

Title Internal browning occurrences of 'Queen' pineapple under various low temperatures
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Abstract

'Trad-Srithong' pineapple (*Ananas comosus* L., 'Queen' pineapple) is sensitive to black heart symptoms during low temperature storage. We characterised the development of internal browning disorders in 'Trad-Srithong' pineapple stored under various low temperatures while high relative humidities. Fruit at the domestic commercial maturity stored at 8, 10, 13, and 20°C showed 2 different browning symptoms disorders, starting developments of internal browning after day 5. At 8 and 10°C, the symptom expressed white-grey tissues, and at 13 and 15°C, the symptom was dark-brown plots while it was dark-spot of decay in 20°C-stored fruit. However, all browning symptoms initially located and severed at tissues around the fruit core and then spread out to the pulp. There was, however, no significant difference of ascorbic acid contents between the core and pulp tissues of all treatments. Lipoxygenase (LOX) activities were highest in the core of all fruit during first 10 days of storage while polyphenoloxidase (PPO) activities increased in the core of fruit stored below 10°C after 10 days.