B-96: Control of anthracnose disease in mango

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Anthracnose disease affects the market value of mango, due to appearance of black spots. Dipping mango in hot water and/or use of fungicides (Benlate) reduces the incidence of disease. Presently, a combination of the above treatments are practised by local exporters. However, developed countries have recently set very low tolerance limits to Benlate for use in fruits due to its possible carcinogenic activity.

This work was initiated to observe the effect of Benlate in concentrations lower than the recommended level (1,000 ppm) with hot water treatment. Benlate was tested at 1,000, 600, 200 and 0 ppm in combination with hot water. The control sample was dipped in cold water without Benlate. Experiment was triplicated using 6 fruits per treatment and the fruits were taken from a single tree from one pick. Two separate experiments were conducted for varieties Peter-Pasand and Alphonso.

Variety Peter-Pasand, which is known to be very susceptible to the disease, showed low incidence of disease during the initial stages of storage (up to 7 days) when 1,000 ppm Benlate or only hot water was used. However, at the ripened stage, these treatments had no significant difference in disease incidence. Variety Alphonso had very few infected fruits. These results showed that the lower concentrations of Benlate (< 1,000 ppm) in combination with hot water did not reduce anthracnose in mango as a post harvest treatment for very susceptible varieties.