



RESEARCH ARTICLE :

Effect of gamma rays on seed germination, plant survival and quantitative characters on two varieties of soybean [*Glycine max.* (L.) Merrill.] in m₂ generation

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SUMMARY : A study was undertaken on induced mutagenesis with two varieties of Soybean, BSS-2 and RKS- 18. The mutagen used was Gamma rays (50,100,150,200 and 400 Gy). A difference was observed between the varieties BSS-2 and RKS-18 in the degree of tolerance to the mutagens. Germination and survival percentage in both the varieties was lower as compared to control. Reduction in germination percentage was associated with increase in dose of mutagen in both varieties BSS-2 and RKS-18. The reduction in germination was found more in the variety BSS-2 than the variety RKS-18, proving it to be more sensitive towards Gamma rays. Survival percentage in both the varieties BSS-2 and RKS-18 in M₂ decreased with higher doses of Gamma radiation, though there was slight increase in survival percentage at 100 Gy in variety RKS-18.

KEY WORDS:

Induced mutagenesis,
Gamma rays,
Mutagen,
Germination
percentage, Survival
percentage

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