A Study of the Effect of Alcoholic and Aqueous Extract of Salvia officinalis on the Disease of the Plant Fungus Fusarium

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The Kingdom of Saudi Arabia aspires to achieve food security despite obstacles including and abundance of desert ranges and the spread of plant diseases. Since ancient times, medicinal plants have been used to treat many diseases due to their contents of rich effective organic compounds. This study will be conducted on the effectiveness of aqueous and methanolic extracts of Salvia officinalis and establish the characteristic profile of the extracts on Fusarium solani (Fsp). This study was conducted to evaluate the effectiveness of methanolic and aqueous extracts Salvia officinalis as antifungal against Fsp. The experiments were designed according to CRD using the third repeater for each transaction and tested the differences based on the test of the least significant difference at a significance level of 0.05. The inhibition in the growth of Fsp was observed through all different concentrations of the plants extracts, especially the 4 and 6 mg/ml concentration. This inhibition effect of Salvia officinalis extract on the Fsp growth is dose-dependent, as it increases in conjunction with higher doses. In addition, the study indicates that the methanolic extract of the plants has a significant higher inhibitory potency than that of the aqueous extract against Fsp. The study recommends highlighting the effective compounds in Salvia officinalis and using them to reduce the spread of harmful organisms, which represent hazards to both the plants and the environment.

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