

## Characterization of *Lotus glaber* germplasm from Buenos Aires Province – Argentina

[ADRIANA ANDRÉS](#)\* and BEATRIZ ROSSO

INTA - EEA Pergamino cc31 2700 Pergamino, Provincia de Buenos Aires, Argentina

\* Corresponding author

[click here for Spanish version](#)

The well known quality of Argentinean meat relay mainly on grazing on grasslands and pastures. During the last years beef production system has moved to marginal areas due to the expansion of agriculture. Among species adapted in those restrictive areas, *Lotus glaber* has adaptation to periodic drought and flooding, and besides shows high nutrition quality. Genetic breeding of this species is not high developed. The main objective of breeding is to increase forage yield in environments with high limitations for growing and development of forage legumes. The characteristics to overcome in *L. glaber* by genetic breeding are those related to vigour of establishment, plant persistence, and forage and seed yield. At the EEA-INTA Pergamino several activities related to collection and conservation of genetic resources at the Germplasm Bank, and development of new cultivars were performed from years 2004 to 2006. Thirty five populations collected in lowlands of Buenos Aires Province, from latitudes 33°47' to 37°39', and 59°02' to 60°52' were studied. The analysis of genetic variability for those attributes of agronomic interest was the principal goal for the selection program. Research was realized in greenhouse, and in the field in both, single plants and sward. Data were analyzed by ANOVA and multivariate tests. Genetic, phenotypic variance, heritability in broad sense, and lineal correlations were obtained. Results confirm a broad genetic variability for those attributes studied in naturalized populations from Buenos Aires Province that could be utilized in the breeding program. Characterization done by INTECH for salinity tolerance allowed composing genotypic pools with high growing vigor and foraging production. These selected germplasm will be studied in order to select plants with the aim to obtain a cultivar with outstanding performance for marginal soils.