Effect of coating sulphured 'Madras' litchi fruits with polymercoat directly after harvest on the incidence of *Penicillium* colonization after cold storage

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Abstract

The effect of coating sulphured 'Madras' litchis with a polymer formulation was assessed as a measure to prevent or limit moistures loss and *Penicillium* colonization during and after cold storage. The fruits were stored at 1°C for 28 days, and subsequently evaluated after 8 and 10 days at 20°C. Export cartons of 'Madras' litchi fruits were coated with PolymerCoat directly after sulphuring and packing. The fruits were harvested and sulphured the day before treatment. PolymerCoat was applied at 25, 50, 75 and 100% concentrations. Uncoated fruits served as controls. PolymerCoat was effective in reducing moisture loss during cold storage and was highly effective in preventing *Penicillium* fruit colonization, particularly when applied at full strength. 95% of the fruits treated at full strength were devoid of *Penicillium* 10 days after cold-storage, 39 days after harvesting. Weight loss during cold storage was reduced by 5%. Taste appeal and juice total soluble solids content were reduced by coating, but not to levels of the fruits being unappealing. Coating appears to hold a great benefit regarding export of 'Madras' fruits to the EU. Coating at full strength might be recommended.