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Hot water dips elicit disease resistance against anthracnose caused by *Colletotrichum musae* in organic bananas (*Musa acuminata*)

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1 **Hot water dips elicit disease resistance against anthracnose**
2 **caused by *Colletotrichum musae* in organic bananas (*Musa***
3 ***acuminata*)**

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10 **Abstract**

11 **Anthracnose of banana is an aggressive disease, difficult to control**
12 **during export. Moreover, in organic banana the incidence of this pathogen**
13 **is higher than in traditional crops due to the lack of use of synthetic**
14 **fungicide during the pre-harvest period. The effectiveness of hot water**
15 **dips has been studied in order to reduce *C. musae* growth and to**
16 **determine their effect on postharvest and shelf-life physicochemical and**
17 **sensory quality, with the goal to incorporate them into integrated pest**
18 **management, and to reduce the use of chemicals. Hot water treatment at**
19 **40 °C for 20 min elicited a *C. musae* severity inhibition (49.5 %)**
20 **significantly higher ($p<0.05$) than with other hot water dips. Organic**
21 **bananas dipped at 40 °C for 20 min had lower ($p<0.05$) weight, green color,**
22 **and firmness loss than with other hot water treatments. Global**
23 **appearance and flavor, were better ($p<0.05$) scored in fruit treated with a**
24 **40 °C for 20 min than in non-treated fruit during cold storage and shelf-life**
25 **period. These results suggest that hot water dip may be potentially useful**
26 **for controlling anthracnose in organic bananas during the postharvest**

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