



## Antifungal Effects of Anise (*Pimpinellaanisum* L.) Essential Oil Against Some Storage Fungi *In Vitro*.

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**Abstract:**This study was conducted in 2016 at Dep. of Field Crops and Dep. of Plant Protection in Faculty of Agriculture, Damascus University. This study aimed to determine the antifungal activity of anise (*Pimpinellaanisum* L.) essential oil at different concentrations against storage fungi (*Aspergillusniger*, *Penicilliumdigitatum*and*Fusariumsolani*) *in vitro*. The result showed that yield of anise oil province was 3.8% v/w base on dry weight of ripe fruits of anise. The results showed that essential oil from anise oil at 300, and 500  $\mu$ /100ml of anise oil showed complete inhibition (100%) of mycelia growth of *A. niger*and *F. solanion* the artificial media, respectively. The median effective concentration (EC<sub>50</sub>) values for inhibition of radial mycelia growth of *A. niger*, *F. solani*, and *P. digitatum*. on PDA medium, were 67.58, 148.25 and 175.50  $\mu$ l/ 100ml of anise oil. respectively. This indicate that *A. niger*, *F. solani*, were highly sensitive to anise oil. Therefore we recommended to use the oil of the ripen fruits of anise as environment friendly fungicides

**Key word:**Anise, Essential oil, Fungi, EC<sub>50</sub>.