

Temperate forage legume germplasm of the USDA National Plant Germplasm System.

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Alfalfa, and other temperate forage legumes (TFL), are among some the most significant agricultural crops in the United States. Alfalfa alone was the fourth largest crop by planting area in 2014 with over 4 million acres. Plant diseases, changing climatic conditions, and the constant demand for improved productive forage varieties means that plant breeders need to find sources of ‘new’ traits in germplasm collections. The USDA National Plant Germplasm System’s temperate forage legume germplasm is managed by a team of scientists, technicians and support personnel of the Western Regional Plant Introduction Station in Pullman, WA. Germplasm seed is stored and distributed from the station’s home on Washington State University (WSU)’s main campus in Pullman, WA. All regeneration, characterization and evaluation efforts are carried out at the worksite in Prosser, WA, collocated with WSU’s Irrigated Agriculture Research and Extension Center. Currently, the TFL collection encompasses over 19,149 accessions in three priority genera (*Medicago*, *Trifolium*, and *Lotus*) with some original samples dating back to the early 1900s. The *Medicago* genus consists of 80 species and 11,899 accessions, the *Trifolium* genus contains 100 species and 5,874 accessions and there are 40 species and 1,376 accessions in the *Lotus* genus. Both *M. truncatula* (406 accessions) and *L. corniculatus* (677) are model plant species with sequenced genomes. A small quantity of seed is distributed for requested accessions to support research, education and extension purposes. Resources are dedicated to supporting the maintenance of the germplasm collection (i.e., regenerations) and accession-associated information in the Germplasm Resources Information Network (GRIN-Global) database. Acquisition of priority germplasm to fill identified collection gaps can be targeted as resources permit. Research efforts are limited to extramurally funded and collaborative efforts.