

Abstract

Anthracnose, caused by *Colletotrichum gloesporioides*, is responsible for major quality losses in harvested mango. Chemical control of anthracnose is an integral part of postharvest handling but the possibility of fungi developing resistance to fungicides, and increasing consumer reluctance to buy chemically-treated fruit, warrant alternative methods of disease control. Mango sap causes sap burn to fruit skin, so they are desapped prior to packaging. However, the role of sap in protecting fruit against postharvest anthracnose has not been extensively studied. The present experiment aimed at investigating preformed antifungal compounds in sap of several mango varieties namely Kensington pride, celebration, Honey Gold, and Nam Doc Mai. Fruits were harvested at commercial maturity, sap was collected, solvent-extracted and subjected to HPLC. Results revealed that concentration of 5-n-penta- and 5-n-hepta- decenyl resorcinols significantly differed among the varieties. The variety Celebration had the highest level of 5-n-pentadecenyl resorcinol followed by Kensington pride and Honey Gold. The variety Kensington pride and honey Gold. The variety Kensington Pride had the highest levels of 5-n-heptadecenyl resorcinol followed by Celebration and Honey Gold. The variety Nam Doc Mai had the lowest levels of both the resorcinols, and this variety is the most susceptible of those tested to anthracnose. Currently, the antifungal properties of the resorcinols are being tested against *Colletotrichum gloesporioides* using a thin layer chromatography bioassay and a spore germination assay. If a positive correlation can be established between levels of resistance and concentrations of resorcinols in sap, the mango fruits may be better protected from postharvest anthracnose by not desapping.