

Title In vitro antifungal activity of clove and cinnamon oil and their synergistic against postharvest decay of grape

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Abstract

Efficacy of essential oil from clove and cinnamon against 6 fungi causing postharvest decay of grapes: *Aspergillus niger*, *Alternaria alternata*, *Collectotrichum gloeosporioides*, *Lasiodiplodia theobromae*, *Phomopsis viticola* and *Rhizopus stolonifer* by inverted petriplate method was studied. Antifungal activity of clove oil against all above-mentioned fungi showed MIC: 200, 200, 400, 800, 200 and 200 mg/ml, respectively whereas the MIC obtained from cinnamon oil were 50, 100, 200, 200, 100 and 800 mg/ml, respectively. Investigation of synergistic effect of clove and cinnamon oil showed 3 optimum ratios: 3:7, 2:8 and 1:9 and the MIC for all fungi obtained from these ratios to inhibit growth of 6 fungi was 400 mg/ml.