

**Title** Control of postharvest diseases of fig by chlorine dioxide fogging and modified atmosphere packaging

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### **Abstract**

The efficacy of chlorine dioxide by fogging was tested for the control of postharvest diseases of fig. Fruit were fogged with various concentrations (0, 300, 500, 1000 µl/l) of 1.5 l chlorine dioxide in a 7.5 m<sup>2</sup> cold storage unit for 60 min at room temperature. Treated fruit were stored either in air or modified atmosphere bags for 7 days at 1°C followed by 2 days shelf life at 20°C. In two experiments, fogging at 300 to 1000 µl/l significantly reduced natural incidence of decay, most all of which was gray mold. Modified atmosphere packaging did not improve the efficacy of fogging in reducing decay incidence. The epiphytic population on surface of fruit was similarly reduced by chlorine dioxide fogging. All treatments significantly reduced total microorganism, fungal and bacterial populations in fruit. In addition, microorganisms in storage atmosphere were significantly reduced by chlorine dioxide fogging. Neither of treatments affected the visual quality and taste of fruit.