

Title Delaying fresh cut dragon fruit preparation after harvesting on quality and shelf life of product
Authors C. Chansamrankul, V. Srilaong, A. Uthairatanakij, P. Pongphenjitareerat, S. Kanlayanarat
Citation ISHS Acta Horticulturae 804:411-416. 2008.
Keywords dragon fruit; fresh cut; duration after harvest

Abstract

Fresh cut product was prepared on day 0, 2, 4 and 6 days after harvesting from dragon fruit stored at ambient temperature (around 30°C). Fruit without any defects were selected, washed, removed bract and cut into a quarter with remaining the peel. Fresh cut dragon fruit were packed in foam tray and over wrapping with polyvinyl chloride (PVC) film, and then stored at 4°C. The samples were taken to determine the qualities and physical changes daily. Weight loss of fresh cut prepared from the fruit at 0 and 4 days after harvesting was higher than that at 2 and 6 days after harvesting, respectively. Respiration rate and flesh firmness of fresh cut dragon fruit were greatly depended on the day of preparation. Fresh cut dragon fruit prepared immediately after harvesting had the highest respiration rate and firmness while those from 6 days after harvesting had the lowest respiration rate and firmness. Change of flesh color in all treatments was not significantly different during 6 days of shelf life and then it was sharply increased especially in fresh cut prepared from the fruit stored 6 days before cut. The storage period after harvesting of dragon fruit had a big impact on the ratio of soluble solids (SS) and titratable acidity (TA). Fresh cut immediately prepared after harvesting had the lowest SS: TA ratio whereas, this ratio was significantly increased in fresh cut product that prepared from the fruit stored 2, 4 and 6 days, respectively. Shelf life of fresh cut prepared from dragon fruit at day 0, 2 and 4 after harvesting was 10 days, while those prepared from dragon fruit at 6 days after harvesting limited for 8 days due to a translucent was observed in flesh tissues. The results indicated that the suitable duration for preparing fresh cut product from dragon fruit was 2-4 days after harvesting judged by eating quality and external appearance.