Microbial Assessment of Fenugreek Paste during Storage and Antimicrobial Effect of Greek Clover, Trigonella foenum-graecum

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Abstract : In this study, antimicrobial effect of Greek clover was determined with usage of MIC (minimum inhibition concentration) and agar diffusion method. Moreover, pH, water activity and microbial change were determined during storage of fenugreek paste. At first part of our study, microbial load of spices was evaluated. Two different fenugreek pastes were produced with mixing of Greek clover, spices, garlic and water. Fenugreek pastes were stored at 4 &deeg;C. At the second part, antimicrobial effect of Greek clover was determined on Escherichia coli, Staphylococcus aureus, Bacillus subtilis, Debaryomyces hansenii, Aspergillus parasiticus, Candida rugosa, Mucor spp., when the concentrations of Greek clover were 8%, 12% and 16%. According to the results obtained, mould growth was determined at 15th and 30th days of storage in first and second fenugreek samples, respectively. Greek clover showed only antifungal effect on Aspergillus parasiticus at previously mentioned concentrations.

1

Keywords : antimicrobial, fenugreek, Greek clover, minimum inhibition concentration

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