

SCREENING OF SOME QATARI PLANT EXTRACTS FOR ANTI FUNGAL ACTIVITIES OF PLANT PATHOGENIC FUNGI

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Abstract

The present study aimed to evaluate the antifungal activity of three desert plants extracts grown naturally in Qatar: (Al-rayhan) *Ocimum basilicum*, Shafallah (*Capparis spinosa*) and Qwaif (*Prosopis juliflora*) to study their inhibitory effect against three pathogenic fungi: *Aspergillus niger*, *Fusarium oxysporum* and *Giberella baccata*. Samples were collected from Qatar University farm. Filter disk method was used for antagonistic study and four chemical solvents: distilled water, n-butanol, ethyle acetate and chloroform were used to extract the plant materials. The fungi were diluted by DMSO and then treated by 0,5, 10 and 20 mg/ml concentration of extracts in addition to the control group. The study revealed that *Capparis spinosa* and *Prosopis juliflora* extracts had the highest inhibitory effect against *Aspergillus niger*, *Fusarium oxysporum* and *Giberella baccata* while *Osmium basilicum* of n-butanol and chloroform extracts showed no significant effect on *Giberella baccata*. Distilled water and ethyl acetate extracts of *Osmium basilicum* at 20% concentration showed high inhibition against *Giberella baccata*. The study revealed that ethyl acetate at 20% concentration significantly reduced *Aspergillus niger* growth when treated with *Prosopis juliflora* and *Capparis spinosa* extracts (0.88 and 0.93 cm), respectively. *Ocimum basilicum* also significantly minimized the growth of *Fusarium oxysporum* (0.92 cm) using the same solvent concentration. It could be concluded that the studied plants are promising in the treatment of pathogenic fungi when treated using the appropriate solvents and concentration.