

## **THE EFFECT OF ANISE SEED EXTRACTS IN SOME MICROORGANISMS .**

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### **ABSTRACT**

Antimicrobial activity of oil, aqueous and alcoholic extracts of anise seeds against gram positive (*Bacillus subtilis* , *Staphylococcus aureus* )and gram negative (*Escherichia coli* , *Pseudomonas aeruginosa*)bacteria and molds (*Rhizopus spp*, *Mucor spp* ,*Aspergillus spp* ,*Penicillium spp*) were tested ;those microorganisms represent common causes to some human and animal employed in extracting anise oil. Concentration of (1000,2000,4000 PPM)of the extracts above were used to find their action in the tested microorganisms. It has been shown that *Ba-subtiles* and *Staph. aureus* bacteria were affected more than *Escherichia coli* , *Pseudomonas aeruginosa* .The maximum diameters of inhibitory zones (24, 26 mm) were appeared at a concentration of 4000 ppm of oil extract against the tested gram positive bacteria comparing with 13 ,18 mm of diameters of inhibitory zones recorded against the tasted gram negative bacteria at the same conditions. The tested mold *Rhizopus spp* was the most susceptible to the oil extract, the percentages of their inhibition at constrictions of 2000 and 4000 ppm were 30 and 40% consequently in comparison with alcoholic extract 95% which was 7.4 and 8.8% for *Bacillus subtilis* , *Staphylococcus aureus* consequently .The alcoholic extract had no effect in the growth of *Escherichia coli* even at the concentration of 4000 ppm. The molds *Rhizopus spp*, *Mucor spp* were influenced more than ,*Aspergillus spp* ,*Penicillium spp* since the percentages of inhibition were 29,28,25,22% consequently. The aqueous extract was not effective in all tested microorganisms because it had no anise oil and thus no anithol dissolved (the active

material),generally result indicated from seed Anise oil have more activity than alcoholic and water extracts.