

# CREATING YOUR NEW NATIVE LANDSCAPE

By Trecia E. Neal



## FIRST STEP

### Soil assessment

Native plants are advantageous, because:

- **Native plants do not require fertilizers and require fewer pesticides than lawns.**
- **Native plants require less water than lawns and help prevent erosion.**  
The deep root systems of many native plants increase the soil's capacity to store water. Native plants can significantly reduce water runoff and, consequently, flooding.

One of the great things about native plants is that they do not require a lot of soil preparation. They are already adapted to native soil, including clay soil. If your soil is extremely degraded and compacted from construction, you may want to do some aeration and add a little compost to improve fertility. You might also want to do a perc test to see if your soil is compacted and how quickly the water is draining through it. See [How to Do a Perc TestTest.pdf](#)

Many native plant professionals recommend inoculating native plants with appropriate mycorrhizae fungi. The study of mycorrhizae is a new and fascinating look at the connections that take place underground between roots and fungi. This is an emerging and evolving technique and there are numerous mycorrhizal products on the market. It is recommended to research mycorrhizal fungi products carefully before purchasing and using these products. Liquid "tea" compost, which is a concentrated, highly nutritious liquid compost can also be used when watering in new plantings.

### Soil Tests

Soil tests provided by most University Extension offices as well as environmental laboratories give a profile of your soil characteristics, including pH, levels of nutrients (N, P, K) and micronutrients (B, Mg, Cu), soil texture, and cation exchange capacity (CEC). CEC influences the soil's ability to hold onto essential nutrients and provides a buffer against soil acidification. Soils with a higher clay fraction tend to have a higher CEC, and organic matter has a very high CEC. A soil test should be done before a garden plan is developed to help decide whether or not soil improvements are needed. Most native plants grow best in their native soils (i.e., without amendments or soil replacements), however, some rain gardens and specialized plantings may require soil improvements.

It is possible to learn to identify soil textures by taking samples for study and using a soil texture triangle to determine a soil's characteristics. See [Soil Triangle Calculator](#). This information is indispensable when planning an optimally designed plant community for a site.

**Note:** In many residential and commercial locations, native soils have been removed and replaced with construction-grade or virtually “dead” topsoil. In such cases, a top dressing of compost and/or multiple applications of a liquid tea compost may help jumpstart the building up of healthy microbial and mycorrhizal growth in the soil.

### **Links for Soil Tests for Local Counties**

[Cobb County Soil Testing](#)

[DeKalb County Soil Testing](#)

### **Soil amendment**

DeKalb County Compost: <https://www.dekalbcountyga.gov/sanitation/mulch-and-compost>. This county will deliver compost in a truckload.

Cobb County offers free compost and mulch, but their website is little unclear about whether they will deliver it in a truckload. When Googling Cobb County Compost I was able to find several people who have picked it up for free.

My suggestion would be to call or email [kimberly.white@cobbcounty.org](mailto:kimberly.white@cobbcounty.org), Keep Cobb Beautiful Executive Director, (770) 528-1135, and hopefully she can direct you to the correct place for information.

Cobb County has free mulch, so you might want to ask about that also when you contact Kimberly. Mulch should be applied at a depth of 2 inches, so you would need the same amount of mulch as you do compost (see below)

### **Compost Calculator**

<https://mcgillcompost.com/mcgill-compost-products/compost-calculator#toggle-id-3>

This link is a calculator that will tell you how much compost to apply. Use a depth of 2” for application.

## **SECOND STEP**

### **Removal plan for existing vegetation**

Developing an overall plan to remove existing vegetation is extremely important when installing native plantings. Some invasive or aggressive species may require multiple applications of herbicide or repeated cutbacks to successfully remove them from a site. If a more organic approach is desired, solarization may take up to 3 to 6 months, or longer, to kill off existing vegetation, depending on the time of year. See [Cardboard Solarization](#). If large trees need to be removed, equipment or subcontractors probably will be needed. Scheduling any removals in advance will help lower any hidden costs that might occur with last-minute removals.

Here is a good article on the process of removing English Ivy from the property: See [English Ivy Removal](#). Ivy removal is something that should be started right away. Ivy removal is at least a two-week process, maybe four weeks, depending on the weather. Once all ivy has been removed, you will need to wait several weeks to see if it re-sprouts. If it does, you will need to treat it. When you are sure there is no regrowth, you can top-dress with compost, and then mulch. That will keep everything looking great until the installation.

## THIRD STEP

### Plant Procurement

Finding and purchasing native plants can be time-consuming, partly because nurseries are just starting to catch up to the consumer demand for these plants. However, native plants are out there! You might have to do some travelling to procure them, or you may even need to mail-order some. It is always best to purchase native plants that have been grown from local ecotype (local plant genetics) from your area, but you may have to go a little farther afield to find what you need.

If it all possible, it is best to inspect your plants before purchasing. I can recommend several great native plant nurseries in Georgia:

- [Beech Hollow](#)
- [Night Song Nursery](#)
- [Nearly Native Nursery](#)
- [Cottage Gardens Natives](#)

Most other nurseries are primarily wholesale dealers. I am glad to purchase plants from them if you would like some help.

### What to look for:

Trees should have a strong central leader, a firm root ball, no girdling roots, no pest activity, and healthy, undamaged bark. Herbaceous forbs (a herbaceous flowering plant that is not a grass), grasses, ferns and sedges should be pulled out of the pot and inspected for a healthy white root system and the absence of disease or pests. **REMINDER:** Native plants will likely have insects feeding on their foliage or blooms. This is one of the main reasons we add them to our landscape: natives provide numerous ecosystem services to our yards, one of the most important being their role in the food cycle for wildlife.

## FOURTH STEP

### Installation

- A) Utility Locations (gas, electric, etc. lines). Don't forget to call the appropriate utility locator service before any digging is done in your installation area. Be sure and give them plenty of lead time to get to your location.

B) Weather. Time your installation. An ideal planting day is one that is cloudy and has little or no air movement with 50% relative humidity. Try not to plant immediately after rain if at all possible. See [How long after a rain do I need to wait to plant?](#)

C) Site Preparation

1. Some beds may need to be enlarged or the shape modified to fit the new plan. Make these changes now. You can use [Professional Marking Chalk](#) to outline the shape of new beds. An old garden hose or rope will also do the job.
2. If soil needs to be removed, remove the least amount possible.
3. Cardboard is a great way to kill existing vegetation. See [Cardboard Solarization](#).
4. Herbicide Use. It seems counterintuitive to use herbicides when installing a native plant landscape. However, herbicides, when used correctly, are an important tool in killing monocultures of turf or other non-natives so that new native diverse plantings can thrive. These new plantings will support pollinators, birds and other wildlife species that depend on native plant diversity and structure.

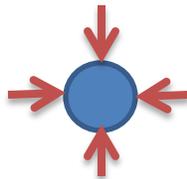
Herbicides are intended to kill plants—and only plants—but it is important to choose the correct herbicide for the job. Research carefully what you intend to eradicate, and use the minimum amount of chemical necessary. If you hire a professional, make sure that they have a commercial applicator license, and question them thoroughly about what they plan to use. Here is a table from the Missouri Prairie Foundation that lists herbicides that will treat specific invasive plants and when to use them: [Missouri Invasive Plant Treatment](#)

D) Temporary Signage. Signage can help neighbors understand that native landscaping is in process as well as the goals of your project. This helps people see that this disruption is intentional. Education is a necessary part of the process. There are many certifications for your landscape. Certifications are programs sponsored by many National Organizations involved in native plant restorations. When applying, you will submit an application that describes your plantings. I recommend the following:

[Monarchs Across Georgia Pollinator Certification](#)  
[Georgia Audubon Wildlife Sanctuary Program](#)  
[Rosalyn Carter Butterfly Trail](#)  
[National Wildlife Federation Certified Wildlife Habitat](#)  
[Homegrown National Park](#)

## Digging Holes

- a. Trees: A hole twice as wide as the container size or root ball is the best-sized hole for planting a tree. The depth should be approximately the same size as the container or root ball, making sure that the crown of the plant or root flare of the tree sits an inch above soil level.
- b. Seedlings: the plant should be placed at the same height as the soil line.
- c. Scoring the Roots: It is usually best to use a knife or shears to score the roots on four sides.



When a plant is pot-bound, this will help create openings for new roots to emerge and encourage root growth.

## E) Putting plants into the ground

- a. Depending on how complicated or how large your planting plan is, I find it helpful to grid out the planting area into five-foot squares. You can use string, twine or Professional Marking Chalk.
- b. Lay the plants out according to the grid. Keep the plants in the pots as long as possible so that the roots don't dry out.
- c. Dig the holes approximately to the depth and a little wider than the pot. Remove the pot from the plant. If the roots look like they are pot bound, cut them with a knife in an X pattern around the roots.



Pot Bound Roots

- d. The plants should be placed in their holes and the holes backfilled. The crown of the plant should sit about one inch above the soil level. If the plant sits too low it will become waterlogged and the roots will rot. Compress the soil gently to make sure that all of the root hairs have soil in contact with them.
- e. Be sure and water all new plantings. See **FIFTH STEP** for more information.

## F) Mulching

Mulching is valuable for many reasons. In their native state, plants rely on dropped leaf litter to replenish the soil layer and to protect seedlings. Most native plants don't require mulch to be healthy; however, our urban design "ethos" considers neat mulched beds highly desirable, and so it can be helpful to define your beds with some mulch.

If you use mulch, a thin layer of hardwood leaf mulch is the best choice. These leaves are available for free, literally by the ton, almost year-round in the Atlanta area. You can look for the large yard waste bags that are stacked by the curbs everywhere starting in early Fall. Make sure you know whether or not these leaves have been treated with any kind of chemicals before you take them home. If you are lucky enough to have hardwood trees on your property, gently rake your leaves onto your beds or into a corner on your property where you can use them at your leisure. Resist the urge to mow them if at all possible. Many of our pollinators overwinter in the leaf litter and mowing the leaves will kill them. I always say "Leaves don't want to leave home!"

When applying mulch, make sure that the mulch doesn't touch any part of the plant. This can encourage disease. Leave at least 2"-3" clear around the stems, crowns or trunks of new plantings. Avoid using rocks, stones or gravel as mulch.

An alternative approach is to use green living mulch. Gardening in layers, by using green mulch such as sedges and groundcovers, will suppress weeds and also provide habitat for wildlife and invertebrates.

If you are working in an area that is prone to becoming water-logged, living green mulch is your best option, followed by hardwood mulch.

## FIFTH STEP

### Watering

Even though native plants don't require much additional water, establishing new plantings will still require supplemental water, especially depending on the time of year that you are planting.

The best time of year to put in new plantings is usually in the fall or early winter. This allows the plants to put their energy into establishing extensive root systems without the stress of photosynthesizing and putting out new leaves. **Many native plants can have 3'-7' root systems.** This root system is what makes native plants so desirable for controlling water flow across your landscape. They are literally sponges and will soak up excess water during a rain event. When planting in the fall or early winter, the establishment period will run through that fall, winter and spring.

Plants that are installed in the spring will require the spring, summer, fall, winter, second spring and second summer to become established.

The most common reason that plants die after planting is improper watering. Native plants prefer deep and infrequent watering. One thirty minute soak every 7-10 days is much better than 10-15 minutes three times a week. How often you water will depend on your specific soil type, the sun exposure, the weather, and the age of your plants.

During the establishment period, water according to your soil moisture, not a time table. It is helpful to have a soil moisture meter that will reach at least 4" down into your soil profile. See [Soil Moisture Meter Example](#)

Make sure that you know your soil type (refer back to your soil test). Heavy clay soils will take much longer to saturate and they will also retain moisture much longer than sandy soils. This means that you will need to water longer with clay soil, but you will also need to slow the rate of watering down so that the water will have time to saturate your soil. Soaker hoses are great for this type of soil. If runoff is still a problem, you may need to adjust your watering to several shorter applications on the same day to achieve adequate saturation.

Sandy soils drain rapidly and dry out much more quickly. When you are first starting out, check your soil after thirty minutes of watering at a depth of 3-4". If the soil profile is wet all the way down to 4", stop watering. Check the soil every few days to see when it is dry, and repeat the watering.

Do not allow the entire rootball to dry out during the establishment period. Very small rootballs, like those from 4" pots, will dry out much more quickly and need more frequent irrigation than those from larger pots. Water smaller rootballs when the top 1-2" of soil are dry.

If you are watering during the summer, water on relatively cool days, below 85°F if possible. Be sure and check your local water restrictions. Watering in the early morning is recommended.

Signs of plant stress include: dull or wilting foliage, brown or yellow foliage, and leaf drop. These symptoms can be caused both by too frequent, and by insufficient, watering.

I hope these resources help! Let me know if you have any questions. You can contact me at:

Trecia Neal

[tneal@greengardensedu.com](mailto:tneal@greengardensedu.com)

404-857-4132

#### **Resources:**

Avis, R., Avis, M., & Coen, T. (2021). *Building your permaculture property: A five-step process to design and develop land*. New Society Publishers.

Missouri Prairie Foundation. (n.d.). *Keeping nature near - grow native!* Grow Native! Retrieved December 27, 2021, from <https://grownative.org/>