

Fungal Inhibition By Some Spice Essential Oils

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Abstract

The antifungal activities of essential oils of pickling herb (*Echinophora tenuifolia* spp. *sibthorpiana*), rosemary (*Rosmarinus officinalis* L.) and oregano (*Origanum vulgare* L.) plants growing wild in Turkey were tested against mycelial growth of *Alternaria alternata*, *Aspergillus niger* and *Aspergillus parasiticus* using Potato Dextrose Agar (PDA) *in vitro*. Essential oil of *O. vulgare* was the most effective on the mycelial growth of *A. alternata* compared with other two fungi. Oregano oil was the most active against all the moulds tested. Some levels of pickling herb and rosemary stimulated the mycelial growth of *Aspergillus niger* and *Aspergillus parasiticus*. It was concluded that the fungistatic effects of every oil increased with higher doses. The high fungistatic effect in the beginning of incubation decreased gradually towards the end of incubation. However, knowledge of how to protect the spoilage of food products from pathogens and saprophytic fungi can probably be gained from the different concentrations of spice derivatives.

Key Words: Inhibitory effect, Essential oil, Fungi

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