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Effects of chemical mutation EMS and radiation UV-C on morphological & phenotypic characteristics of the Coriander (*Corianderum Sativum* L.)

*** Zabihollah Mohammad Alipour**
MA in agriculture biotechnology, Isfahan Branch, Payam Noor University, Isfahan, Iran
Email: (Zabihalipoor@yahoo.com)
Roya Razavi Zade
Member of scientific board of Najaf Abad -Isfahan Branch, Payam Noor University, Isfahan, Iran
Email: (razavi.roya@gmail.com)
Behrooz Mir Derikvand
PhD, Department of Agronomy, Karaj Branch, Islamic Azad University, Karaj, Iran
Email: (Hajbehrozamraei@yahoo.com)
Hadi khavari
MSc student, Department of Agronomy, Khorramabad Branch, Islamic Azad University, Lorestan, Iran
Email: (2006.khavari.hadi@gmail.com)

**** (Corresponding Author: Zabihollah Mohammad Alipour)***

Abstract

In order to examine the effect of EMS chemical mutation and UV-C ray ON 18 morphological properties of coriander it was examined in generation M2. During 8 hours, the growing seeds were treated with EMS with 4% concentration and then the grown plants were exposed to UV-C ray. Results in generation M1 (the first year) and M2 (the second year) and analyzed by the statistical method SPSS and excel 2007 and compared with the control plants. This research results indicate that the effect of EMS and UV-C treatment causes to reduce plant height, number of seed in each seedling, increasing flower diameter etc. extremely. This research aims to crate mutation in the coriander and achieve to a cultivar resistant to drought and environmental tensions and produce more medication essence with regard to the coriander medication effects and its medical usages. By identifying mutated plants and their reproduction by one of common bred methods a cultivar with agricultural and medication properties can be obtained.

Keywords: concentration, EMS, UV-C ray, resistant cultivar.