

Title Effects of brassinosteroids on postharvest disease and senescence of jujube fruit in storage
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Citation Postharvest Biology and Technology, Volume 56, Issue 1, April 2010, Pages 50-55
Keywords Brassinosteroids; Jujube fruit; Postharvest disease; Fruit senescence

Abstract

The effects of brassinosteroids (BRs) against blue mould rot caused by *Penicillium expansum* and on senescence of harvested jujube fruit were investigated. Brassinosteroids at a concentration of 5 μ M effectively inhibited development of blue mould rot and enhanced the activities of defense-related enzymes, such as phenylalanine ammonia-lyase, polyphenoloxidase, catalase and superoxide dismutase. However, BRs did not have direct antimicrobial activity against *P. expansum in vitro*. BRs significantly delayed fruit senescence by reducing ethylene production and maintained fruit quality. It is suggested that the effects of BRs on reducing decay caused by *P. expansum* may be associated with induction of disease resistance in fruit and delay of senescence.