

Abstract

Effect of temperature on chilling injury (CI) in pineapples cv. Trad Seethong was studied. Fruits were stored at 10, 13 and 20°C, 90% relative humidity. There was no chilling injury occurring on pineapple fruits stored at 20°C, but those fruits stored at 10 and 13°C showed CI symptoms and the symptoms were more severe when storage time increased. The CI in fruits stored at 10°C was greater than 13°C. During the occurring of CI, ethylene production and ACO activity increased, but the activity of catalase (CAT), superoxide dismutase (SOD) and also ascorbic content decreased. The result indicated that CI were induce with low temperature, correlated with an decrease in CAT, SOD activity and ascorbic acid content at low temperature, and stimulated ethylene production and ACO activity.