

Title Reduction of gray mold development in table grapes by preharvest sprays with ethanol and calcium chloride

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Abstract

Preharvest applications of a 16% ethanol (EtOH) solution, containing 1% CaCl₂, reduced gray mold development in 'Chasselas' table grapes picked at a late harvest date. The losses due to rotten clusters dropped from 15% in controls to 5% in grapes treated with EtOH + CaCl₂. Over 6 weeks cold storage, the losses due to gray mold rots were reduced by 50% in EtOH + CaCl₂ treated clusters, compared to untreated controls. Preliminary experiments had shown that a 2% EtOH solution was already inducing a significant reduction in gray mold growth. A range of concentrations up to 50% ethanol had been tested in preliminary trials without observing damage to the vines and clusters. The treatments did not induce significant changes in fruit quality assessed by sensory analysis of healthy berries.