

Title Postharvest diseases management of citrus in Italy: current status and new strategies
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Abstract

The most common and serious diseases which affect citrus fruit in Italy, after harvest, are green and blue mould, incited respectively by *Penicillium digitatum* Sacc. and *italicum* Weh. Current post-harvest decay control strategies, at practical level, are based on chemical fungicides. The use of chemical fungicides for postharvest disease control is under close scrutiny, due to growing consumer concern about pesticide residues, along with the development of pathogen resistance to approved pesticides. Therefore, there is an emerging interest to develop “safer” alternative measures for decay control. This paper addresses an overview on the effectiveness of some of the novel approaches emerging in this area, with special emphasis on our Institute’s findings. The enhancement of host defense mechanisms at the wound site, holding fruit at temperatures and humidity conducive to wound healing and detrimental to the pathogen development (curing), the utilization of hot water treatments (hot water dipping and short hot water brushing), the applications of the generally recognized as safe compounds (GRAS), applied in cleaning operations, biocontrol yeasts, the new “reduced-risk” fungicide fludioxonil, and the advantages of integrated strategies (IPM) to improve disease control, have been evaluated on lemon and orange fruit. Potential benefits, disadvantages and commercial feasibility of these new approaches will be discussed.