

BIOLOGICAL COLLECTIONS: THE SOUTHERN FORAGE GERMPLASM BANK AND CNPO HERBARIUM

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ABSTRACT

The Southern Forage Germplasm Bank (BAG) is a collection of forage species, mainly native grass genera *Bromus* L. and *Paspalum* L., studied for different agronomic aspects. The BAG is located at Embrapa Southern Livestock in Bagé and holds accessions in a wide range of forage species to maintain variability. The main species are (14) *Bromus auleticus* Trin. ex Nees, (8) *B. brachyanthera* Döll and (9) *B. catharticus* Vahl. The *Paspalum* genus has (59) *P. dilatatum*, (21) *P. leptum* Schult., (22) *P. notatum* Flügge, (8) *P. plicatum*, (56) *P. pumilum* Nees and (115) *P. urvillei* Steudel accessions, for the variability maintenance. There are 300 accessions of the main species in *Bromus* and *Paspalum* and a wide range of forage species. The additional biological collection, CNPO Herbarium, is also located at Embrapa Southern Livestock, in Bagé. It was founded in 1978 and has a collection of about 4,800 species, mainly Poaceae and Fabaceae. The city of Bagé is located in the region of Rio Grande do Sul, belonging to Brazilian Pampa Biome, composed of large areas of natural rangelands. Sampling expeditions aiming to improve the variability available in the genebank were conducted since 2009 in the Southern Brazilian Rangeland, including two biomes: Brazilian Pampa and Atlantic Forest. The objective of this genebank is to conserve the diversity of forage species and development of forage cultivars through the Forage Breeding Program agreement signed between Embrapa, the Federal University of Rio Grande do Sul (UFRGS), and SULPASTO (the Brazilian South Association for the Promotion and Research of Forage). In the BAG, seeds are maintained at 4 °C, seedlings in the greenhouse, and accessions are planted at Embrapa experimental areas. Each accession collected during the expeditions receives a passport number in the data bank ALELO. For the results, 19 accessions of *B. auleticus* and 16 of *Paspalum* spp. were morphologically characterized according to MAPA (Ministry of Agriculture, Livestock and Food Supply) guidelines. In conclusion, germplasm collecting expeditions conducted in the last years resulted in a large increase in species and accessions of native forage plants in the Southern Forage BAG collection. Further surveys should be conducted to explore the potential of the CNPO Herbarium, highlighting the vital connection between the Herbarium and the BAG.

KEYWORDS: *Bromus*; *Paspalum*; conservation

ACKNOWLEDGMENTS: Rede Nacional de Recursos Genéticos Vegetais da Embrapa