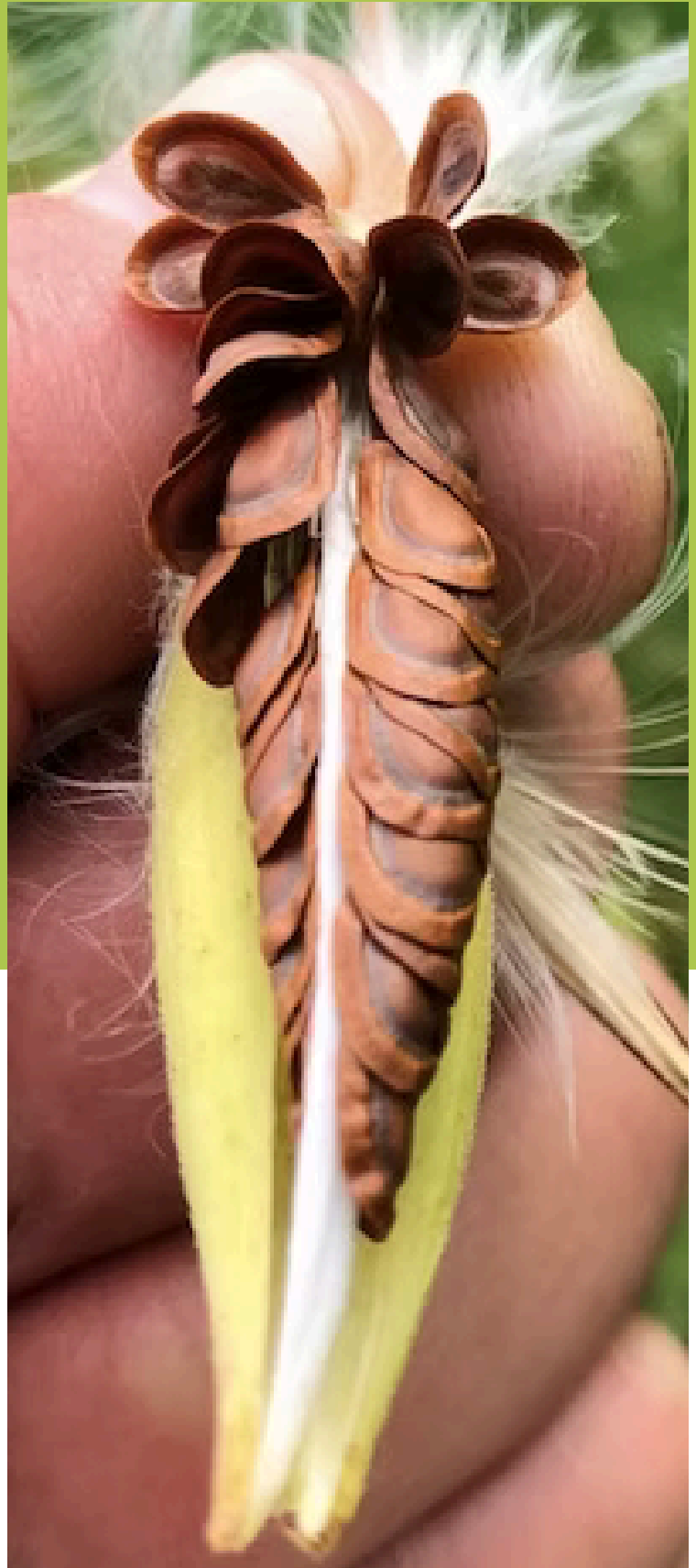


NORTHEAST SEED NETWORK'S WILD SEED COLLECTING BEST PRACTICES

KEY MESSAGES AND
PROTOCOLS FOR
LAND TRUSTS



May, 2026

TABLE OF CONTENTS

INTRODUCTION01

SECTION 1: DEVELOPING SEED COLLECTING POLICIES
AND PARTNERSHIPS02

1.1 Conservation First: Enhancing the Land Trust Mission02-04
1.2 Legal and Ethical Access for Outside Collectors05
1.3 Genetic Integrity and Site Health05-06

SECTION 2: PROTOCOLS FOCUS07

2.1 Develop a Collections Plan07-08
2.2 Pre-Collection Planning and Approvals.....09
2.3 Collection Standards and Techniques10-12
2.4 Post-Collection Documentation and Accession.....13

ACKNOWLEDGEMENTS.....14

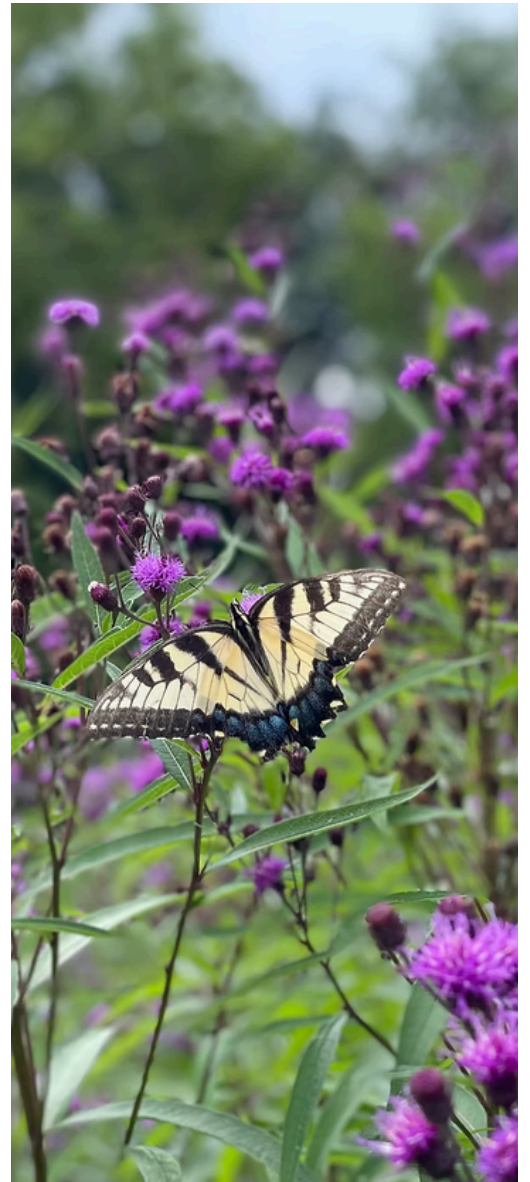
APPENDIX15



Introduction

Land trust properties

serve as important seed refuges, and it is important to protect the health and vigor of native plant populations where they exist. Vigorous plant populations can serve as seed sources to support ecological restoration, agroforestry, and other landscape restoration efforts. As demand for locally sourced native seed has grown, land trusts have fielded inquiries, both from within and outside the organization, about collecting seed on their preserves. This document, compiled by the Northeast Seed Network (NSN), serves as an informational resource that provides policy considerations and boilerplate language to land trusts that are developing seed collecting policies and/or forging agreements with collectors.



SECTION 1: Developing Seed Collecting Policies and Partnerships

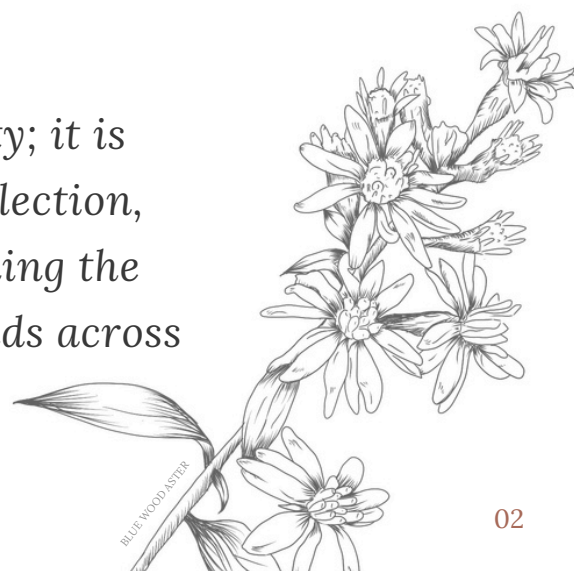
Defining the Ethical Contract:

Protecting and supporting wild plant populations is an essential priority. Therefore, the Northeast Seed Network recommends developing seed collecting policies before any collecting takes place and working only with qualified, trained seed collectors who have a mutual commitment to the stewardship and ecological integrity of the land. Land Trusts can also use the NSN's guidelines to help staff build their own collection programs in-house. This section outlines the framework for developing a policy that conveys both the protective measures and the level of trust afforded to collectors.

1.1 | CONSERVATION FIRST: ENHANCING THE LAND TRUST MISSION

The Core Message:

Wild seed collection is not an extractive activity; it is Strategic Genetic Stewardship. By allowing collection, Land Trusts act as "biological lifeboats," providing the source material necessary to heal degraded lands across a shared ecoregion.



A. Trust Building

STRONG PHRASING FOR POSITIONING AND BOARD SUPPORT:

- "By partnering with a wild seed collector or developing an in-house Seed Collection program, the Land Trust activates its properties as genetic reservoirs, ensuring that the rare and resilient botanical legacy of this site informs regional restoration."
- "Land Trust properties are viewed as Founder Sites—primary sources of the hyper-local genetics needed to build climate-resilient landscapes throughout our ecoregion."
- "Land trusts have been active in minimizing and eradicating invasive species throughout their preserves. The next step in land management is to restore habitat using native plant material facilitated by the work of a wild seed collector or a wild seed collection program."
- "By partnering with a wild seed collector and/or training existing staff, Land Trusts can transition from the defensive maintenance of invasive species to proactive habitat restoration, using the unique botanical heritage of their lands to build functioning ecological corridors."
- "Working with seed collectors, who are field botanists, can expand a floristic inventory within the Land Trust's properties."

B. Clarity on Intent: Defining the "Why"

TO MANAGE EXPECTATIONS, USE CLEAR LANGUAGE TO DEFINE WHERE THESE SEEDS GO AND WHY THEIR "LOCALNESS" MATTERS.

- **Protocol Language:** All seed collections are made to strengthen or restore local plant habitats. Collections are managed according to provenance-based protocols. This guarantees that the resulting plant materials remain within their evolutionary context, supporting the specific pollinators and wildlife of the specific Ecoregions they came from.
- **Restoration Intent:** Collections can be designated for specific in-situ projects throughout the land trust properties and/or community-based projects. Collections can also be used to create a regional supply of genetically appropriate plant material through seed increase plot production. Seed increase can help make locally sourced seed species available to landscape restoration practitioners and gardeners, ultimately reducing the need for wild collections.

C. The Guarantee:

Ethical & Non-Exploitive Safeguards

ETHICAL SEED COLLECTION WILL NEVER EXPLOIT THE RESOURCES OF A LAND TRUST. USE THE FOLLOWING LANGUAGE TO PROVIDE A FIRM ETHICAL GUARANTEE:

The Non-Exploitative Guarantee: "Collectors or Permit Holder explicitly guarantee that all germplasm harvested from [Land Trust Name] properties is intended solely for ecological restoration, scientific research, and regional seed increase. These genetics will not be utilized for the development of patentable cultivars, non-native applications, or profit-driven, trademarked varieties that fall outside the mission of regional biodiversity support."



1.2 | LEGAL AND ETHICAL ACCESS FOR OUTSIDE COLLECTORS

A. Reinforcing the "Privilege of Access"

THIS LANGUAGE ESTABLISHES THE GRAVITY OF THE WORK WITHOUT BEING DEFENSIVE.

The Framing: "Permission to collect seed is an act of trust and a professional privilege granted by the Land Trust. Wild seed collectors serve as stewardship guests, acknowledging that collecting seed on the land is secondary to the Trust's primary conservation and public-access mandates."

B. Non-Compliance and Termination

TRANSPARENCY IS KEY HERE. BY STATING THIS CLEARLY PROTECTS LAND TRUST PROPERTY AND EMPHASISES THE VALUE OF ETHICAL COLLECTING.

The Protocol: "Adherence to the NSN Standards and Protocols or other mutually agreed upon collecting standards is the condition of site access. Failure to follow agreed-upon spatial boundaries, harvest limits, or reporting requirements will result in the immediate suspension of the seed collecting program or collection privileges for the individual and a formal review of the seed collecting project partnership status to protect the ecological integrity of the preserve."

A. The Safe Seed Fraction

The Pledge:

"All seed collecting will follow collection protocols that respect population size, species life cycle, and natural seed production.

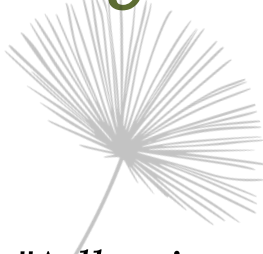
This ensures that a seed bank remains healthy to feed local wildlife and allows the population to persist in the landscape."



B. Long-Term Benefit: Tying to the Mission

The Language:

"Adhering to conservative harvest limits is the ultimate expression of the Land Trust mission. By leaving the vast majority of seed in situ, we ensure that the naturally occurring population remains vigorous and genetically diverse, allowing the Land Trust to fulfill its promise of permanent protection while simultaneously fueling regional restoration."



SECTION 2: PROTOCOLS FOCUS

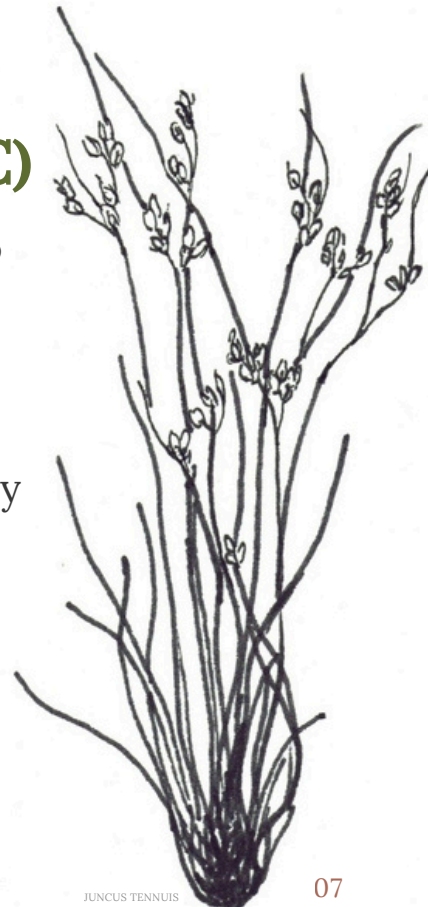
ADAPTING STANDARDS FOR REGIONAL BIOSECURITY & PLANNING

2.1 | Develop a Collection Plan

A successful seed-collecting project begins with a conversation between the collector and Stewardship Director. Wild seed collectors operate as guests of the stewardship team, aligning their collections with the active management goals of the Land Trust and/ or preserve manager. Collaborating to develop a collection plan helps ensure clear communication between the collector(s) and the Stewardship Director and ensures that the land trust's conservation goals are honored.

A. Establishing the Point of Contact (POC)

- **Oversite**: Land trusts should designate one person to coordinate and document all wild seed collecting to ensure there is no duplication or overcollection.
- **Protocol**: Collectors must identify and engage directly with the Stewardship Director or Land Manager overseeing seed collecting.
- **Spell out any notifications that need to be made in advance of collections.**



B. Develop a Target Species List

- List target species and estimated collecting times and methods.
- Discuss in advance how requested changes to the list will be handled

C. Identifying Site Sensitivities

COLLECTORS AND LAND MANAGERS MUST THINK BEYOND THE TARGET PLANT SPECIES TO ENSURE SITE HEALTH:

1. **Avian Cycles:** *"Are there active ground-nesting bird habitats or seasonal closures to avoid?"*
2. **Botanical Rarities:** *"Are there established monitoring sites for Species of Special Concern (rare/threatened) that should be avoided?"*
3. **Site Stressors:** *"Are there areas currently battling specific pathogens (e.g., Beech Leaf Disease, Hemlock Woolly Adelgid) or sensitive soils (bogs/fens) where foot traffic must be restricted?"*



Jesse Hubbard of Highstead collecting boneset at the Aspetuck Land Trust Randall's Farm Nature Preserve. Geordie Elkins

2.2 | Pre-Collection Planning and Approvals

A. Distinguishing Wild vs. Managed Populations

To protect the genetic integrity of the "Wild Ecotype" designation, wild seed collectors must ensure they are not collecting from previously planted restoration sites.

THE REQUIREMENT:

Before approval, Land Trust staff must verify if any sections within the site have undergone active restoration within the last 50 years. If the site was seeded or planted with nursery-sourced material—even if the species is native—it must be avoided to prevent the accidental collection of seeds from non-local or 'cultivar' sources.

COLLECTOR NEEDS:

Maps and/or species lists of restoration sites can be provided to collectors to help them avoid certain areas or species within the preserve.

B. Granular Collection Plan Details

Because Land Trust properties are sometimes nestled within residential, sensitive or restricted areas, outline any specifics necessary to respect the area:

LOGISTICAL FOOTPRINT:

PROPOSED COLLECTION AREAS:

Specific mapped path of entry and exit can be provided to minimize disturbing neighbors or programmatic activities, soil compaction, and avoid sensitive habitat buffers and areas that prohibit collecting by deed or management restriction.

DESIGNATED PARKING:

Specific coordinates or parking areas on a map can be provided for vehicles to avoid blocking emergency access or damaging roadside vegetation.

EQUIPMENT INVENTORY:

A full list of tools should be provided (e.g., telescopic pruners, hand pruners, tarps) to ensure no unauthorized heavy machinery is used.

COLLECTOR IDENTIFICATION AND DOCUMENTATION:

>>> Collectors should always carry permits

>>> Land Trusts and collectors will agree on how to communicate seed collecting activities to the general public

2.3 | Collection Standards and Techniques

A. The Gold Standard:

Leveraging the Seeds of Success (SOS) Framework

The Professional Benchmark: To ensure a high level of genetic diversity and project success, the Northeast Seed Network recommends collecting protocols derived from the Bureau of Land Management's Seeds of Success (SOS) program. This national framework is widely considered the "gold standard" for native seed collection in the United States.

1. ALIGNING WITH NATIONAL RIGOR

By following the recommended protocols, collectors ensure that every collection is:

- **Genetically Representative:** Sampling from a minimum of 50 individuals (where population size allows) across the entire site to capture the broadest possible genetic sample.
- **Scientifically Documented:** Utilizing standardized field forms and photos or herbarium vouchering to confirm species identification and site history.
- **Ecologically Conservative:** Prioritizing the long-term health of the source population above the quantity of the harvest.

2. ADAPTING FOR THE NORTHEAST CONTEXT

While the SOS program was designed for the expansive public lands of the American West, the NSN adapts these standards accordingly to meet the unique requirements of the Northeast's fragmented landscapes and Land Trust missions. Please reference the NSN **Guidelines for Seed Collection and Managing Sites**. Our regional adaptations include:

- **Small-Population Protocols:** In the West, SOS often targets populations of 10,000+ individuals. In the Northeast, we adapt these techniques for smaller, high-value "remnant" populations found on Land Trust preserves, ensuring they are not over-harvested while still capturing their unique local genetics.

● **Humidity & Moisture Management:** Unlike the arid West, Northeast seeds are often harvested in high humidity. Post-collection handling protocols are used to prevent mold and ensure seed longevity.

● **Biosecurity for Fragmented Land:** Because preserves are often close to residential or agricultural zones, collectors include mandatory sanitization steps to prevent the spread of regional pests (like Jumping Worms or Beech Leaf Disease) that are not present in the original SOS guidelines.

3. ASSURANCE TO THE LAND TRUST

"By adopting and adapting the SOS framework, the wild seed collector provides [Land Trust Name] with the assurance that all work performed on your properties meets the highest national standards for botanical research and restoration ecology. We bring a level of professional rigor that protects your land while contributing to a robust, climate-resilient regional seed supply."



Volunteers seed cleaning wild collections for the Kent Land Trust Meadow restoration project. Melissa Cherniske

B. Methods for Estimating the Safe Seed Fraction Harvest

To protect plant populations, we generally recommend leaving 80-90% of the seed for the ecosystem (common Safe Seed Fraction harvest of 10-20%); however, the actual amount may be adjusted based on the sensitivity of the species and the population size.

Collectors should be trained in these two accepted methods:

1. **Systematic Sampling Method:** Estimate the total number of plants in the population and collect seed from every 5th-10th plant that is found.
2. **The Ratio Count:** For species with distinct seed heads (e.g., *Eutrochium* or *Symphyotrichum*), count the heads on 10 random plants. If the average is 20 heads, the collector is permitted to harvest only 2-4 heads per plant.

Land Trusts may decide to collect more seed than the standard Safe Seed Fraction for specific landscape restoration purposes. (For example, if seed is being collected and grown to be planted back into the collections site.)



Ecotypic wildflower seedling trays grown by the Seed-to-Seed program led by Dan Brubaker at Greenwich Land Trust in Connecticut.

C. Biosecurity Protocol

Collectors can inadvertently act as "vectors" for invasive pests and pathogens. The following steps are mandatory for all wild seed collectors:

1. **The "Clean Start" Rule:** All boots, clothing, and equipment must be free of visible soil and debris before entering the property.
2. **Minimize Material Collected:** Taking the least amount of extra plant material with a seed collection will minimize the bacteria, fungus or insects that may be present on leaves and stems.
3. **Regional Pest Prevention:** Collectors must avoid moving any soil between sites. If a site is known to have Invasive Jumping Worms (*Amyntas* spp.) or Beech Leaf Disease (BLD), the property must be observed as a "quarantine zone," and all gear should be deep-cleaned before visiting another preserve.

2.4 | Post-Collection Documentation and Accession

A. Collection Data

Transparency and documentation are essential. Collectors need to submit collections reports to the Point of Contact at the end of the project or the collection season.

Information should include:

- The NSN Collection Form: A standardized CSV or Excel file detailing the species, date, and estimated quantity.
- Geo-referenced Collection Point: At least one GPS point within the population where the collection was made.
- Site Observations: Notes on plant communities and any newly discovered species of interest, pollinator activity, herbivory levels, or new invasive "early detections" noticed during the collection.
- Photos and/or Herbarium Specimens: Visual or physical documentation of the plant species that was collected to verify proper identification.

B. Use of Material

Use of material will vary from project to project. Verbiage should be altered to reflect the current mission and capacity of a Land Trust.

- **The Expectation (for outside collectors):** "While the wild seed collector manages the cleaning and storage of the seed, the Land Trust retains First Right of Refusal for a portion of the cleaned seed (or resulting germinates) for use in on-site restoration projects. This ensures the Land Trust directly benefits from the genetic preservation of their own land."
- **The Safeguard:** Donating a portion of any seed collection that is large enough to long-term storage can help safeguard the unique genetic signature of any Land Trust's resources. Contact your regional seedbank to see if they can work with you. In the Northeast and Mid-Atlantic, long-term storage can be facilitated through the Northeast Seed Network.



Volunteers planting contract-grown ecotypic plugs grown from seed collected within the Kent Land Trust. Melissa Cherniske

Thank you to the Land Trust Alliance for their generous support to make this work possible! We are also deeply grateful to the Northeast Seed Network's Standards and Protocol Committee members.



Lead Authors:
Geordie Elkins
Heather Liljengren

Layout & Design:
Sefra Alexandra



Contributors:

Eve Allen, Dina Brewster, Lauren Shew, Matthew Garrambone, Seth August, Lindsey Feinberg, Emily Baisden, Brooke Fleischman, Erin Camire, Brigitte Wierzbicki, Kate Rakosky, Jay Richardson Grebe, Ashley Senegal, Jessica Raspitha, Dan Brubaker, Mary Ellen Lemay, Lizzie Hunt, Alliy Gundlach-Massimino, Sue Theriault, John Price, Melissa Cullina, Linda Rohleder, PhD

**Northeast Seed Collective farmers/ artists for the botanical illustrations*



**ECOLOGICAL
HEALTH
NETWORK**



Northeast Seed Collective



Wild Seed Project



Appendix: Sample Wild Seed Collection Plan



Sample Wild Seed Collection Plan

Project Name: [Insert Project Name, e.g., 2026 Ecoregion 58 Meadow Restoration Project]

Land Trust / Preserve: [Insert Name of Property]

Date of Submission: [Insert Date]

1. Primary Points of Contact (POC)

- **Land Trust Stewardship Director/ Land Manager:** [Name / Email / Phone]
- **Lead Collector/ Organization:** [Name/ Email/ Phone]
- **Permit/ Access Dates:**[Start Date] to [End Date]

2. Project Intent & Use of Material

- **Purpose of Collection:** (e.g., Regional seed increase, on-site restoration, scientific research)
- **Restoration Intent:** [] In-situ (on this property or within the Land Trust holdings)
[] Ex-situ (regional supply or research)
- **The Non-Exploitive Guarantee:** *All germplasm harvested is intended solely for ecological restoration, research, and regional seed increase. These genetics will **not** be used for patentable cultivars or profit-driven mass marketing.*

3. Target Species List: Table or Linked Spreadsheet

**determine how requested changes to the list will be handled (i.e. opportunistic collections)*

SPECIES NAME (Scientific/ Common) <i>Example: Eutrochium</i>	COLLECTION RANGE	COLLECTION METHOD (Hand/Tarp/Pruner)
<i>maculatum</i> / Spotted joe-pye weed	Sept - Oct	Hand stripped into breathable bags
<i>Rubus flagellaris</i> / Northern dewberry	July	Hand picked into ziplock bag

4. Site Sensitivities & Logistics

- **Restoration History:** Has this site been seeded/ planted in the last 50 years?
☐ Yes | ☐ No
 - *If yes, attach map and/or species list of restoration zones to ensure only wild ecotypes are collected.*

-
- **Avian & Wildlife Cycles:** Identify any ground-nesting bird habitats or seasonal closures to avoid:
-
- **Botanical Rarities:** List any Species of Special Concern or monitoring plots to be avoided:
-
- **Site Stressors:** Identify areas with sensitive soils (bogs/fens) or known pathogens (Beech Leaf Disease, etc.):
-
- **Advance Collection Notification:** Identify if declaration of onsite activity is needed before a collection day
-
- **Logistical Footprint:**
 - **Proposed Travel Route:** (Attach trail map or describe entry/exit path)
 - **Designated Parking:** [Insert GPS Coordinates or Description]
 - **Equipment Inventory:** [e.g., Telescopic pruners, tarps, GPS units]

5. Collection Standards (Northeast Seed Network/SOS)

The Collector agrees to the following "Gold Standards":

- **Genetic Representation:** Target populations with >50 individuals.
- **Safe Seed Fraction:** No more than **10-20%** of the available seed will be harvested.
- **Sampling Method to be Used:** ☐ Systematic (every 5th-10th plant) | ☐ Ratio Count
(e.g., 2-4 seed heads harvested of 20 on a single plant)

6. Biosecurity Protocol ("Clean Start Rule")

- **Sanitization:** All boots, clothing, and tools will be cleaned of visible soil/debris prior to entry.
- **Pathogen Management:** If Jumping Worms or BLD are present, the property will be treated as a quarantine zone; all gear will be deep-cleaned immediately after leaving the site.
- **Material Minimization:** Only seeds and minimal stems will be removed to reduce the spread of bacteria/fungi.

7. Reporting & Deliverables

The following documentation will be submitted to the Land Trust POC by [Insert Date]:

1. **NSN Collection Form:** (CSV/Excel file detailing species and quantities).
 2. **Geo-referenced Data:** GPS points for each population sampled.
 3. **Visual Proof:** Photos or Herbarium specimens for species verification.
 4. **Right of First Refusal:** The Land Trust retains the right to request a portion of the cleaned seed or resulting germinates for on-site use.
-

Signatures of Agreement

Stewardship Director/LandManager: _____ Date: _____

Lead Collector: _____ Date: _____

