% RH had comparable effect as ambient RH. In red fruit, the trend was similar to that of mature green fruit except in Ox horn in which decay sharply increased at 80-85% RH at the end of storage. Mature green fruit of the three cultivars did not turn full red during storage regardless of RH. In contrast, turning fruit mostly turned red. RH had no distinct effect.