

Title Postharvest characteristics of breaker and red fruit of three chili cultivars at ambient and low temperature

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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 breaker and red stage and evaluated for quality and shelf life during storage at 25°C and 10°C. Color difference values (CDV), determined by integrating colorimetric a*, b* and L* before and after a specific period of storage, increased progressively in breaker fruit of all cultivars stored at 25°C due to red color development. 'Ox horn' reached maximum CDV earlier than CCA321 and 9955-15. In red fruit, CDV increased during the first 6 days and leveled off up to the end of the 15-day storage period. A different trend was exhibited at 10°C as CDV initially increased and then decreased on the 9th day of storage before increasing again thereafter. These changes were greater in magnitude in breaker than red fruit in all cultivars. Decay was higher at 25°C than 10°C. Cultivar differences were considerable in breaker fruit stored at 25°C in which more 9955-15 fruit developed decay than the two other cultivars. Soluble solids content was highest in 'Ox horn' and lowest in CCA321. It did not change much with storage. Titratable acidity and sensory flavor differed among cultivars, harvest maturity and storage temperature. In general, acidity levels increased while flavor decreased with storage.