

Abstract

Germination of *Botrytis cinerea* spores on potato dextrose agar after a 30 s immersion in 10 or 20% ethanol was 87 and 56%, respectively, compared to 99% among untreated controls. After similar immersion in 0.5 or 1.0% potassium sorbate, 84 and 68% of the spores germinated, respectively. Addition of 0.5 and 1.0% potassium sorbate to 10 and 20% ethanol solution significantly increased the inhibition of spore germination. The germination of spores after 30 s immersion in 20% ethanol plus 0.5% potassium sorbate was 9.7%. The incidence of gray mold, caused by *B. cinerea*, on detached berries of 'Flame Seedless' grapes immersed for 30 s in water, 10 and 20% ethanol, and 0.5 or 1.0% potassium sorbate was 55.2, 42.1, 31.0, 37.7, or 24.4%, respectively. Addition of 0.5 and 1.0% potassium sorbate to 10 and 20% ethanol reduced decay to 10% or less and was more effective than either alone. After 30 days of storage at 1 °C, the combination of 20% ethanol either with 0.5 or 1.0% potassium sorbate was equal in efficacy to commercial SO₂ generator pads in reducing the incidence of gray mold on 'Thompson Seedless' grapes. None of the combinations of ethanol and potassium sorbate injured the berries.