

NATIONAL PLANT GERMPLASM SYSTEM

Temperate-adapted forage legume genetic resources

PROJECT OVERVIEW

Temperate-adapted forage legumes are among some the most significant cultivated crops in the world. The USDA National Plant Germplasm System (NPGS) manages a large diverse germplasm collection (>13,000) of alfalfa, clover, trefoil and many of their crop wild relative accessions (plant lines). The goal of this, and other NPGS projects, is to acquire, conserve, characterize, evaluate, document, and make available agriculturally important plant germplasm to researchers and educators worldwide.



alfalfa



clover

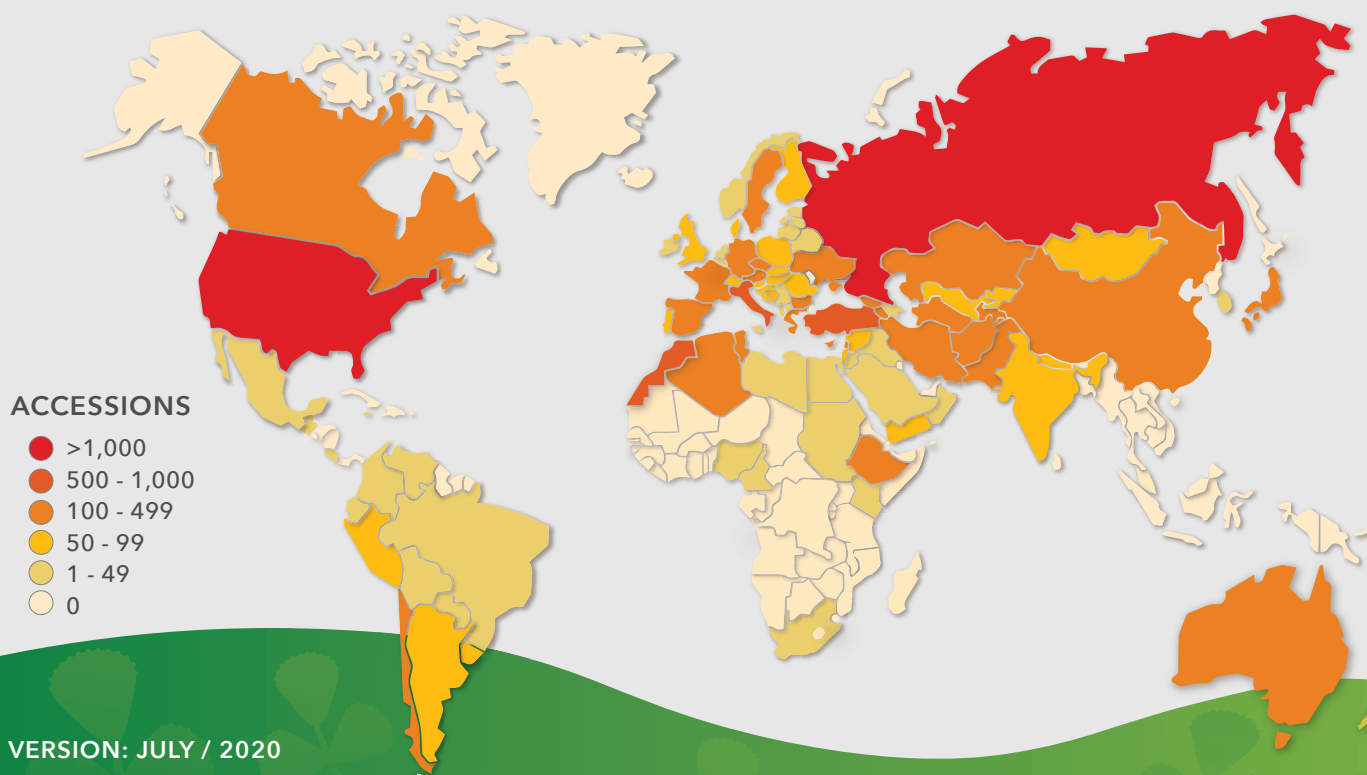


trefoil

COLLECTION HOLDINGS

		Species
Medicago (alfalfa)	<ul style="list-style-type: none"> 8,614 accessions <i>M. sativa</i> (4,083) 	80
Trifolium (clover)	<ul style="list-style-type: none"> 3,736 accessions <i>T. pratense</i> (1,344) 	99
Lotus, Acmispon, Hosackia (trefoil)	<ul style="list-style-type: none"> 997 accessions <i>L. corniculatus</i> (483) 	64

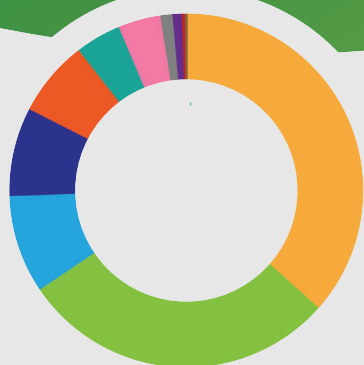
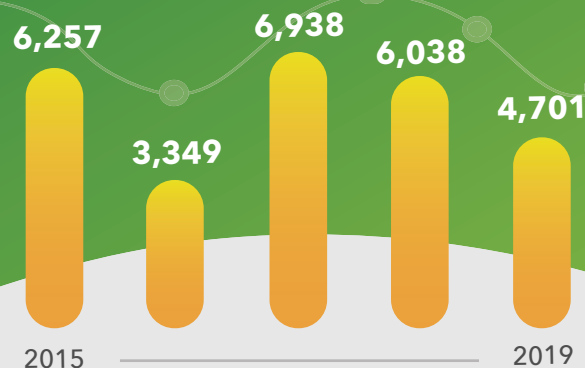
SOURCE OF ACCESSIONS



☑ DISTRIBUTIONS

27,283

Number of seed lots distributed between 2015 -2019



☐ CATEGORIES

Category of requestor to which seed was sent to over the 2015 - 2019 year period.

- U.S. State and Universities
- Foreign non-commercial
- U.S. ARS
- U.S. Commercial
- U.S. NGO
- U.S. Individual
- Foreign Commercial
- Foreign Genebank
- U.S. Other Fed. Agency
- Foreign Individual
- Foreign CGIAR

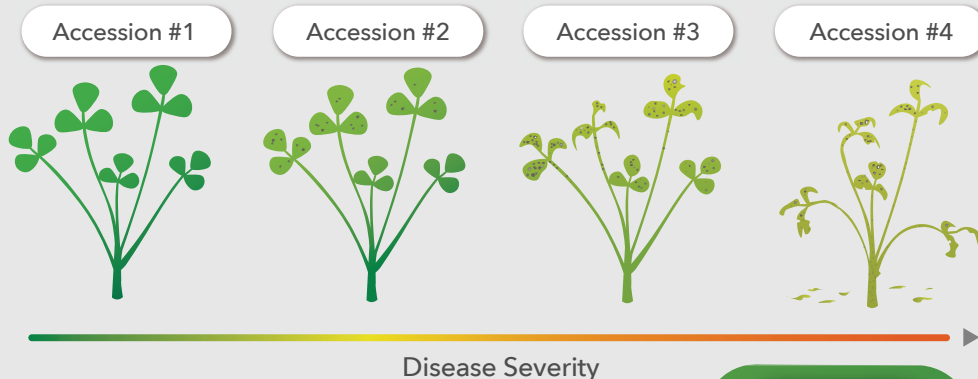
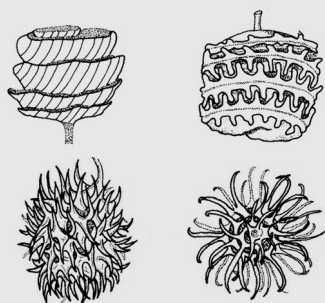
🧬 IDENTITY & INTEGRITY

Maintaining genetic identity and integrity in accessions is a high priority. All regenerations are carefully labelled, digitally imaged, and correctly classified using DNA marker technologies. During regeneration of seed, insect-proof cages are used to prevent cross-pollinations and sentinel plots are now regularly used to screen potential movement of transgenic traits into the collections.

✍ CHARACTERIZATION & EVALUATION

Highly heritable characters are collected for germplasm accessions during regenerations with additional subsets of the collection evaluated for agriculturally important traits. Traits might include disease/insect resistance, heat/drought tolerance or focus on forage quality and could be incorporated into modern day cultivars by breeding.

Medicago Pod Diversity (IBPGR, 1991)



📄 ACCESS & DOCUMENTATION

Passport, characterization and evaluation data as well as germplasm can be accessed for TFL genetic resources publicly via the GRIN-Global database.



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Connect with ARS

