

### Abstract

Grey mould, caused by *Botrytis cinerea*, is one of the most destructive postharvest diseases of Strawberry. Postharvest treatment of strawberry with calcium (Ca) solution has been reported to improve fruit firmness and to reduce susceptibility to postharvest disorders and diseases. The objective of this study was to investigate the effect of Ca lactate on grey mould development. Two experiments were carried out in December 2004 and March 2005. Mature fruit of strawberry cv. Selva were harvested from a commercial farm in the Adelaide Hills, South Australia. Fruit were dipped for 5 min in Ca lactate solution at either 1500, 3000 or 4500 ppm Ca. Controls were dipped in sterile nanopure water. All fruit were wounded inoculated with conidial suspension of *B. cinerea* ( $10^6$  conidia/ml). Incidence of rot and diameter of lesions were monitored daily during storage for 10 days at 10°C. Dipping fruit in either 1500, 3000 or 4500 ppm Ca did not reduce rot development compared to dipping in water. The largest grey mould lesions occurred on fruit dipped in 4500 ppm Ca solution. Incorporation of Ca lactate (1500 - 4500 ppm Ca) had little effect on *B. cinerea* growth *in vitro*.