



Potential Use of Wild Allium Germplasms as Native Ornamental Species in Iran

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Abstract

Evaluation of the native species for possible ornamental potential is valuable to utilize wild germplasm for developing new ornamental plants. Allium is one of the major genera in monocotyledons which consist of more than 900 plant species in the world; moreover a rich Allium germplasm is reported in Iran with about 135 species. In this study a collection of Allium species mainly from North-east of Iran were prepared. Various studies for characterization of morphological and ornamental traits, life cycle and genetic diversity analysis were performed on Allium collection. The results revealed the existence of high morphological and genetic diversities among different species. This is beneficial for determining different usage for the diverse species. For example the very short species like *A. kuhsorkhense* are ideal to be used in rock gardens while the very tall species like *A. giganteum* and *A. stipitatum* are potential for landscaping or cut flower. Many more studies are under way to achieve the desired species of native Allium to ornamental plant industry. Interspesific hybridisation has been designed for releasing the new cultivars. Meanwhile tissue culture studies for developing optimized protocol for regeneration of the potential species are being performed.

Keywords: Native species, Interspecific hybridization, Genetic diversity, Tissue culture

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