

EFFECT OF GAMMA IRRADIATION AND EMS ON *IN VITRO* SHOOT TIP CULTURES OF BANANA VARIETY NANJANAGUDU RASABALE

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Abstract: Banana is one of the most important crops grown in the country for domestic and export markets. Variety *Nanjanagudu Rasabale* is grown in parts of Mysuru district of Karnataka known for its unique aroma, favour and taste, is susceptible for fusarium that causes Panama wilt. Investigations on development of mutants induced resistance or tolerance using gamma rays and EMS were carried out using *in vitro* shoot tip cultures. There was no mortality with cent per cent survival and regeneration of explants when treated with gamma rays at different dosage and EMS concentrations. However, a slight change in stem colour was noticed with the use of EMS. The growth of explants was almost normal compared to untreated ones but a slight reduction in the rate of growth and proliferation was observed in both gamma and EMS treated samples. Rooting was also normal in presence of IBA. Unfortunately, all the *in vitro* grown plantlets have become susceptible when treated with fusarium inoculums, the plants turned yellow and wilted gradually over a period of time.

Keywords: Gamma rays, Banana variety, Crops

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