

Postharvest quality of red-fleshed watermelon affected by fruit position in vine

ABSTRACT

Effect of different fruit position on postharvest quality of F1 hybrid redfleshed watermelon Hi-U 16 was examined. In this study only one main vine was trained and maintained. The plants were allowed to set three fruits naturally at the first (8th - 11th nodes), second (13th - 16th nodes) and third (18th - 21th nodes) position. Fruits were harvested at 35 days after anthesis. Fruit weight, diameter, skin glossiness, skin and flesh colour, soluble solids concentration, firmness, pH, titratable acidity and vitamin C were determined. Fruit from second position was heavier and larger than fruit at first position followed by third position. Fruit position affected watermelon flesh lightness where flesh of first fruit position was darker than second and third position. Soluble solids concentration and firmness of fruits decreased as fruit position increased. Fruit pH decreased with increasing fruit position order while titratable acidity showed contrary trend. In addition, fruit position had no significant ($p < 0.05$) effect on skin color and glossiness and vitamin C of the fruit. In conclusion, the results indicated that different fruit positions affected postharvest quality of watermelon and the greatest effect was on soluble solids concentration and fruit weight which was the important characteristic for high quality of watermelon.

Keyword: *Citrullus lanatus* (thunb.); Colour; Fruit position; Postharvest; Soluble solids concentration; Titratable acidity; Watermelon