Title Response of different maturity stages of sapota (*Manilkara achras* Mill.) cv. Kallipatti to

in-package ethylene absorbent

Author Wangdup Bhutia, R. K. Pal, Sangita Sen and S. K. Jha

Citation Journal of Food Science and Technology, 48, Number 6, 763-768, 2011

Keywords Maturity stage; Ethylene absorbent; Kallipatti; Respiratory rate; Sapota; Packaging

Abstract

Sapota fruits are highly perishable due to their climacteric nature. The rapid softening of fruits is primarily due to high activity of many oxidative enzymes and liberation of ethylene. Harvest maturity plays a crucial role in deciding the marketability of climacteric fruits in general. Attempt has been made to evaluate the response of ethylene absorbent on variable maturity groups of harvested Sapota cv. Kallipatti with the objective to delay the ripening during transit and extend its marketability during storage at ambient condition (27–32 °C & 65–75% R.H.). Harvested fruits having three different degree of ripeness (as maturity indices viz. mature, half-ripe and ripe) were packed with or without ethylene absorbent sachets (Bioconservación, France) in 10 kg CFB boxes and transported from Dahnu to Delhi covering a distant of approximately 2500 KM by truck on road along with conventional packaging as control. The fruits were evaluated immediately on arrival at Delhi and subsequently during storage for various physical, physiological, biochemical and decay parameters. Mature fruits with ethylene absorbent exhibited maximum delay in ripening, low ethylene liberation, weight loss and high fruit firmness. The response of ethylene absorbent to extend the marketability of ripe fruit was not significant.

http://www.springerlink.com/content/5w36372512q860j3/fulltext.pdf