ENHANCING RESISTANCE AGAINST ANTHRACNOSE DISEASE IN HARVESTED CASHEW-APPLE BY SALICYLIC ACID

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To learn how salicylic acid (SA) may affect disease resistance in pseudo-fruits (6 week-old) of *Anacardium occidentale* L. clones (CCP-06, CCP-09, CCP-76 and CCP-1001), they were treated with 1 mmol L^{-1} SA solution under vacuum infiltration for 2 min at a low pressure (-80 kPa), and for an additional 10 min at air pressure. The pseudo-fruits were inoculated with a conidial suspension (1×10^5 mL^{-1}) of the isolate LARS-910 of *Colletotichum gloeosporioides* Penz., the causal agent of anthracnose, and incubated at 13 °C, 85-95% RH. The disease incidence on the SA-treated cashew-apples was respectively 42.5%, 39.7%, 41.3% and 38.9% lower than that on the controls for all the clones, on the 4th day of incubation. The severity (lesion diameter) was also respectively 26.0%, 24.7%, 23.9% and 22.7% lower than that of the non-treated pseudo-fruits. The activity of defensive enzymes, as phenylalanine ammonia-lyase (PAL) and β-1,3-glucanase, and the level of hydrogen peroxide (H_2O_2) rate generation in the pericarp of SA-treated samples (clone CCP-09) was significantly enhanced on the 4th day after the infiltration (respectively 94.6%, 102.3% and 18.2% higher than that in the control). These results suggested that PAL and β-1,3-glucanase, as well as H_2O_2, may be involved in the enhancement of disease resistance in cashew-apples previously treated with SA.

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