

# Seed to Tree Pipeline - Seed Collection Guide for Volunteers

*TreeFolks, 08/26/2023*

## **Purpose:**

Every tree starts as a seed, and every tree is needed in our fight to reforest Central Texas. TreeFolks plants seeds, saplings, and trees throughout Central Texas to combat global warming and the negative effects of reduced tree canopy coverage. These plantings can lower ambient air temperature up to 10 degrees, protect waterways from runoff and pollution, make our urban spaces quieter, and improve human health and well-being. Unfortunately, TreeFolks needs so many young trees for these projects that we have trouble sourcing them from local growers. Furthermore, many of our native trees are not commercially grown. Through this collection, you can make a significant impact on the population of one or more of these tree species!

## **General Seed Collection Directions:**

- Research the ecological characteristics of the species to locate appropriate populations or utilize tools like iNaturalist for guidance.
- Identify the target species within its natural habitat.
- Preferably collect from native tree species growing wild in their natural habitats. Do not collect seeds from landscaped or private gardens without permission.
- Avoid collecting from nursery-grown plants, cultivars, hybrids, or nativars. These are often identified by named varieties (e.g., "Pride of Houston" yaupon) or with an "x" in the scientific name (e.g. "Lantana x hybrida" is a hybrid lantana).
- Obtain explicit permission from landowners or public entities (including parklands) before collecting seeds on their property.
- Dress appropriately for fieldwork, considering clothing, sun protection, insect repellent, and water supply.
- Equip yourself with at least one seed collection bag. Use separate bags for related species to prevent confusion.
- During the appropriate season, gather seeds from the ground (only recently fallen) or easily detachable ones from the tree.

- Enhance genetic diversity by collecting seeds from multiple plants of the same species.
- Refrain from collecting seeds from rare, endangered, or threatened species.
- Refrain from extensive seed collection during drought periods, as seeds and fruits play a crucial role in wildlife survival.
- Adhere to the principle of responsible collection: Collect no more than 10-20% of the available seed, avoiding excessive depletion of any single plant.

### **Harvest Timing:**

Collect seeds at maturity, at the point of natural dispersal. Indicators that seeds are ready to harvest include:

- Seeds are full-sized and hard.
- Seed coats are changing color – usually from green to a darker hue.
- Some seed capsules (if present) are opening.

Refer to the species list on our website that contains information about seeds ripening times and other species-specific information.

### **Collecting Methods:**

You may want to wear gloves as protection from potential irritating compounds. Hand collection methods include plucking, stripping, raking, clipping, or shaking seed from plants. Seed on the ground can be old, moldy, infested with insects, or even from a different species. It should be collected only if recently fallen and with caution. Inspect seed and their fruit/capsules/coverings for insect damage. This may indicate that much of the seed on the plant is not viable.

## Post-Collection Seed Processing:

Note: If you don't feel comfortable processing seeds or don't have time to do so, please ship or deliver them to TreeFolks without delay so our staff and volunteers can readily process and store them at our facility.

- For wet, pulpy fruits remove seeds from moist or soft tissues after collection to prevent mold, rot, and germination inhibitors.
- Process dry fruits by detaching any associated structures and segregate seeds from remaining flower heads, chaff, etc.
- Opt for hand-based separation by breaking apart seed coverings and manually picking seeds.
- Utilize tools like rubber mats, sandpaper-covered wood blocks, rolling pins, sieves, and wire screens.
- For certain seeds that might cause irritation, consider wearing gloves and a mask.
- If seeds are dense and unwanted material is light, use a fan to blow away excess chaff.
- Assess the viability of nut species (e.g., oak) by submerging in water once all accessory structures are removed; viable seeds will sink.
- Ensure proper air drying of seeds before storage and expedite shipment/delivery to TreeFolks.

Place seed from individual collections in paper or well-aerated bags. Paper allows seeds to “breathe” whereas plastic will cause them to rot and mold. Fill out and attach this Seed Collection Form to ensure that each batch of seeds contain this information:

- Species name.
- Collection location (GPS coordinates if possible).
- Date collected.
- Name of collector
- iNaturalist observation ID (if applicable).

For seed donations, drop off or mail labeled seeds to **TreeFolks at 10803 Platt Ln, Austin TX 78725** along with the filled out [Seed Collection Form](#) (or iNaturalist observation ID, if applicable). There is a seed donation bin located next to the front door labeled “Place Seeds Here” at TreeFolks in which you can place seeds. Alternatively, large seed volumes can be picked up by TreeFolks staff. Please email [vit@treefolks.org](mailto:vit@treefolks.org) to let us know your plan!