

Title Postharvest n-propyl dihydrojasmonate and abscisic acid application on reducing chilling injury in banana peel

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### Abstract

Banana fruit (*Musa* sp, cv. 'Grande Naine') were sprayed with n-propyl dihydrojasmonate (PDJ) and abscisic acid (ABA) at concentrations of 1 mM and 0.25 mM respectively. The application was done prior to storage at 8°C for 3 weeks with or without transferring after 5 days interval to 20°C for ripening. PDJ and ABA treatments reduced the chilling injury symptoms as evidenced by less-grayish peel browning. Polyphenol oxidase (PPO) activity in PDJ and ABA treated fruit was lower than in the control, while activities of superoxide dismutase (SOD), catalase (CAT) and peroxidase (POD) in PDJ and ABA treated fruit were higher than the control. However, PDJ and ABA promoted fruit ripening with an increased of C<sub>2</sub>H<sub>4</sub> evolution and also decreased chlorophyll fluorescence (Fv/Fm). The results indicated that PDJ and ABA activated enzymatic antioxidant systems, resulting in reduced CI symptoms. This implies that both PDJ and ABA may play a role in the regulation of ripening and senescence of climacteric fruit.