

عنوان مقاله:

Evaluating Antibacterial Activity of In Vitro Culture of Ajwain (*Trachyspermum copticum*) Extract and Comparison with Seed Extract and Essential Oils

محل انتشار:

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نویسندگان:

Tahereh Shokrian - *Department of Agronomy and Plant Breeding, Aburaihan Campus, University of Tehran, Tehran, Iran*

Seyed Ahmad Sadat Noori - *Department of Agronomy and Plant Breeding, Aburaihan Campus, University of Tehran, Tehran, Iran*

Ghorban Ali Nematzadeh - *Genetics and Agricultural Biotechnology Institute of Tabarestan (GABIT), Sari agricultural sciences and natural resources university, Sari, Iran*

Seyed Mohammad Alavi - *Genetics and Agricultural Biotechnology Institute of Tabarestan (GABIT), Sari agricultural sciences and natural resources university, Sari, Iran*

خلاصه مقاله:

Trachyspermum copticum (Apiaceae) is an annual plant which grows in Iran. The fruits of *T. copticum* (Ajwain) traditionally were used as diuretic, carminative, and antihelmentic. Some biological effects of Ajwain such as antiviral, antifungal and antioxidant activities have been confirmed. The objective of the present investigation was to evaluate the antibacterial activity of extracts of callus and seed and essential oil of Ajwain against some bacterial strains (*Pseudomonas viridiflava*, *Pseudomonas syringae* pv. *syringae* and *Escherichia coli*). The extracts and essential oil were prepared and the antibacterial activity was evaluated via growth inhibitory zone assay using disc diffusion agar technique. Minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) was measured by micro broth dilution assay. The results revealed no significant effect for callus extract, however, the effect of seed extract and essential oil on tested bacterial strains was statistically significant. The greatest impact was observed for essential oil and inhibition halo diameter was reported 28.5 mm for *P. syringae* pv. *syringae*, MIC and MBC were measured 1.56 and 3.12% v/v, respectively.

کلمات کلیدی:

antibacterial activity, *Trachyspermum copticum*, callus

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