

**Title** Field applications of three different classes of known host plant defence elicitors did not suppress infection of Geraldton waxflower by *Botrytis cinerea*

**Author** S. -Q. Dinh, D. C. Joyce, D. E. Irving and A. H. Wearing

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#### **Abstract**

Ethylene-mediated flower abscission caused by *Botrytis* infection afflicts cut Geraldton waxflower stems. Preharvest spray applications of three known host plant defence elicitors, benzothiadiazole (BTH), methyl jasmonate (MeJA) or silicon (Si), were applied to Geraldton waxflower cvv. Mullering Brook and My Sweet Sixteen. Their individual efficacy in postharvest suppression of *Botrytis* disease development was assessed. Field applications of BTH or Si generally had no significant ( $P>0.05$ ) effect on *Botrytis* disease severity on either cultivar. MeJA sprays did not significantly ( $P>0.05$ ) reduce disease severity on cv. Mullering Brook, but slightly and significantly ( $P<0.05$ ) suppressed *Botrytis* on cv. My Sweet Sixteen at concentrations of 500 and 750  $\mu\text{M}$  MeJA. One Si treatment, 1500 mg  $\text{SiO}_2/\text{L}$ , significantly ( $P<0.05$ ) reduced floral abscission on cv. Mullering Brook. Overall, field applications of these three host plant defence elicitor chemicals as spray treatments had little effect on vase life, water uptake and relative fresh weight of the cut flower sprigs. Moreover, they did not suppress *Botrytis* or associated postharvest floral abscission in cut Geraldton waxflower flowers.

<http://www.springerlink.com/content/w37m0u772242401m/fulltext.pdf>