

### Abstract:

Lychee trees experiencing a gradual temperature drop from 15°C to -2°C for six days programmed in an environment-controlled growth chamber were pretreated with abscisic acid (ABA) and paclobutrazol (PP333). The results showed that superoxide dismutase (SOD) activity increased in the ABA- and PP333-treated trees, while that of the control decreased under chilling conditions. Proline contents in the trees of both treatments was stable and remained at low level throughout the temperature drop, while that of the control peaked at four days after the start of temperature drop, when the temperature dropped to 4°C. Chilling injury in the ABA- and PP333-treated trees was less serious than in the control. The relationship between chilling resistance and the two plant growth regulators was discussed.