سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها گواهی ثبت مقاله در سیویلیکا CIVILICA.com

عنوان مقاله:

Control of Aspergillus flavus, the major producer of aflatoxin, by garden thyme (Thymus vulgaris L.) extract

محل انتشار:

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خلاصه مقاله:

In this study the effect of garden time (Thymus vulgaris) extract on the growth of Aspergillus flavus, the major producer of aflatoxin, was evaluated in vitro. The assessment was done by conducting an experiment as a completely randomized design with six treatments and four replications. The treatments were four concentrations of garden time extract (150, 300, 450 and 600mg/ml) and two controls (distilled water and fungicide solution). Each treatment was applied to the fungus by diffusing through a paper disc loaded with each treatment and placed in the center of a plate of PDA medium inoculated with spore suspension of the fungus. Measuring the average radius of A. flavus growth inhibition zone around the paper discs loaded with each of the treatments indicated that compared to the negative control. three concentrations of garden time (300, 450 and 600mg/ml) could significantly inhibit mycelial growth of the fungus. After the treatment fungicide, the highest growth inhibition zone radiuses, 8mm and 6.5mm, were those of 600mg/ml and 450mg/ml of garden time extracts, respectively. Moreover, the rate of growth inhibition was concentration dependent. Considering these results it seems that garden time extract is potentially a natural .alternative for controlling A. flavus mold

کلمات کلیدی:

Thymus vulgaris, growth inhibition natural fungicide

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