

Guidelines for Permitting & Certification of Wildland Collected Seed

Large-scale disturbance of ecosystems, whether human-caused or the result of natural events (e.g., fire, floods, etc.), frequently requires mitigation to restore, revegetate, improve, or stabilize natural communities. Demand for the resources needed to complete corrective and improvement activities increases with increase in human activity on these communities. Seeds needed to accomplish these corrective measures are a basic resource often limited in quantity and quality. To meet present and future demands, sufficient quantities of seed from numerous species must be available at reasonable cost. Though many species may be suited for field cultivation, seeds of a majority of species will continue to be collected from wildland populations.

Much of these wildlands are public and permits are required for harvesting. Considerable inconsistency exists among and within each Land Management Agency (LMA) on how and when permits are issued. This is due, in part, to incomplete knowledge by LMA personnel of the market dynamics peculiar to this industry resulting in difficulty in assessing appropriate fees. Ultimately, inconsistency creates frustration, resulting in low levels of compliance, a phenomenon experienced with other specialty products collected from public lands.

One mission of LMA's is to promote development of rural economies, as long as this can be done without jeopardizing resources. Responsible seed collecting is compatible with other uses (e.g., livestock grazing, recreation, etc.) and has little or no long-term effect on stand health. Requirements placed on collectors and brokers should not be burdensome. Clearly, by collecting and marketing seeds from hundreds of species, this industry provides a resource that cannot be obtained by any other reasonable means.

Many species are represented by numerous genetically distinct races or ecotypes. They reflect differential adaptation to variation in soils, climates, disturbance regimes, etc. across the species range of distribution. Success in using a particular species is often dependent on the use of seed from an adapted race. Although races of a few species have had considerable testing, huge gaps remain in our understanding of race adaptability for most species. Consequently, decisions about which race to seed on a particular site should generally be based on an evaluation of the physical and biological environment of the collection and seeding sites. Unfortunately, seed users have found accurate collection site information to be largely unavailable.

In response to these concerns the Utah Interagency Plant Materials Committee organized and sponsored a workshop in March 1993. Representatives from LMA's, the State Seed Certifying Agency (SCA), State seed testing laboratory, private industry, and research community were invited to spend 2 days identifying problems and developing solutions. Recommendations have been modified after additional review by various parties connected to the industry. The following guidelines are the product of this process. Implementation of these guidelines by LMA's, collectors, dealers, and SCA's would do much to correct the problems associated with the collection and use of seed from wildland populations.

I. PERMITS FOR SEED HARVEST ON PUBLIC LANDS

Seed collectors are most likely to comply with permit requirements when consideration is given to their concerns. Because collectors often travel long distances for seed (and permits), they need flexibility in purchasing permits. Circumstances sometimes allow and/or require a long lead time for permit purchase, while other times this is not possible. In either case, permits must be available during all office hours and on a daily basis. Permits should preferably be valid on large geographic areas, such as BLM or Forest Service districts. However, smaller resource management areas may be specified. Consistency within LMA's is critical. These guidelines address the needs of both LMA's and collectors concerning requirements for seed collection permits.

LMA responsibilities

1. Complete and have on file all required Environmental Assessments required by law prior to the harvest season. Many species can be covered in resource management plans and not require a specific EA.
2. Set fee schedule prior to season. Fees should be incremental according to species and based on a given quantity of bulk seed in field condition. Collectors must be informed that there are no refunds on the permit fee for collecting fewer pounds than expected. However, if more seed is available than expected, the LMA may increase permit pounds allowed upon notification and payment of additional fees (unless LMA target poundage limits have been reached for a given resource area).
3. Issue permits and collect fees at district offices based on anticipated harvest for each species in resource area. Multiple species could be listed on a single permit. Permits should specify the LMA district office issuing the permit, permittee(s), contact address and phone number, permit number, permitted season (generally the calendar year unless otherwise specified), species, collection area, and estimated quantities to be harvested. Permits must be signed by permittee(s) indicating that information concerning restrictions, exclusions, and other guidelines for seed harvest have been received.
4. Provide additional printed information to collectors at the time of application, such as:
 - a. exclusions (geographic areas, species, dates, collection methods, etc.)
Note: Although in some circumstances motorized collection should be excluded, mechanical or vehicle-aided collection is sometimes the preferred method.
 - b. vehicle/access restrictions.
 - c. a warning of the consequences of harvesting without a valid permit or outside the exclusions or restrictions of the permit. Penalties could include loss of collected seed and/or picking privileges.
 - d. cautions concerning accidental inclusion of noxious weed seed and premature harvest.

Collector responsibilities

1. Purchase and sign permits for each species to be harvested in the district before starting collection. The fee paid for each species at the time of purchase is based on the collector's estimate of expected harvest.
2. Abide by all exclusions and restrictions provided when the permit is purchased.
3. When potential harvest exceeds the estimate, notify LMA for permit adjustment and additional payment of fees.

Other recommendations

1. Fee schedules should be uniform within each LMA. A committee or board could be established to assist LMA's in establishing master species lists and standard fee schedules. This board should have representation from the LMA, seed industry, and research community. Due to narrow profit margins, the costs associated with obtaining permits will usually be passed on to users, which is frequently the same LMA. For this reason, a fee of approximately 5% of field value (first sale) of the seed based on a 5-year average is recommended.
2. Seed collection permits do not grant exclusive rights to a particular stand or population of plants. Such rights can only be obtained through a contract/bid process.
3. Permit forms and procedures must be standardized within each LMA.

II. CONTRACTS AND BIDS

A LMA may decide to offer for sale seed from a specific stand or geographic region. These areas must be listed as excluded prior to issuing general collection permits, thus granting exclusive collection rights to the individual(s) holding the contract. Exclusions and restrictions must be clearly stated on the invitation to bid.

LMA responsibilities

1. Estimate potential yield and value of the seed crop.
2. Complete appropriate Environmental Assessments.
3. Prepare invitations to bid, with all pertinent terms, restrictions, and exclusions defined.
4. As conditions permit, conduct on-site spot checks during collection to assure compliance with contract/bid specifications and exclusion of non-authorized collectors. By signing contract/bid sheets during these checks, LMA representatives could provide evidence for seed certification.

III. SEED CERTIFICATION

The Association of Official Seed Certifying Agencies (AOSCA) has published "Pre-Variety Germplasm Certification Standards" for the certification of germplasms which have not reached varietal status, and "Woody Plants and Forbs Certification Standards" and "Grass Certification Standards" for certification of seed of germplasms which have been released as a variety. These standards apply to either wildland collected or field-produced seed, and offer a reliable way for the seed industry to offer seed of races or ecotypes to the buyer with genetic identity maintained along with accurate collection site information.

According to these certification standards, a race or ecotype of a native or naturalized species may be categorized into one of four germplasm types:

- (a) Source Identified (yellow tag) -- Comparisons with other germplasm collections, accessions, or ecotypes of the same species not known.
- (b) Selected (green tag) -- Shows promise of superior and/or identifiable traits as contrasted with other germplasm accessions, ecotypes, or variety/cultivars of the species. Selection criteria and supporting comparative data is required.
- (c) Tested (blue tag) -- Requires progeny testing to prove that traits of interest are heritable in succeeding generations. Testing procedures (number of sites, generations required, etc.) are outlined for each species by certifying agencies.
- (d) Variety (Foundation {white tag}, Registered {purple tag}, and Certified {blue tag} classes) -- Applicable to a Tested germplasm which, in the estimation of the developer, has sufficient marketplace potential to warrant release as a variety in compliance with Federal and State seed laws.

A. Seed Certifying Agency responsibilities:

1. Develop and print a Certified Seed Site Identification Log sheet for use by seed collectors. These log sheets will be available from seed brokers (dealers and conditioners) and from the SCA and other agencies. This log will serve as a way to organize information such as:
 - a. Collectors name, address, and telephone number
 - b. Permit number, contract number, private land designation, etc.
 - c. Species and common name.
 - d. Location (State, County and elevation). It is strongly recommended additional information such as soil type, aspect, and associated species be given as this information would be extremely useful to the end user.
 - e. Date(s) collected.

- f. Amount collected.
 - g. Lot designation (must be indicated on bag or container also)
 - h. Signature of collector that the information is correct.
 - i. Signature of seed broker that to his knowledge information is correct.
 - 2. Evaluate completed log sheets, seed broker's records, and related documents in determining certification eligibility of seed lot. Conduct thorough investigations on at least 5% of eligible seed lots, including verification of paperwork and prior and/or retroactive field inspection of collection sites to verify that stands are capable of producing the amount of seed indicated. Evidence of falsified logs or documents may result in loss of certification privileges.
 - 3. Attach an official Source Identified, Selected, Tested, or variety tag with appropriate site and germplasm information to individual bags of eligible seed lots.
- B. Collectors responsibilities
- 1. Obtain, as applicable, a permit or contract/bid (for public lands) or written permission (for private lands) prior to collection.
 - 2. Keep a Certified Seed Site Identification Log for seed for which certification tags are desired.
 - 3. Upon first sale, the collector will present to the seed broker copies of applicable LMA permits or private land permission documents, and signed log sheets pertinent to the seed being sold.
- C. Seed Broker Responsibilities
- 1. Inspect information provided on permits and log sheets and sign log sheets to attest that the information is correct to the best of his or her knowledge.
 - 2. After cleaning and conditioning, have seed sampled, tested and labeled according to all SCA, State and Federal regulations.
 - 3. Make available to SCA representative all records on certified seed lots.
 - 4. Obtain permission from SCA before blending lots of certified seed.
 - 5. Pay fees for certification. Other fees such as mileage and/or hourly charges may be assessed in situations where additional service is required.

Guidelines compiled by:

Stanley Kitchen
USFS Shrub Lab
Provo, UT 84601
(435)377-5717

Stanford Young
UCIA, USU
Logan, UT 84322-4855
(435)797-2082
E-mail: sayoung@mendel.usu.edu

SEED CERTIFICATION AGENCY (SCA)

**Certified Seed
PRE-COLLECTION APPLICATION
for Wildland Collected Seed**

Application/Certification # _____ Application Fee⁶ _____ Assigned by SCA

Applicant¹ _____ Phone _____ Fax _____

Address _____ Cell _____ E-mail _____

Species Name _____ Common Name _____

Site Ownership: Public _____ Agency name and office to issue permit/contract/permission

Private _____ Landowner or agent name(s) _____

Site Location² State _____ County _____ Elevation _____

Latitude _____ GPS³ _____

Site Size/Description⁴ _____

Material to be Collected⁵ _____ Collection Dates⁶ Start _____ End _____

Collection Personnel⁷

Name of Crew Leader	Address	Phone/Cell

¹ Applicant may be the collector, seed broker/conditioner, or other party. Membership in SCA may be included with this application. Information on this form is confidential and is for SCA use only.

² In general, complete a separate application for each specific species (or recognized subspecies) site location. For species that occur in harvestable stands over broad non-contiguous areas, an application must be filed for at least each species/county area.

³ GPS coordinates preferred if exact site of stand known before harvest.

⁴ List approximate number of acres or square miles if stand is mostly contiguous, or describe (or outline on topographic map) geographic area within county to be collected from (e.g. stream drainage, specific valley, mountain range, etc.). List MLRA zone, or other defined ecological area as applicable.

⁵ For example, seed, seed stalks or heads, cuttings or other vegetative part, cones, fruit, etc.

⁶ Application must be completed and FAXed to SCA Representative (xxx-xxx-xxxx) and then immediately mailed with application fee to SCA address preferably one month or more but at least one day before harvest (exceptions on a case by case basis and with time and mileage fees assessed). This initiates the wildland collected seed certification process and contact with collector groups. The SCA will then verify collection site harvest by spot checks before, during, or post harvest utilizing detailed maps, GPS coordinates, and/or accompaniment with collector(s) to the site.

⁷ List known collector groups that will be harvesting for you on this site (list additional groups and information on back of white copy and include in FAX). Maps, GPS readings, and other exact site location information relative to an individual collector are regarded as confidential.

I hereby apply for certification of wildland collected plant material from the above described site. I agree to abide by all of the rules and regulations governing certification according to the above named certification agency under the auspices of AOSCA, the Association of Official Seed Certifying Agencies.

Applicant _____ Date _____

FAX to (xxx) xxx-xxxx, then mail original with fee to SCA
PHOTOCOPY for Applicant Records

SEED CERTIFICATION AGENCY (SCA)	Certified Seed SITE IDENTIFICATION LOG, PART 1 for Wildland Collected Material Intended for Direct Sale and Revegetation Outplanting
---------------------------------	---

Inspection Fee¹ _____ Field Lot #² _____ Appl/Cert. # _____ Assigned by SCA

Collector³ _____ Address _____

Phone/Cell _____ Permit/Contract/Permission⁴ Public Private

Species Name _____ Common Name _____

Germplasm ID⁵ _____ Material Collected _____ Amount _____
e.g., seed, cuttings, etc. Bulk lb or volume

Species as Collected Indigenous to: Site County State Nonindigenous Unknown

Germplasm Category Source Identified Selected Tested Variety

Date(s) Collected _____ State _____ County _____ Elevation _____

Site Size/GPS⁶ _____

Site Description/Map⁶ _____

I attest that all above information is correct _____ Date _____

Signature of Collector

Uncleaned Sample Taken By⁷ _____ Plant Specimen Provided by⁸ _____

Site Inspection Completed _____ Date _____

Signature of SCA Representative

Conditioner Lot # _____ Date(s) Conditioned _____ Clean Seed Lb _____

I attest to the best of my knowledge, all above information is correct.

_____ Date _____

Signature of Seed Broker/Conditioner

Seed Analysis? _____ # Tags _____ Approved⁹ _____
If Yes, List Seed Sampler and Lab _____ Date, Initials of SCA Rep. _____

¹ Time/mileage charges may apply where special verification procedures are requested by a seed buyer or are judged necessary by the SCA.

² The collector or seed broker/conditioner must a) label all bags or containers with a field lot #, b) store so each field lot can be easily inspected, and c) blend field lots only by permission of SCA rep.

³ Major collector of material from this site. This form may be filled out by the major collector or by the Broker/Conditioner receiving the material, but in any case information must be correlated with the appropriate Pre-Collection form and applicant. List additional collector groups on a Site Inspection Log, Part 1 Addendum. (\$xx fee for each group).

⁴ Attach copy(s) of permits, contracts, or permission forms or letters. Field bulk pounds collected on public lands not covered by applicable documents will not be eligible for tagging by the SCA.

⁵ Variety name if applicable, or enter a germplasm identification (site name or number) if one is given by the collector or public or private germplasm developer (e.g. Gold Strike variety or Nugget Gulch germplasm bluebunch wheatgrass).

⁶ List specific sizes/description for areas actually collected in relation to approximation given on Pre-Collection Application. For example, list GPS reading from the approximate center of contiguous stands listed in acres, a minimum of four GPS readings representing the perimeter of contiguous stands listed in square miles, and/or attach a topographic map with a combination of GPS reading(s) and lines drawn that sufficiently locate contiguous or non-contiguous stands over applicable geographic areas within a county. This information is confidential.

⁷ An uncleaned sample of seed collected must be filed with this log to represent each field lot. Specify whether taken by the collector, seed broker/conditioner, or SCA Rep. A manila envelope (at least 5" x 9") or plastic bag (if material is dry) containing the sample must be marked with the field lot #.

⁸ A pressed, dried plant specimen must be filed with this log to aid in identification of many species, especially forbs and some grasses. Contact the certification agency for a list of species requiring a plant specimen to complete this form. Specify whether specimen is taken by the collector or SCA Rep.; a fee surcharge may apply if specimen is provided by SCA.

⁹ Certification tags (Source Identified, Selected, or Tested) for wildland collected seed are issued on the basis of source and genetic identity and purity only. Purity and viability analysis and labeling is the sole responsibility of the vendor unless specific requests or contracts require sampling or mechanical standards oversight by the SCA.

Original to Certification Agency • **Photocopy** for Seed Broker/Conditioner/Collector Records

SEED CERTIFICATION AGENCY (SCA)

Certified Seed
SITE IDENTIFICATION LOG, PART 2
for Wildland Collected Material
Utilized for G₀ Stock Seed¹

Germplasm ID _____ Inspection Fee² _____ Appl/Cert # _____Applicant³ _____ Field Lot # _____

Address _____ Phone/Cell _____

Species Name _____ Common Name _____

Plant Specimen(s) Provided By⁴ _____ Collector, Applicant, or Cert. Agency Rep.Site Photographs Provided By⁵ _____ Collector, Applicant, or Cert. Agency Rep.Species Distribution on Site⁶ _____ Soil Texture/Type⁷ _____

Percent of Species Population Collected From _____ % Were Specific Plants Intentionally Selected to Collect From? _____ If Yes, Describe the Plant Characteristics Selected for _____

Site Physical Characteristics⁸ _____Associated Plant Species _____
List natives and exoticsGenerations Permitted Beyond G₀⁹ _____ Length of Stand⁹ _____

¹ Complete this form in addition to Site Identification Log, Part 1, for wildland collected seed or other propagating material that is to be utilized for a) establishing Generation 1 production fields or orchards or b) strictly controlled ecosystem restoration projects. The purpose of this form is to provide further information regarding distribution of species, selectiveness in collection, and physical characteristics of site and associated species.

² If all information is provided at the time of original collection site inspection, then the minimum fee applies. Otherwise, time/mileage fees will be assessed (or minimum) if additional visit to site by SCA is required.

³ Applicant is person desiring to utilize this wildland collected accession as stock seed (or other propagative material) for field increase, and is not necessarily the same person listed as the collector and/or seed broker/conditioner listed on the Site ID Log, Part 1.

⁴ All species must have a pressed, dried plant specimen (more than one if species population is heterogeneous) submitted when material is to be used for stock seed and/or for user specified restoration purposes. A fee surcharge may apply if specimen(s) is provided by SCA Rep.

⁵ Photo documentation must include a close-up shot(s) where individual plants of species are clearly defined, as well as a more distant shot(s) that shows details of the plant community and site geography. Attach photos or contact Certification Agency to arrange transmittal of digitized images. A fee surcharge may apply if photo is provided by SCA Rep.

⁶ Indicate how species collected is distributed on the site (e.g. patchy, uniform, abundant, sparse, etc.).

⁷ Indicate the soil texture/type the species on the site is growing on; describe in terms (or combination of terms) of coarse (sand, gravel), medium (loam), fine (clay), or organic (decayed plant material).

⁸ Indicate whether site appears natural, or describe any recent disturbance (e.g., fire, overgrazing, road cut, clear cut, chaining, etc.); describe local landscape features (e.g., rocky outcropping, pond, road or fenceline, slope, aspect, etc.) and ecosystem vegetation type (e.g., wetland, upland meadow, salt desert, coniferous forest, sub-alpine, etc.).

⁹ This is normally a decision made jointly by the applicant, certification authority, and plant scientists familiar with the species ontogeny and reproductive type. For marketing purposes, the generation listed on the tag may be downgraded such that the seed would not be eligible for stock seed purposes. The tag may list both the generation of the tagged material and the number of generations permitted, e.g. G2/G4.

I attest that all the above information is correct and hereby apply to utilize this G₀ wildland collected seed for certified field production.

Applicant _____ Date _____

Original Copy to SCA • Photocopy for Applicant Records