

NATIONAL PLANT GERMPLASM SYSTEM

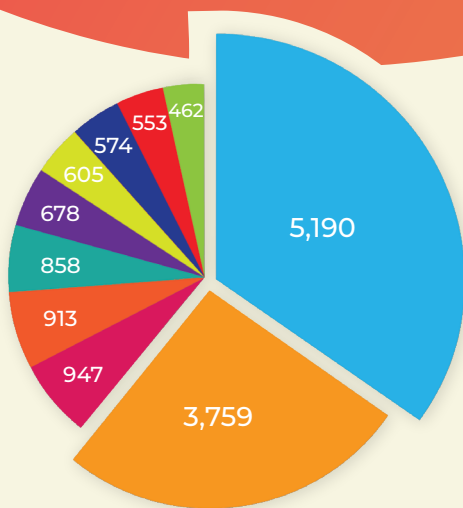
Seed of Success Collaboration

PROJECT OVERVIEW

The USDA National Plant Germplasm System (NPGS) has been an integral partner in the Bureau of Land Management-led Seeds of Success (SOS) program. The SOS is a U.S. national native seed/plant collection and conservation program, which has provided more than 18,000 accessions (entries) into the NPGS since 2005. As resources permit, the NPGS strives to ensure long-term conservation of these important plant germplasm collections by monitoring viability, regenerating seed, and making seed and associated data available to researchers.



Prairie coneflower
Ratibida columnifera



COLLECTION HOLDINGS

SOS holdings in the NPGS are taxonomically diverse represented by 147 Families, 1,127 Genera and 4,587 species. The ten families with the most accessions are shown to the right.

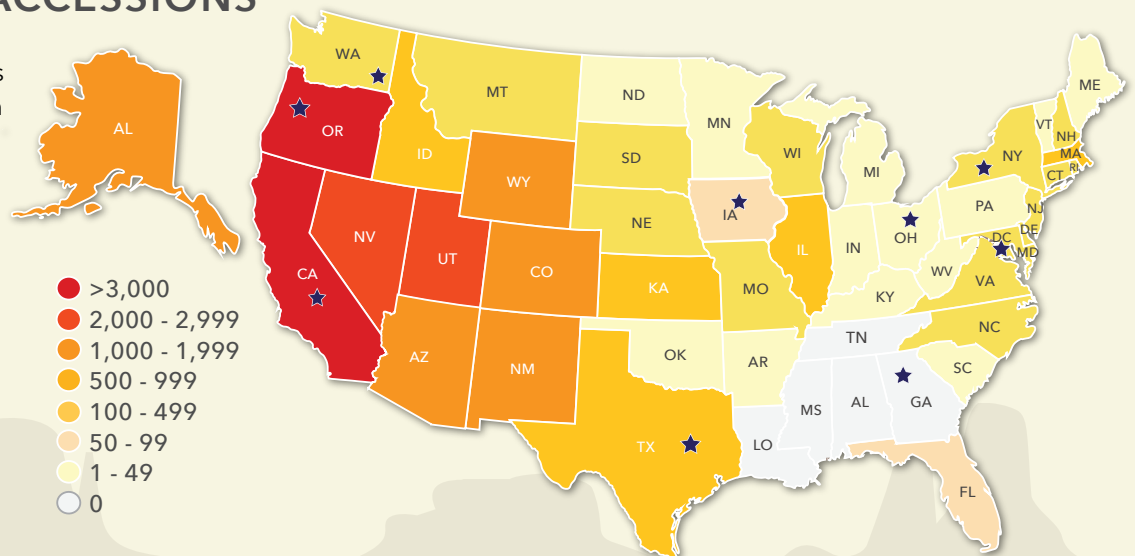
FAMILY	ACCESSIONS	GENERA	SPECIES
Asteraceae	5,190	212	933
Poaceae	3,759	86	376
Fabaceae	947	56	328
Cyperaceae	913	16	248
Rosaceae	858	35	153
Plantaginaceae	678	17	183
Chenopodiaceae	605	14	48
Polygonaceae	574	10	127
Apiaceae	553	29	123
Onagraceae	462	13	111

SOURCE OF ACCESSIONS

U.S. native plant collections originate mostly in western states on public lands.

★ NPGS genebanks with SOS holdings

Pullman, WA	14,311
Columbus, OH	3,614
Griffin, GA	1,089
Ames, IA	950
Washington, DC	750
Parlier, CA	140
Corvallis, OR	120
College Station, TX	30
Geneva, NY	17



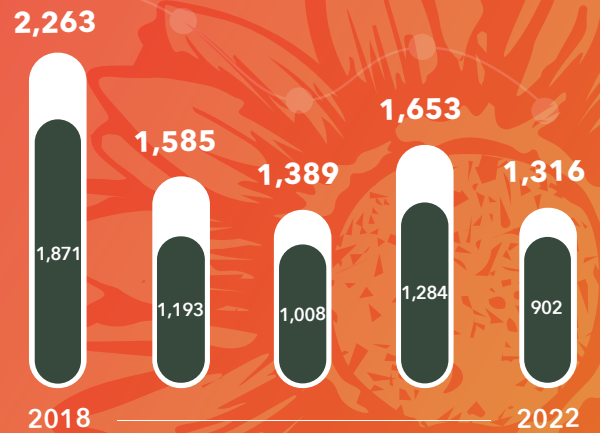
☑ DISTRIBUTIONS

8,206

Number of SOS seed lots distributed by NPGS

5,356

Number of SOS seed lots distributed by the Pullman genebank.



☑ CHARACTERIZATION & EVALUATION

Native plant germplasm is characterized and evaluated for genetic variability in landscape restoration and agricultural traits in multi-site common garden field trials. Research will continue to focus on best management practices for long-term genetic resources conservation including aspects of seed regeneration and storage.



☑ HISTORY OF SOS PROGRAM



- In 2001 BLM/Millennium Seed Bank, Royal Botanic Gardens began partnership.
- Since then, ongoing program to collect, conserve, and develop native plant materials.
- In 2005, NPGS partnered with SOS to collect and conserve key native plant materials.

☑ VIABILITY TESTING

Colleagues at the USDA National Laboratory for Genetic Resources Preservation (NLGRP) in Fort Collins, CO store back up samples as well as perform initial germination and monitor seed for losses in viability over time.



☑ ACCESS & DOCUMENTATION

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



CONTACTS

B. M. Irish
B. Hallwachs
C. Walters
P. Olwell

brian.irish@usda.gov
bailey.hallwachs@usda.gov
christina.walters@usda.gov
polwell@blm.gov

USDA-ARS PGITRU / Proseer, WA 99350
USDA-ARS PGITRU / Pullman, WA 99164
USDA-ARS NLGRP / Fort Collins, CO, 80521
DOI-BLM District Office / Boise, ID 83705



Connect with ARS

