Abstract:

'Rong Rian' rambutan fruits were stored in low O_2 atmosphere consisted of 1, 2, 4, or 6% O2 in N2 or air +5, 10, 20 or 40% CO_2 at 13°C with 90-95% RH. Control treatment was the fruit stored in the air. Samples of the fruits from each treatment were evaluated every five days. It was found that 1% O_2 caused no visible injury, but caused off-flavour and unacceptable eating quality to the rambutan fruits after five days of storage. CO_2 at 20 and 40% caused skin and spintern browning after 10 and 5 days of storage, respectively, while off-flavour was detected in rambutans stored in 1% O_2 after 10 days, and in 20 and 40% CO_2 after 15 and 5 days. The safe levels of O_2 and CO_2 to prolong storage life of the rambutans were $\geq$2% O_2 and 5 to 10% CO_2. The results of this experiment also showed that low O_2 had a better control of the disease than high CO_2.