

Native Plants Planting Logistics

Get the Facts

Native plants are those that occur naturally within a region after slowly adapting over millennia to their local climate, soil conditions, and other forms of life. The passage of time genetically engineers native plants to thrive in the encompassing environment without human involvement, enabling them to provide benefits to many other beings within the same ecosystem. The organic, synergistic, and innate relationship of native plants to their surroundings is all about balance and diversity, crucial elements of every clean, green, and beautiful community.

Native plants require less water and no fertilizer, prevent erosion, protect soil quality, reduce air pollution, provide food and habitat for wildlife, promote biodiversity, are resilient to pests and disease, and give each unique region a different look and feel.

On the other hand, non-native, exotic plants disrupt the system, and not in a good way. They often provide little or no support for other forms of life and instead compete mercilessly with native plants, degrading wildlife habitat and upending the delicate balance of nature. Sometimes, this even can lead to the establishment of a monoculture. Species like kudzu and tree of heaven are well known for this type of destruction. The former chokes all other forms of plant life by swallowing and blanketing them with its unmitigated growth, while the latter injects poison into the surrounding soil to those other forms of plant life cannot survive.

A properly selected, placed, and established collection of native plants will create a thriving landscape that requires minimal upkeep while providing numerous benefits to animals and human alike.

Another way to help ensure sustainability is to get the immediate community that will benefit involved from the beginning. Having their buy-in and participation will help instill ownership and pride in the work and can help lead to increased participation in activities in sustaining the garden.

Meet with the local government (parks, planning and/or management department(s), downtown organization, schools, and neighborhood associations to determine areas of need.

Prioritize the Behaviors

Now that you've been a sustainable sleuth and gathered all your evidence. You need to identify what behaviors you'd like to change with your event.

If you're hosting a beautification project, what key message do you want to resonate most with attendees and participants?

You can consider the following actions:

1. Look for blight in your community. *What needs to be done to turn this into a beautiful community?*
2. Look for areas without trees and flowers. *Develop a plan to install.*

Develop & Implement Action Plan

For information on the native plants in your area, [search online](#), explore the [Audubon Native Plant Database](#), or contact a nearby [Native Plant Society](#) member of [Master Naturalist](#) chapter.

Create a list of plants appropriate for your hardiness zone and the growing conditions you've determined exist for your site.

Contact your local nursery, Master Gardeners or Extension office, landscape architect.

With the plan in place ask business owners to support the project.

Ask them to donate supplies (flowers, bulbs, paint, and brushes, etc.) and to provide window space for flyers announcing your program.

Tree Planting

For a tree planting to be successful, it is imperative that the right tree is planted in the right place the right way at the right time. Undertaking the necessary steps for preparation will yield much better results in the long run. When it comes to trees, success is measured decades after they are planted — not the day they are put in the ground. Planting a tree is an investment in the future, and attention to detail is the key to success.

A biodiverse mix of native species should be selected, each serving a different function within the landscape. North America is broken up into hardiness zones, and only certain trees will flourish within each region. Soil, water, and sun conditions specific to your planting area also will affect the trees you plant, so be sure to match what you find onsite with the available native tree options.

Before any holes are dug, utility companies—electricity, gas, phone, internet—must be notified to ensure that no conflicts arise from your planting efforts. In many areas, this alert is required by law. Knowing where utility lines run before you plant reduces the chances of a dangerous situation or utility service disruption from occurring and keeps your trees from having to be heavily structurally pruned or removed altogether after years of growth. Ideally, trees should be planted a minimum of 15 feet from every utility line, and a similar distance away from buildings, driveways, sidewalks, and other trees.

When choosing a specific tree to plant from a nursery, look for and avoid the following:

1. Girdled roots: those that are growing in a thick circular fashion around the trunk.
2. Black roots: healthy roots should be white or tan in color.
3. Wounds: damage to the tree disrupts the flow of its vascular system, may result in decay, and offers access for pests and disease.
4. Poor structure: the tree should exhibit a single leading stem at the top and good branch structure.

The hole you dig for your tree should be at least twice as wide as the root ball, and wider at the top than at the bottom. To determine the depth of the hole, first make sure that the root flare—the part of the trunk that gets thicker where the trunk meets the root ball, like the stem of a wine glass—is clearly visible. Sometimes, you will need to remove soil from the top of the root ball to find the root flare. Root flares regularly get buried at nurseries when trees are put into bigger pots as they grow. The hole only should be as deep as the root ball, measure from the base of the root flare to the bottom. Planting a tree too low is one of the most made errors that leads to eventual decline and death. Be sure to shave off and remove any grass or other vegetation from the soil so that it does not get replanted and compete with the tree for resources.

Using proper tools will make your work a lot easier. A pick mattock and drain spade for breaking up compacted soil, a digging shovel for scooping, and a pair of pruners for cutting roots is a recommended combination. For an extra touch, use a tarp to collect soil while you dig. Doing so will allow you to backfill the hole easily without leaving a trace on the landscape surrounding the newly planted tree. A pair of gloves and a reusable bottle of water also help.

Once the hole is dug, inspect the root ball, and address any girdling roots you find by cutting them individually or by scoring the entire root ball. While this may appear violent and destructive, trees are tough, and most will survive without issue. Regardless, it is better for a tree to fail a few months after planting than after years, or decades, of growth.

Remove irrigation stakes, tags, or anything else that came on the tree, and place the tree in the hole. Look at the tree from two different angles (90°) from the tree to verify that it is being planted straight. Backfill the hole with the soil you dug out, using any excess to form a berm in the shape of a donut starting at least 6 inches from the trunk. Compact the soil enough for the tree to sit firmly in the ground, but do not stomp it in as hard as you can. The reason the hole should be twice as wide as the root ball in the first place is so that small roots can make their way into the surrounding native soil, which only can happen if that soil contains enough air pockets to accommodate the growth of new roots.

Use ample mulch—an entire 2 cubic foot bag for a 15-gallon containerized tree, for example—to build up or create the donut-shaped berm. Do not pile mulch up against the trunk of tree. Instead keep it at least 6 inches away from the trunk. Mulch provides many benefits to trees, including water collection, temperature maintenance, nutrients from decomposition, keeping lawnmowers and string trimmers from doing damage to the trunk, and moisture retention. However, retained moisture perpetually on the trunk of the tree easily leads to rot, decline, and death.

Maintenance

Following planting, enacting a watering plan is an absolute must. Trees require water to survive and will die in its absence. The amount and frequency of watering depends on the species and size of tree, as well as soil and climate conditions. Some research will be required to develop your watering plan, but [THIS](#) is a good start.

Trees should not be staked unless there is evidence that environmental forces are precluding their proper establishment. The reason trees have a root flare is that they grow larger, and therefore

stronger, at points in which extra resistance is required. So, most of the force that wind exerts on trees is absorbed by the root flare. Staking a tree when it is not needed could lead to weakening the tree as it grows. There also are many ways to improperly install stakes and they must be removed before the tree grows enough for the materials to begin doing damage. As such, above-ground stakes are not recommended. If you need to stake a tree because the wind is blowing it around in its hole, for example, take a couple of hardwood dowel rods, 3 or 4 feet long, shave one tip of each rod into a point, and drive the rods at opposing 45° angles through the root ball all the way into the ground, essentially stapling the root ball to the surrounding native soil. This method will hold the tree in place while allowing it to strengthen from environmental forces. Further, these stakes do not need to be removed as they will decay over time into the soil.

As for the right time, planting season is primarily climate-based and directly related to the hardiness zones. Winter is the best time to plant in the south, while later spring and early fall are more appropriate for the north.

Tools and Safety Equipment

Tools that your volunteers will find useful include:

- Rakes (steel and leaf)
- Shovels (flat and round tipped)
- Hoes
- Pitchforks
- Hand trowels
- Hand cultivators
- Pruners/loppers
- Wheelbarrows/gardening carts
- Hose/spray nozzle

Suggested safety equipment:

- Gardening gloves
- Goggles

Evaluate Impacts

Volunteer groups will be responsible for keeping track of improvement metrics to be included in your report.

How will you measure the behavior change impacts and specific community improvements?

- **Results Worksheet**
- **Reporting Instructions**

Provide Feedback

- Say “Thank You”

- What's the most successful and what can be improved upon?
- Who should be consulted on this step?
- How do you communicate that to community leaders and stakeholders?