

## GENETIC DIVERSITY OF *LOTUS CORNICULATUS* BASED ON SSRs MARKERS

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### *Lotus corniculatus*, SSRs, genetic diversity

*Lotus* is a large polymorphic and widely distributed genus, that comprises approximately 200 annual and perennial species. Birdsfoot trefoil (*Lotus corniculatus* L.) is a strongly cross-pollinated species. It is the most agriculturally important species of the genus, since it has a high nutritive value and is non-bloating when grazed directly by livestock. Birdsfoot trefoil is native to Europe and western Asia, with a probable regional centre in the Mediterranean basin, where the greatest diversity of species occurs.. The range of phenotypes found in birdsfoot trefoil is believed to be the result of adaptation to the environments in which it is grows and through continual intraspecific hybridization. It is also emerging species in several Mediterranean environment, since it appears to have potentiality to develop new perennial legume cultivars for phase farming to reduce dryland salinity. Moreover, birdsfoot trefoil is poorly studied and little information is available on the genetic variation in the species. SSR markers, previously identified in *Trifolium pratense* and *Lotus japonicum*, were used to assess the genetic diversity among 11 *Lotus corniculatus* natural populations collected in Central and Southern Italy. High polymorphism was found, both within and between accessions, with populations from Southern Italy clearly different and identifiable.