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THE ANTIMICROBIAL EFFECT OF EXTRACTS OF *MELIA AZEDARACH* ON SOME PATHOGENIC MICROORGANISMS

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ABSTRACT

Our work treated *in vitro* the antimicrobial activity of essential oils (EO) extracted from tree *Melia azedarach* that has proved to be a remarkable source of molecules biologically actives through its leaves, flowers and seeds on some pathogenic bacteria and yeast. Results showed that the seed oil of *M. azedarach* is the most active because it has the best diameters of inhibition halos for the three bacteria tested, with 30 mm, 25 mm and 23 mm respectively for *S. aureus*, *E. areogenes* and *E. coli.* Leaves EO has also an antibacterial effect on the three strains with a diameter of 21 mm for *S. aureus, E. coli* and 15 mm to 20 mm for *E. areogenes.* About flower EO, the diameters of the inhibition halos vary between 17 mm and 19 mm. The best percentages of fungal growth inhibition for the EO of *Melia azedarach* were obtained for 100 µl. The greatest inhibition was obtained for *C. albicans* strains to 100 µl, respectively 75%, 70% and 75% for EO of leaves, flowers and seeds. *Saccharomyces* spp has a high percentage of 50% inhibition at a dose of 20 µl for EO leaves and seeds. EO of leaves inhibited the growth of *C. albicans* and *F. oxysporum* over 70%. The EO of flower shows growth inhibition of 70% and 50% for *C. albicans* and *F. oxysporum*.

KEYWORDS: Antimicrobial Effect, *Melia Azedarach*, Pathogenic Bacteria, Pathogenic Yeast