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**INDUCTION OF CHLOROPHYLL MUTANTS IN COMMON BEAN UNDER THE ACTION OF CHEMICAL MUTAGENS ENU AND EMS**

DIANA LILOVA SVETLEVA

Department of Genetics and Plant Breeding, Agricultural University – 4000 Plovdiv, BULGARIA, e-mail: [svetleva@yahoo.com](mailto:svetleva@yahoo.com)

**ABSTRACT**

Effect of treatment with different concentrations of N-nitroso-N-ethyl urea (ENU) and etylmethan sulfonate (EMS) on seeds of Bulgarian common bean Dobroudjanski 7, Dobroudjanski 2, Plovdiv 10, Plovdiv 11M and snap bean Tcher Starozagorski varieties, for induction of chlorophyll mutants, was studied. It was established that investigated varieties manifested specific reactions to the treatment with ENU and EMS. Different mutation frequencies and width of mutation spectra were induced under the action of different concentrations of the two applied mutagens. ENU induced chlorophyll mutants with higher frequency in all studied varieties, in comparison to the action of EMS. Sixteen types of chlorophyll mutants were found, for all studied varieties, and mutagenic treatments. Mutant types chlorina (19,8%), xantha (19,3%), viridissima (15,4%) and chimerical leaves (9,1%) were with the highest frequency, comparing to the total number of observed mutants. Results were statistically elaborated by the Fisher's method "φ".

**KEY WORDS:** Mutagens, ENU, EMS, chlorophyll mutants, *Phaseolus vulgaris* L.

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