

Title Effects of some medicinal plants extract and essential oil on some fungal diseases control in tomato fruit

Author Arouiee, H., Kahrobaiyan, M., Tavana. M., Vejdanifard, M., Mir Hosseiny. M. and Ashofteh, A. R.

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Abstract

The antifungal activity of plant oils and extracts were tested against *Penicillium* sp. and *Aspergillus niger*. The essential oils of Fennel (*Foeniculum vulgare* L.) and Caraway (*Carum carvi* L.), and also plant extracts of Fennel, Caraway and Sage (*Salvia officinalis*) were used, too. The essential oil treatments were performed at two concentrations (0.25 and 0.5%) and extract treatments applied at 4 levels (25%, 50%, 75% and 100%). All treatments were showed different activities in control of fungi growth. A significant decrease in mycelial growth was obtained with the addition of 0.25% and 0.5% in each of two essential oils in PDA medium. *Carum carvi* essential oil inhibited mycelial growth of two fungi tested at 0.5 % level. Among of plant extracts, *Carum carvi* was had highest inhibition with highest concentration, which was 100% (v/v) level. The results indicated that the *Carum carvi* extract inhibited growth of *Aspergillus niger* (53.68 %) and *Penicillium* sp. (88.556 %) in compared to control.