

**Title** Postharvest treatment of isothiocyanates to control *Alternaria* rot in netted melon

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### Abstract

The fungicidal activity of allyl-isothiocyanate (allyl-ITC), benzyl-isothiocyanate (benzyl-ITC) and a mixture of isothiocyanates (allyl-ITC, benzyl-ITC, phenyl-isothiocyanate and 2-phenylethyl-isothiocyanate; MCIT), was tested in netted melon infected with *Alternaria alternata* as, was the effect of these compounds on the postharvest quality. Fruits were inoculated with *A. alternata* and exposed to allyl-ITC, benzyl-ITC, or MCIT, at 0.25 and 0.5 mg ml<sup>-1</sup> concentrations. A commercial fungicide, Captan (CF), was used as a positive control. The fruit was stored at 20°C and 92% relative humidity for up to 8 days. Allyl-ITC and MCIT at both tested concentrations, significantly reduced *Alternaria* rot, by 82.73% to 88.67%. None of the ITC treatments had a significant effect on weight loss, total soluble solids, titratable acidity or pH. Fruits treated with 0.5 mg ml<sup>-1</sup> of AITC were more firm than others. Treatment with allyl-ITC, benzyl-ITC, or MCIT appears to be a promising alternative to synthetic fungicides for controlling postharvest diseases in netted melon.

<http://www.springerlink.com/content/690170t801nt7t30/fulltext.pdf>