Combined mutagenesis in groundnut (Arachis hypogaea L.)

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ABSTRACT : In M_1 generation, the germination percentage was reduced due to various mutagenic treatments under field as well as laboratory conditions. Reduction in germination was found maximum in higher dose and/or concentration of the mutagens. The progressive decreased in seedling growth viz. root and shoot length with corresponding increased in dose or concentration of gamma rays, ethyl methane sulphonate and their combinations was observed in M_1 generation. The pollen sterility was estimated during M_1 generation and it was found increased significantly with an increased in doses and/or concentrations. Day to 50 per cent flowering and mortality were also found increased with an increase in doses and/or concentrations of the gamma rays, ethyl methane sulphonate and their combinations.

Key Words: Mutagens, groundnut, TAG-24, gamma rays, EMS.