

Abstract:

The papaya (*Carica papaya*) fruit is considered a valuable crop for its nutritive content. High incidence of disease caused by microorganisms is one of the major problems in the marketing of papaya. *Colletotrichum gloeosporioides* is the most important postharvest fungus of this fruit. The use of synthetic fungicides has been the traditional postharvest treatment to control this microorganism. However, excessive use of fungicide has resulted in serious problems of pathogens developing resistance. Recent studies have demonstrated the antifungal activity of two naturally occurring compounds: chitosan and aqueous extracts of papaya seeds. The objective of this work was to evaluate the fungicidal effect of these two compounds against *C. gloeosporioides* development during papaya storage. The results showed the best fungicidal effect to be chitosan at a concentration of 1.5% when papayas were artificially inoculated after treatments. No synergistic effect was observed when chitosan and papaya seed extracts were combined. For future studies it is proposed to evaluate these two compounds on field trials.