

Effect of different Fruitone concentrations on the physical characteristics and postharvest physiological disorder of cold stored pineapple

ABSTRACT

Fruitone CPA (26(3 Chlorophenoxy) propionic acid) is a plant growth regulator found to exert many beneficial effects on the characteristics of pineapple during development and postharvest storage at low temperature. A study was carried out on the effect of different concentrations of Fruitone CPA (0644 ppm active ingredient) on the physical characteristics (weight loss, colour, firmness) and sensory evaluation (appearance, colour, texture, odour, flavour, sourness, sweetness, and overall acceptability) of pineapple (cv. Gandul) during storage (10 ± 1 °C) for fresh consumption. Low concentrations of Fruitone CPA (8.8 ppm) was sufficient in maintaining the quality of pineapple in terms of reduction in weight loss, delayed ripening, and increased skin, pulp and core firmness due to alteration of shape, size, fruitlet air space and internal atmosphere. The effect of Fruitone CPA in improving firmness was more noticeable on the skin than the pulp of the pineapple. Fruitone CPA treatment (44 ppm) has potential in producing pineapple resistant to internal browning disorder and significantly ($p < 0.05$) increased the sensory score in terms of appearance, colour and texture.

Keyword: Fruitone CPA; Pineapple; Cold storage; Physical characteristics; Sensory; Internal browning