Alk(en)ylresorcinol concentrations in 'Kensington Pride' mango peel and antifungal activity against *Colletotrichum gloeosporioides*

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Abstract

Two preformed alk(en)ylresorcinols, 5-*n*-heptadecenylresorcinol and 5-*n*-pentadecylresorcinol, were identified in 'Kensington Pride' mango fruit peel. The alk(en)ylresorcinols had antifungal activity against *C. gloeosporioides*, as determined from thin layer chromatography bioassays. Soil-applied activators of plant defence (Acibenzolar at 150 mg L⁻¹, and soluble potassium silicate at 200 and 1000 mg L⁻¹) did not influence concentrations of 5-*n*-heptadecenylresorcinol or 5-*n*-pentadecyl¬resorcinol in mango peel when applied 2 months after fruit set and one month later. Concentrations of both alk(en)ylresorcinols were high 2 months after fruit set but levels declined by 50% within 1 month (2 months before commercial harvest) and did not change significantly from commercial harvest until eating-ripe.