

Title Antifungal compound content in mango latex at different maturity stages
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Abstract

Anthracnose disease caused by *Colletotrichum gloeosporioides* is the major postharvest disease of mango fruit in Thailand. Fruits are infected while they are on the tree and symptoms can be seen after harvesting. In our previous study, it was found that latex of 'Mahajanaka' mango contained large amount of water insoluble fraction which contained antifungal compounds. In these experiments two main objectives were studied firstly, water insoluble fraction of 'Mahajanaka' latex was tested for its efficiency in controlling anthracnose disease on 'Nam Dokmai See Thong' mango. Secondly, fruit latex of 'Mahajanaka' mango was collected and separated at different stages of fruit development, 77-126 days after full bloom for the investigation of antifungal compounds. The results showed that 'Nam Dokmai See Thong' mango fruit coating with 1000 ppm of water insoluble fraction of 'Mahajanaka' latex in Teva wax showed similar effectiveness to retard anthracnose damage as Zivdar wax which contain fungicide. Young fruit of 'Mahajanaka' contained the largest amount of total latex but less amount of water insoluble fraction. The largest amount of water insoluble fraction was found at commercial harvesting stage (98-05 days), after that it decreased. Thus, the most suitable period to collect antifungal compound was at commercial harvesting stage.