

- Document Type** : Thesis
- Document Title** : STUDY THE GENETIC EFFECTS OF RHAZYA STRICTA LEAVES EXTRACT IN ROOT TIP MERISTEMS OF VICIA FABA
دراسة التأثيرات الوراثية لمستخلص أوراق نبات الحرمل في الخلايا الإنشائية لقمة جذور نبات الفول البلدي
- Document Language** : Arabic
- Abstract** : Higher plants used extensively in traditional medicines are increasingly being screened for their role in modulating the activity of environmental genotoxicants . Rhyza stricta Decne is small glabrous erect shrub with a smooth central stem and dense semi-erect branches which grows commonly in the Arabian Gulf region and the Indian subcontinent . This study has con-cerened ware tok care of the answer of an inportant coestaon waths is das the leaves of R.stricta water extract of genetic effect or no ? and if there is a genetic effect is it postive or negative or in another word the leaves of R.stricta water extract cause a decrease or an increase in the activity of environmental genotoxicants. To determine the effect of R.stricta , plant extracts from fresh leaves were prepared using liquid nitrogen . The seedling of vicia faba will be treated with R.stricta extracts at different doses (5, 10, 20, 30, 50, 150, 200g/l) and different intervals. The result of the last seven treatments can be summarized as follows: 1- In all treatments have lead to the increase of mitotic index, when compared with the control. 2- In all treatments have lead to the increase of mutation frequency, when compared with the control. 3- In all treatments have lead to a decrease of normal mitotic stages, when compared with the control. 4- In some treatments have lead to a decrease of mutation mitotic stages, and some treatments have lead to a decrease of mutation mitotic stages, when compared with the control. 5- All treatments have caused different kinds of mitotic abnormalities and chromosomal aberrations, which were generally as follow: change percentage of mitotic phases, C-Metaphase, Stickiness, Break and Fragments, Bridges, Tripolars, Polyploidy, Rings, Binucleates, and disturbancee. In single treatment with heavy metal the highest percentage of aberration (41.87%) appeared after the treatment with (30g/L), and the most frequent kind of these aberrations was Break, fragments (76,91%), and little frequent kind of these aberrations was Polyploidy(0.6(
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