



## **Characterization of Grass Pea (*Lathyrus sativum*) Genotypes Stored in Albanian Gene Bank**

Valbona Hobdari<sup>1\*</sup>, Belul Gixhari<sup>1</sup>, Fetah Elezi<sup>1</sup>, Doriana Bode<sup>1</sup>, Sonia Dias<sup>2</sup>, Zamir Libohova<sup>3</sup>

<sup>1</sup>*Agricultural University of Tirana, Albania;* <sup>2</sup>*Sonia Dias, Eurisco Coordinator, Roma, Italy;* <sup>3</sup>*USDA-NRCS-National Soil Survey Centre, 100 Centennial mall North, Federal Building, Lincoln, NE, 68508-3833, USA*

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**Abstract:** The Albanian germplasm of the grass pea collection is a valuable group of legumes species for animal feed. However, there is lack of data about the extent and nature of the variability of these species. Twenty four local forms and breeding lines of grass peas collection, evaluating 13 quantitative morphological characters and 15 qualitative characters, were used for characterization of *Lathyrus sativum* genotypes, stored in Albania gene bank. The study was carried out in the didactic field of Agricultural University of Tirana, during two years. The aim of study was, evaluating the major morphological characteristics of grass pea genotypes, identifying and characterizing the grass pea forms, and determining patterns in Albanian populations of potential forage species of the *Lathyrus sativum* genotypes using multivariate correlation, PCA and cluster methods. ANOVA analysis proved the presence of an important variability in the study materials. Field and laboratory tests permitted the first characterization of the morphological diversity and determination of the patterns of variation of species with forage value within the Albanian grass pea collection. PCA and cluster analysis identifying traits with agronomic interest which account for genetic diversity and the demarcation of distinguishable morphological groups will facilitate the maintenance and agronomic evaluation of the collections.

**Key words:** *Grass pea, legumes, genotypes, characterisation, diversity*

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\* Corresponding: E-Mail: [bona\\_hobdari@hotmail.com](mailto:bona_hobdari@hotmail.com); Tel: ++355 68 27 37 287;