بسم اللّه الرحمن الرحيم

HOSSAM MAGHRABY

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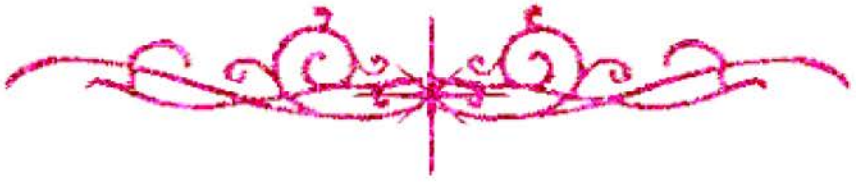

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بالرسالة صفحات

لم ترد بالأصل

HOSSAM MAGHRABY

GENETIC STUDIES ON KHELLA (AMMI VISNAGA L.)

BY

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B. Sc. Agric. (Genetics) Ain Shams Univ. (1979)

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Faculty of Agriculture

Ain Shams University

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ABSTRACT

Magdy Ahmad Abd El-Hamid Al-Kordy, Genetic Studies on Khella (*Ammi visnaga L.*)
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The main aim of the present study is to evaluate the genetic variability through tandem selection of 33 khella (*Ammi visnaga L)* genotypes that considered as a main source of khellin and visnagin which mainly used as an antispasmolytic of urinary tract. Data were recorded on seven quantitative characters namely fruit yield components. A considerable range of phenotypic, genotypic and environmental variation was noted for all the characters. The estimates of heritability and genetic advance as percentage were calculated. The effect of the two mutagens; γ - rays and sodium azide was studied through eight selected genotypes. Presowing mutagen treatment was proposed to increase the genetic variability especially fruit yield components and active ingredient (khellin and visnagin).

Mutagenic treatments caused marked effect on the quantitative characters, developmental behavior, photosynthetic pigments and active constituent. This was appeared through analysis of variance and estimates of heritability values. These results were obviously detected by thin layer chromatography for 14 components either qualitative or quantitative analysis.

KEY WORDS :
- (*Ammi visnaga L*), khella.
- Quantitative characters.
- Stabilizing selection.
- Heritability, Genetic advance.
- Covariance, regression, correlation.
- Gamma irradiation, sodium azide.
- Thin layer chromatography (TLC).
- Fuoranochromones, Furocoumarines.
- Khellin, visnagin.