

# **The effect of plant volatile oils on infection of lemon fruit by Green mold(*Penicilliumdigitatum*)**

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## **ABSTRACT**

This study was carried out in order to examine the effectiveness of four volatile plant oils (Juniper, Caraway, Rosemary, and Mint) in preventing green rotting caused by *Penicilliumdigitatum* on lemon fruit of the variety Lisbon. The results indicated that both Caraway and Juniper oils reduced significantly the growth of the fungus causing the green rotting on the uninjured fruit, compared to the fruit treated with Mint oil and Rosemary oil and the control.

The infection was 20% on the fruits treated with Juniper oil and 28% on the fruit treated with Caraway oil and 44% on the untreated. The results indicated also that reducing mechanical injury during fruit harvesting and transportation, which was clear from the infectiveness of the used oils in preventing the growth of the fungus with the exception of the fruit treated with Caraway oil, where the injury was reduced to 48%, compared to 100% on the control.

These results call for the continuation in search for plant oils, which may substitute for the use of chemical compounds in controlling diseases which affect lemon fruit after harvest.

**Key word:** Volatile oil, Citrus Fruit (Lisbon) Green mold (*Penicilliumdigitatum*)