ANTIMUTAGENIC ACTIVITY OF SOME PLANT EXTRACTS ON SOME BIOLOGICAL SYSTEMS

By

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B. Sc. Agric. Sci.(Genetics)

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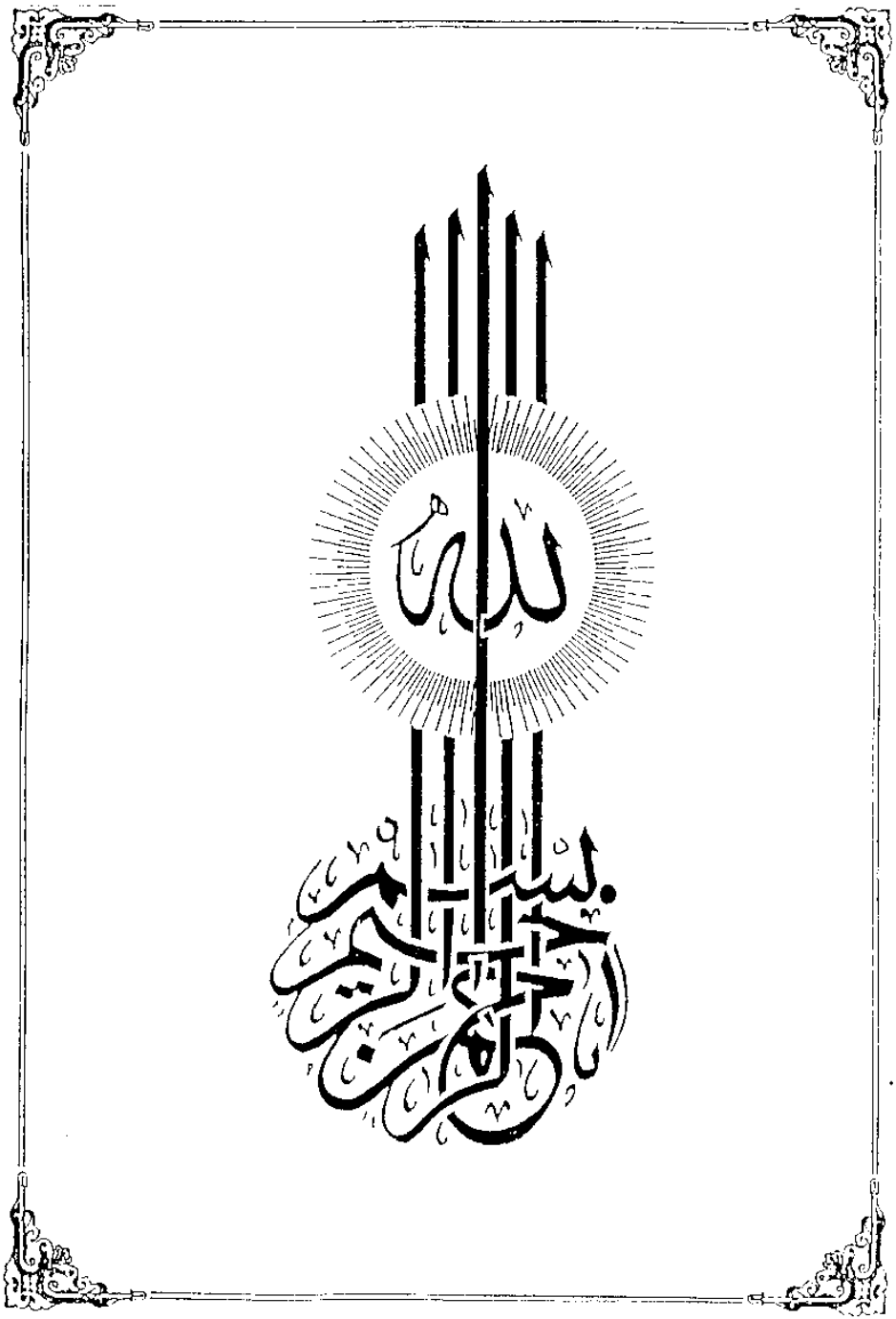

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ABSTRACT

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The main aim of the present investigation is to evaluate the efficiency of two water extracts of garlic (*Allium sativum*) and black cumin (*Nigella sitiva*). In order to achieve this goal, three tester strains D_7 and D_{61M} of yeast and ATE of Drosophila were used. The first two strains (D_7 and $D_{61.M}$) are commonly used for detecting gene conversion, mitotic crossing over, reversion, and aneuploidy, while the third strain (ATE) can be used for detecting aneuploidy and chromosomal aberrations in germ line cells of Drosophila. Sodium azid was used as a positive control. The experiments were done by adding the plant extract to the mutagen either pre or post or at the same time. The results indicate that the extract of black cumin could be used for antimutagenic treatments, while the water extract of garlic needs further study to assure the results.

Key Words : mutagenic, antimutagenic, garlic, (*Allium sativum*), Black cumin (*Nigella sitiva*), sodium azid, *Saccharomyces cereviciae*, *Drosophila melanogaster*

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The most compassionate The most merciful

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