



Quick Guide to the Seeds of Success Protocol

Program Goals

The purpose of the Seeds of Success program is to establish a national, high quality, accurately identified, and well documented native plant species seed collection. All seed collections are used to support development of geographically appropriate native plant materials for research, development, germplasm conservation, and ecosystem restoration.

Targeted Species

The collection focus of the SOS program is on species needed for restoration and rehabilitation projects. Teams may make multiple collections of species on their target species list as long as they are capturing unique populations in each collection. Collecting teams are encouraged to work with local federal land managers and their Agency SOS Coordinator to develop and execute priority target lists.

Sampling Protocol

- Only collect from wild populations
- Sample from at least 50 individuals, document the number of individuals sampled on the SOS Field Data Form
- Material collected on multiple dates can be added to the same accession throughout an entire growing season, so long as no more than 20% of the ripe seed is collected from the population on a single day
- An ideal collection is 10,000+ seed, 3,000 PLS is the absolute minimum. Collections targeting 10,000 PLS ensure sufficient seed is collected.
- Different populations are kept as separate accessions.
- Materials collected from the same population during multiple growing seasons should be kept as separate accessions.

Data Collection

The SOS Field Data Form

Use the Field Data Form (**Appendix B**) for each seed collection and fill out **all** data fields. Keep one copy of the completed forms for your records and send one copy with your seed to the designated cleaning facility. Also, email one copy to your Agency Coordinator by Dec 15th. Starting in 2024, all SOS data will occur through digital data collection tools (see **Section 11**).

Photographs

Three digital photographs for each collection shall be sent to the National Coordinating Office. One photo each of the material collected (seed), the individual plant, and the plant population (habitat). These can be sent electronically at the end of the collection season. Naming convention: {PLANTS Code_Seed Collection Reference Number_Picture Number}.

Example: NSNWR's collection of *Symphyotrichum lanceolatum* (PLANTS Code = SYLA6)

SYLA6_NSNWR-419_A.jpg

SYLA6_NSNWR-419_B.jpg

SYLA6_NSNWR-419_C.jpg

Herbarium Vouchers

Three specimens shall be collected as a record of each SOS collection.

1. U.S. National Herbarium (see Contacts for address)
 - NPS Agency Teams make labels and draft transmittal notice, retain vouchers at office to be sent in the future.
2. One to a regional herbarium (see **Appendix F** for list)
3. One to keep at your field office

Shipping and Cleaning

Each team will be assigned a designated cleaning facility. If you do not know where to send your seed, reach out to your Agency Coordinator (**Appendix H**). Always send fleshy fruit overnight mail (notify cleaning facility), and no more than 2-day shipping for dry seed. Only ship early in the week, ensuring the collection does not arrive on a Friday. A copy of the completed field data forms documenting the collection with all shipments of seed; material will not be cleaned without this documentation.

Long-term Storage and Distribution

Accessions are sub-divided for -20°C and 4°C back-up storage at the Plant Germplasm Introduction and Testing Research Unit in Pullman, WA and the National Center for Genetic Resources Preservation in Fort Collins, CO. Any seed over 3,000 PLS will remain at the cleaning facility and may be requested for specific projects. Contact the National Coordinating Office for more information.

Training and Resources

- Seeds of Success Website: www.blm.gov/sos
- Getting Started web page has more information about the following:
<https://www.blm.gov/programs/native-plant-communities/native-plant-and-seed-material-development/collection/sos-getting-started>
 - Seeds of Success mailing list – used for regular communication to collectors.
 - Training – links to register for virtual and in person training.
 - Collectors’ Call – how to register. On the first Tuesday of every month, collectors are invited to participate in the Collectors’ Call, a MS Teams meeting for all active SOS Partners. This is a forum for discussion with other collectors and raising issues and questions.
 - Digital Data Access – how to set up a data collection account. Data collection occurs through ESRI Survey123, FieldMaps, and GeoPlatform. SOS collectors must have a GeoPlatform account before they begin collecting.

Contacts

Agency Coordinators

Sarah Hill
Seeds of Success National
Curator / BLM Agency
Coordinator
sehill@blm.gov

Katie Vinzant
NPS Agency Coordinator
Katharine_Vinzant@nps.gov

Kelly Thomas
USFWS Agency Coordinator
kelly_thomas@fws.gov

Cleaning Facility Contact Information

Bend Seed Extractory – Notify when shipping fleshy fruit or collection over 50 pounds.

Shipping Address:

USDA USFS - Bend Seed
Extractory
63095 Deschutes Market Road
Bend, OR 97701

Contact:

Sarah Garvin, sarah.garvin@usda.gov
cc Malcolm Howard,
malcolm.howard@usda.gov
Phone: (541) 383-5646

Dorena Genetics Resource Center – Notify when shipping all collections.

Shipping Address:

Dorena GRC
Attn: Haley Smith
34963 Shoreview Rd
Cottage Grove, OR 97424

Contact:

Haley Smith, haley.smith@usda.gov
cc Lisa DeWeese, nicole.l.deweese@usda.gov
Phone: (541) 767-5708

Alaska Plant Materials Center – Notify when shipping fleshy fruit only.

Shipping Address:

Alaska Department of Natural Resources
Division of Agriculture
Plant Materials Center
5310 S. Bodenbug Spur
Palmer, AK 99645

Contact:

Lyubomir (Lubo) Mahlev, lyubomir.mahlev@alaska.gov
Phone. (907) 745 8782

Vouchers - U.S. National Herbarium / Smithsonian Institution

Smithsonian Institution
NMNH Department of Botany, MRC-166
10th and Constitution Ave., NW Washington, DC, 20560
Erika Gardner , (202) 633-0904, gardnere@si.edu