



Investigation of Gamma Rays on Oil And Chlorophyll Content, Number of Capsule and Seed on the M2 Generation of Purslane (*Portulacaoleracea* L.)

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Breeding activities are based on diversity and selection. Techniques of induction mutation are useful methods for increasing genetic diversity in plant species. In order to investigate the effect of gamma rays on some of the morphological and phytochemical traits of purslane, the seeds of this plant were treated by gamma rays doses at 0, 200, 300, 400 and 500 grays. Irradiated seed were cultivated to produce the M2 generation. In the M2 generation, traits such as number of capsules in plant, number of seed in capsule, seed oil content, total chlorophyll content were measured. The differences among gamma ray doses for all studied traits were significant at 1% probability level. The highest number of capsules in plant was observed in 300 gray of doses, which had a significant difference with other treatments. The maximum number of seeds in capsule was observed at 500 grays, which did not have significant difference with 400 grays. The maximum of oil content was obtained at 400 grays of doses, and maximum of total chlorophyll was observed in control which had not a significant difference with 500 grays.

Keywords: Mutation breeding, Oil content, Chlorophyll, Portulaca, Seeds

References

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