

Title            The effect of fruit orientation of postharvest commodities following low dose ultraviolet light-C treatment on host induced resistance to decay

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Citation        Crop Protection, Volume 24, Issue 8, August 2005, Pages 756-759

Keywords      Hormesis; Ultraviolet light-C; Postharvest decay; Induced resistance

### **Abstract**

The possibility of inducing resistance to bitter rot (*Colletotrichum gloeosporioides*), brown rot (*Monilinia fructicola*), and green mold (*Penicillium digitatum*) in apples, peaches, and tangerines, respectively, by treating them with ultraviolet light-C (UV-C light) at the stem end in a stationary position without rotation was investigated. This approach was compared with the conventional procedure where fruits were rotated four times, thereby exposing the entire surface area to the full effects of the UV-C light. Results revealed that when the stem ends of apples, peaches, and tangerines were exposed in a stationary position to dosages of 7.5, 7.5 and 1.3 kJ m<sup>-2</sup> of UV-C light, respectively, induced host resistance to postharvest decay which was equal to, or slightly better than when fruits were rotated four different times. When fruits were rotated, exposing only one or two different sides to UV-C light, the percent infection appeared to increase, compared to treating only the stem ends or when fruits were rotated four times.