

Scion wood collection for Southern American chestnut conservation

The American Chestnut Foundation is seeking scion wood from wild American chestnut trees from the southern population. Population studies have determined that trees found in Western TN and KY, GA, AL, and MS represent the southern population and are the most genetically diverse. The objectives of this collection are to:

1. Conserve genetic diversity of **unique and underrepresented populations** of American chestnut through grafting.
2. Grow these grafted plants in favorable conditions (including growth chambers) to promote flowering and ease of pollen collection.
3. Future utilization of pollen and flowers to outcross transgenic chestnut.

Goals for 2024: Gather around 100 sources from the south

Protocol

- Coordinate with Jamie Van Clief at Jamie.vanclief@acf.org for the collection of this scion wood.
- Scion wood collection should be done during winter dormancy only, which is commonly marked by the loss of leaves or brown leaves dangling (flagged) on their branches. Ideally, collected between December 2023 – January 2024.
- It may be necessary to visit sites twice: once, before winter dormancy to ensure species can be identified to the American chestnut, particularly in areas where they co-occur with chinquapin. Second, when trees have gone dormant to collect scion wood.
- Scion wood should be at least 3 inches long and contain 1 or more unopened buds. With nut grafting larger buds with space in between buds are preferred (see photos below).
- We are looking for scions that are about the size of the lead in a number 2 pencil. Last year we did receive some scion that was too large in diameter.
- Collect 10 pieces of scion wood per tree, when possible. At a minimum, we are looking for about 15 buds. However, use judgment when collecting from small trees to not jeopardize the tree's survival by over-collecting.
- Take GPS coordinates from each tree using the TreeSnap application for smartphones (<https://treesnap.org/>) or with a GPS unit or smartphone. Ideally, trees have already been ID'd and entered into TACF's dentataBase.
- Place scion wood from a single tree in a one-gallon sealable bag.
- For each tree, **place a note card in the bag and send an email containing:**
 - Data collected
 - County
 - State
 - Latitude and Longitude
 - Previously used for breeding or not: Yes, No, or Unknown
 - TreeSnap ID or wild tree code from Regional Science Coordinator (if applicable)
 - Public or Private land (do not trespass!)
- Before sealing, place the card in the bag, then roll the bag from the bottom to the top to remove excess air.
- Do not write on the bag as even permanent markers will fade or be scratched off during

handling and storage. Temporary writing on bags is fine, but do not rely on them for storage.

- Do not place a damp paper towel in the bag. Moisture from the towel commonly causes mold during storage.
- If desired place them in damp (NOT WET!) peat moss in the bag. The peat moss should be damp enough that you can squeeze it into a ball but not so damp you can squeeze water out of it.
- While in the field, store scion wood in a cooler with cold packs and place it in the refrigerator's crisper drawer until shipping. Do not place it in the freezer.
- Please ship scion wood no later than 2-3 weeks after collection.

Shipping

Ship on Sunday through Wednesday via 2-day shipping to the attention of Steven Flurry. Do not ship on Thursday or Friday.

Steven Flurry
23332 Success Road
Saucier MS, 39574

Please send Steven and **Jamie the shipping tracking number and scion information** so everyone knows what's been shipped. TACF will cover the cost of shipping. Contact Jamie.vanclief@acf.org for UPS or FedEx account numbers. In the memo section of the shipping document, and **on the box please write "southern scion"** so that TACF and USFS can track the shipping costs and packages associated with this project.

Contact information:
Scion- Steven Flurry
601-528-2117
steven.flurry@usda.gov

Jamie Van Clief
Jamie.vanclief@acf.org
828-281-0047, ext. 1107

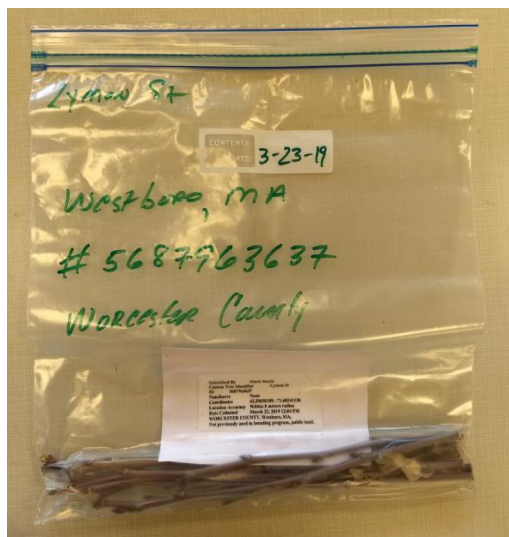
Ship samples on cold packs and in a small foam cooler, if possible.

Supplies:

- Sealable gallon freezer bags
- GPS unit or smartphone with TreeSnap (<https://treesnap.org/>)
- Permanent marker for making notes on cards
- Note cards or paper
- Pruners hand and/or pole, depending on tree size
- Cooler and cold packs



The pictures above are the preferred size.
In the first picture below the top 2 buds or acceptable but the buds below are on the small side.
In the last picture below the buds are too small



An example of how you should package the scion wood