Response of chemical and physical mutagens on yield of papaya (Carica papaya L.)

DHARMENDRA YADAV AND AMAR SINGH

ABSTRACT: An experiment was conducted at Horticulture Garden, Department of Horticulture, C.S. Azad University of Agriculture and Technology, Kanpur during two consecutive years. The main objective was to produce qualitative and quantitative fruits yield of papaya for fetching good return with use of chemical and physical mutagens. The maximum fruit yield of papaya was recorded by 24.86 kg/plant with the use gamma irradiation 10 kr, followed by control (24.01 kg/plant). Application of EMS mutagen @ 0.2% and 0.4% gave fruits by 18.38 kg/plant and 18.64 kg/plant, respectively. It is worth while to mention here that the lower doses of chemical and physical mutagens use on papaya gave better response over the higher doses. The growth and yield trails was found in concordance to fruits yield of papaya.

KEY WORDS: Chemical mutagen, Chemical substance, Nutritional need, Physical mutagen


Article Chronical: Received: 10.10.2014; Revised: 01.11.2014; Accepted: 18.11.2014