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**A STUDY OF THE CAUSAL ORGANISMS AND THE EFFECT OF
LATEX ON STEM END ROT DEVELOPMENT, RESPIRATION AND
ETHYLENE PRODUCTION IN 'KARUTHACOLOMBAN' MANGOES**

A PROJECT REPORT PRESENTED BY

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ABSTRACT

A STUDY OF THE CAUSAL ORGANISMS AND THE EFFECT OF LATEX ON STEM END ROT DEVELOPMENT, RESPIRATION AND ETHYLENE PRODUCTION IN 'KARUTHACOLOMBAN' MANGOES

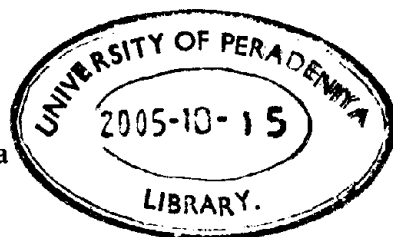
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Immature harvesting, latex burn and poor post harvest handling practices result in high postharvest losses in mango. Stem end rot is one of the main postharvest diseases in mango industry. The stem end rot of mango is caused by several fungal pathogens. *Lasiodiplodia theobromae*, *Colletotrichum gloeosporioides* and *Phomopsis mangiferae* are major causative fungi of stem end rot in Sri Lanka. *Dothiorella mangiferae* and species of *Pestalotiopsis* are also found from mango fruits affected by stem end rot, but they show slow disease development when inoculated to the fruit. A significant disease development was shown when a homologous mixture of *Lasiodiplodia theobromae*, *Colletotrichum gloeosporioides*, *Phomopsis mangiferae*, *Pestalotiopsis mangiferae* and *Dothiorella mangiferae* spore suspension was inoculated to the fruit. Stem end rot causal organisms may infect fruit in the field and remain latent during subsequent fruit development. Throughout harvesting and storage there is a tendency of fruits to come in to contact with mango latex. 'Karuthacolomban' mango fruits, with oozed mango latex shown significant increase of the disease. According to the results there is a clear impact of mango latex to disease development. Length of pedicel also had an effect on stem end rot development. Disease development was slower on the fruits with longer pedicel than the fruits without the pedicel. Compared to the immature fruits, partially mature fruits showed moderate disease development and fully mature fruits showed severe disease development. Respiration rates and ethylene production rates of fully mature fruits were higher than partially mature and immature fruits.