

**Title** UV irradiation alters the levels of flavonoids involved in the defence mechanism of *Citrus aurantium* fruits against *Penicillium digitatum*

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#### **Abstract**

The effect of UV irradiation on the levels of the flavanone, naringin, and the polymethoxyflavone, tangeretin, in the peel of *Citrus aurantium* fruits is described, as changes in the synthesis and/or accumulation of these compounds after infection with *Penicillium digitatum*. The growth of *P. digitatum* on previously irradiated fruit was reduced by up to 45%. Changes in flavonoid levels were detected, associated with inhibition of fungus growth, the naringin content falling by 69% and tangeretin levels increasing by 70%. The possible participation of naringin and tangeretin in the defence mechanism of this *Citrus* species is discussed.