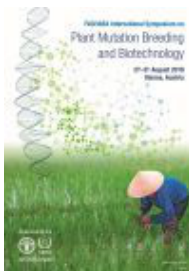


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ASCENDANCY OF PHYSICAL MUTAGEN ON CALCIUM CONTENT IN MEDICAGO SATIVA L.

In India, Alfalfa (*Medicago sativa* L.) is an important fodder crop which is rich in calcium, minerals, proteins and other nutrients. It not only increases fat value, but also increases the milk yield. Gamma irradiation has been effectively used to induce useful mutation and enrich the biochemical components in alfalfa. Seeds of *Medicago sativa* L. were irradiated with 5KR, 20KR, 35KR, 50KR and 65KR cobalt doses respectively. Further, the seeds were sown in the fields under a Randomized Block design. The entire plant material was collected at maturity stage, dried and reduced to powder. The powder was analysed to determine the calcium content using Flame Photometry. Gamma irradiation showed stimulating effect on increasing calcium content of Alfalfa in lower doses of cobalt 60. It was also observed that calcium content in aqueous extract was increased as compared to methanolic extract. From the present investigation it can be concluded that gamma radiation can be effectively used in Alfalfa mutation breeding programmes for fodder quality improvement as it is useful in increasing calcium content.

Country or International Organization

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Track Classification: Enhancing agricultural biodiversity through new mutation induction techniques