Title Superatmospheric oxygen retards pericarp browning of litchi cv. ´Hong Huay´

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Abstract

Litchi fruit cv. 'Hong Huay' were stored in 50%, 70% or 90% O_2 (balance N_2) at 4oC with 90-95% relative humidity. Fruit held in air (21% O_2) served as control. Pericarp browning was significantly retarded by 50-70% O_2. 90% O_2 had initially the same inhibitory effect on browning but accelerated the process at the later part of the storage period. Degree of browning partly compared well with weight loss and peel anthocyanin content but not with respiration rate which appeared to be stimulated by high O_2. Consequent to the inhibition of browning, fruit held in 50-70% O_2 kept in storage for about 28 days or 8 days longer than the shelf life of fruits held in air or 90% O_2.