



# Quick Guide to the Seeds of Success Protocol

**Program Goals:** The goal of SOS is to establish high quality, accurately identified, genetically representative and well documented native plant seed collections. This material will be used to support the development of geographically appropriate native plant materials for restoration and emergency fire rehabilitation.

**Targeted Species:** Today, the collection focus of the SOS program is on species needed for restoration and rehabilitation projects, also called the “restoration list.” Species from both lists may be collected as long as they contribute to SOS programmatic goals. Teams may make multiple collections of species on their restoration target list as long as they are capturing unique populations in each collection. Collecting teams are encouraged to work with local federal land managers and the National Coordinating Office 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
- Different populations are kept as separate accessions
- Materials collected from the same population during multiple growing seasons should be kept as separate accessions

## **Field Documentation**

### **The SOS Field Data Form**

Use the Field Data Form (*Appendix 2*) for each seed collection and fill out all data fields. Keep one copy of the completed forms for your records and send it whenever you ship seed or vouchers associated with the collection. Also, email or send one copy to the SOS National Coordinating Office as soon as possible after the collection has been made to document collection of the species.

### **Photographs**

Three digital photographs for each collection shall be sent to the National Coordinating Office. They should be of the material collected (seed), the individual plant, and the plant population (landscape level). These can be sent along with the collection forms or all on a single CD or DVD at the end of the collection season. Naming convention: PLANTS Code\_Collection 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 shall be collected as a record.

1. U.S. National Herbarium (see Contacts for address)
2. One to a regional herbarium (see *Appendix 6* for list)
3. One to keep at your field office

### **Shipping and Cleaning**

Most federal SOS partners send their seed to the Bend Seed Extractory (see Contacts for address) for cleaning. Please notify the Bend Seed Extractory that seeds will be shipped and always send the seeds overnight mail or with FedEx. Include 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 back-up storage at the Western Regional Plant Introduction Station in Pullman, WA and the National Center for Genetic Resources Preservation in Fort Collins, CO (Table 1). If seed quantity is sufficient, a distribution component is included in the 4°C working collection as outlined below.

*Table 1. Seeds of Success (SOS) germplasm proportioning for long-term back-up and working collection samples.*

SOS accession seed quantity	Ratio to long-term storage at NCGRP - 20°C	Ratio to long-term storage at WRPIS - 20°C	Ratio to working collection 4°C
<6000	1/2	1/2	0
6000-7500	2/5	2/5	1/5
7500 - 30000	1/3	1/3	1/3
30000 +	2/5	2/5	1/5

### **Training and Resources**

**Seeds of Success Website:** [www.nps.gov/plants/sos](http://www.nps.gov/plants/sos)

**Seeds of Success Listserv:** Registrations are available on the SOS website

**Training Course:** “Seed Collection for Restoration and Conservation” is offered annually. Please contact the National Coordinating Office for more information.

**Collectors Call:** On the first Tuesday of every month, collectors are invited to participate in the Collectors’ Call, a conference call for all SOS Partners. This is a forum for discussion with other collectors and raising issues and questions.

#### *Collectors’ Call Times*

11 am – EST	9 am – MST
10 am – CST	8 am – PST
7 am – AKST	

## **Contacts**

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