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IRRADIATION-INDUCED MUTANT FROM COARSE GUINEA GRASS

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The ubiquitous wild guinea grass (Panicum maximum Jacq.), locally known as Guinea A, is beset with many undesirable forage qualities. Coarseness of the forage; incidental to hastened maturity and high crude fibre content, low protein levels and a low leaf to stem ratio accompanied with irritating hairy surface, are some of the undesirable plant characters. It's wide ecological adaptation coupled with a dry season forage production are characters which merit consideration for a parent material.

With the idea of improving the forage qualities of this grass, sets of the parent material were subjected to Gamma Rays mutagent (Cobalt 60), at the Central Agriculture Research Institute, Peradeniya. At 30 KR dose two useful bud mutant was isolated.

The mutant grass, so obtained, had a four-fold increase in crude protein (21.3%) with an enhanced digestibility (61.1%), than the parental type. A slow maturity of the herbage with a greater leaf component and production of a large quantity of productive tillers are the improved plant characters obtained towards quality forage production. There was a desirable change in the habit of growth to a short stature grazing type. The seeds of the mutant are non-viable, more desirable in the ley farming system of forage production.