

How to Install your new Native Landscape

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So, you just received your new native design from Green Gardens Education & Designs (GGED), and it has a lot of plants! Where do you begin?

GGED's designs are purposeful and created to mimic as closely as possible a natural ecosystem. In nature, there are no blank spaces, as plants fight to occupy as much area as possible. For the homeowner, this is the part of gardening that we dread because open spaces in the landscape usually end up covered in what we call 'weeds' but are just plants in an unwanted space.

In native landscaping, we have a saying: **'First Year it Sleeps, Second Year it Creeps, and Third Year it LEAPS!'**. This is because native plants spend their energy the first year after being planted, growing their massive root systems. Some native plants have roots anywhere from 3'-16' deep into the soil. This is an attribute that makes them very drought resilient, and able to absorb water that rushes across the landscape during rain events.

When Do I Plant?

Installing new plants into your landscape in the Fall of the year gives your plants a better chance of success. During the winter months, your plants are busily growing out their roots so that next Spring, they can start growing foliage above-ground. Winter rains often provide all the water needed for these new plants, saving us time, energy and money spent on watering. Native plants are literally sponges and will soak up excess water during a rain event. When planting in the fall or early winter, the establishment period for your new plants will run through that fall, winter, and spring.

Plants that are installed in the Spring can still be successful but will require closer monitoring and supplemental watering. These plants will require the spring, summer, fall, winter, second spring and second summer to become established.

GGED will provide you with a plant legend that shows all the species used in your design, plant icons, and the approximate number of each species. These numbers often are overwhelming, because some species may have several thousand of them included in your plan.

Don't Panic!

Don't be put off by these large numbers! GGED is designing an ecosystem for your property, and many of these species will spread and fill in your planting beds over time. The goal of the design is to provide species that serve a purpose in your landscape. The purpose could be to slow down the flow of water across your landscape to capture it for your soil, or the species might be an important host plant for many different species of Lepidoptera, they might be used as nesting material for birds and mammals or be an important food source for wildlife during the different seasons.

Where Do I Purchase My Plants?

When beginning to plant your new landscape, consider using plugs. Plugs are a cost effective way to implement a new design. Plugs are sold in trays of 32, 50, or 72 plants in a tray. The smaller the number, the larger the size of the individual plant will be. The larger the number, the cheaper the cost per plant will be. Plugs usually range in cost from \$1.50 per plant, to \$5 per plant (for harder to grow species).

Compare this to the cost of buying one-gallon pots from a retail nursery. These plants usually start at around \$12 per plant. You can quickly see how purchasing plugs of your grass and perennial species will be a huge money saver for your landscape. Plugs usually must be purchased from a wholesale plant vender. GGED is happy to help you source these plants as an additional service to you.

GGED recommends purchasing any woody species in your design in at least a 3-gallon pot. It is tempting to buy the largest trees or shrubs possible so that the landscape will look 'finished', but thankfully you can resist this temptation. Large trees and shrubs can be very costly, and if you have many of these in your design, it all adds up!

Recent research from the University of Minnesota's Extension has shown that older, larger trees need a lot more time to establish their root systems. Younger trees and shrubs have a much more vigorous root system, and this will enable branch and canopy growth sooner than an older more established plant.

Caliper of tree trunk	Root establishment time
1 inch	1.5 years
2 inches	3 years
3 inches	4.5 years
4 inches	6 years
5 inches	7.5 years
6 inches	9 years

Growth Rate of Trees per Size

When providing you with your new plant legend, GGED has tried to estimate the minimum number of plugs required for these species to get your new landscape started. However, remember that the plant legend is a guide, and it may take more plugs than I have indicated for your personal preferences.

How to Plant

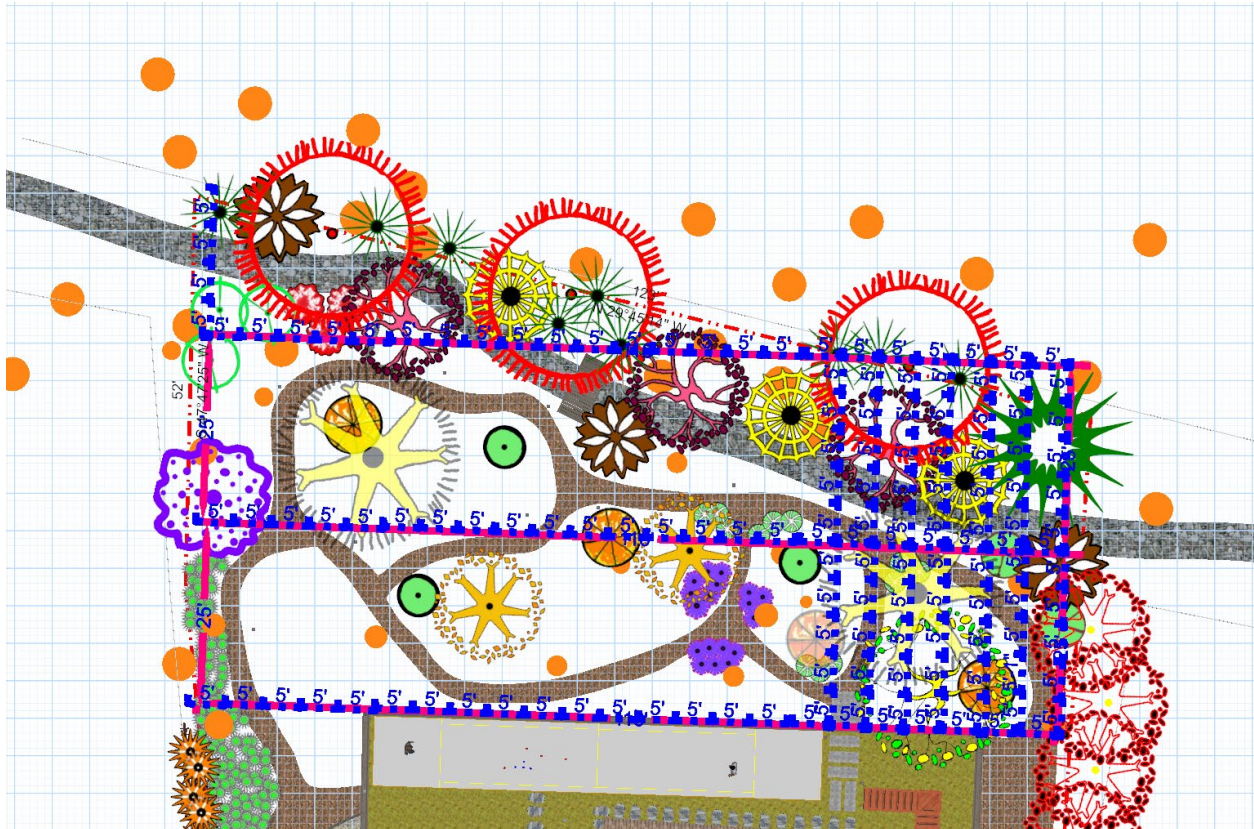
To begin planting, make sure that you have taken care of any hardscaping needs that might need to be completed. Then begin laying out paths if those are indicated in your design.

Laying out the placement of paths and plants can be the most tedious part of the job; however, it is a critical part of this process.

Begin by laying out a planting grid. I have found that gridding off the property every five feet is a great first step. Not every landscape is a perfect 'rectangle', so it may take a little creativity on your part to accomplish this task. Begin by

marking out every five feet of the area to be planted. You could use [flagging](#) to do this, or anything else that you happen to have on hand. If flagging is used, I recommend using two different colors, one for every 5', and one for every 10'. This will help you see where you are in your design and in the landscape.

Here is a picture of a backyard for an example.



I didn't number all the way across because I figured you would get the 'idea'...

Once you have the area gridded off, then you would use the grid, and any existing trees that are indicated in the design with an icon, to begin laying out the paths. Starting with the path placement helps you anchor all other planting areas in the design.

The path can be marked with a [biodegradable spray paint](#). This is just an example of the type of product I'm talking about. Once you get the paths marked off, you can then mark off any planting bed perimeters using the same type of paint. It might be helpful to flag these beds around the perimeter so that if a lot of rain happens, the markings don't disappear.

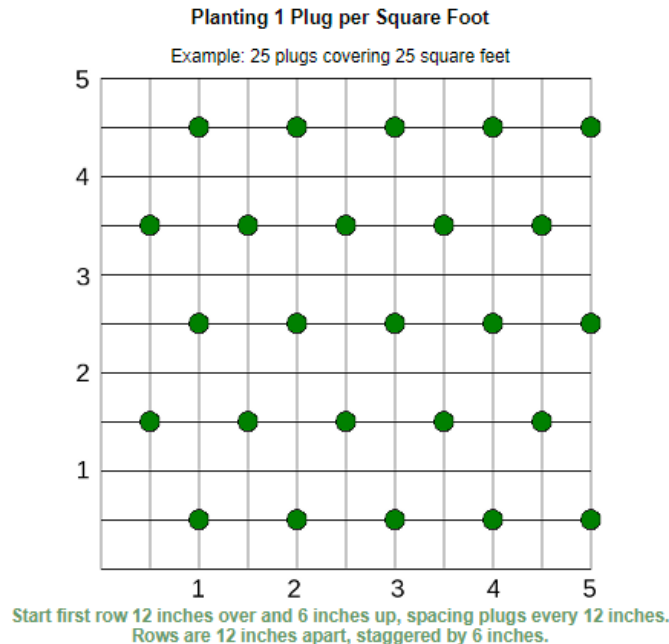
Now Can I Plant???

Once the path has been placed accurately, the job of planting can begin! Successful native plantings use the idea of **'Green Mulch'**. This means that instead of using wood mulch for our planting areas, we are using plants.

If you are interested in learning more about this concept, I recommend reading ['Planting in a Post Wild World'](#) by Thomas Rainer and Claudia west.

In most designs that GGED creates, sedges are used as the Green Mulching layer. Sedges are amazing, underutilized plants in the nursery industry, although they are currently undergoing a renaissance thanks to homeowners interested in native landscaping. They are often widely available in the trade, and there is a species for almost every growing condition that occurs. Please check [Lady Bird Johnson's Wildflower Center](#) for accurate information on what is native in your area.

Define the area you want to plant and grid off the area. Sedges are usually planted on a 12"x12" to an 18"x18" grid system. You can either use a squared grid, or a diamond shaped grid (shown below).



If there are more than one species of Sedge in your design, you can either choose to alternate the species when laying out the grid or drift the species.

Drifting is when you artistically arrange the placement of plants in masses. This is a chance for you to utilize your artistic senses. Be sure to know the mature shape of your Sedge and companion plants, as they all have varying textures and shapes.

Another advantage to using plugs is that you don't have to dig large holes to install your plants! Often, a simple [soil knife](#) is all you need. This is one tool that I always have with me when working in the landscape. If your soil is hard-packed clay, it would be helpful to wet the soil ahead of time so that digging is easier. For managing large numbers of plugs, I recommend using a Planting Drill. Here is the drill GGED purchased:

[Zoro Planter Drill](#)

I have ordered various sized augers from both Power Planter, and Custom Auger. I will say that the augers wear out when you are working in hardpan clay, so be sure to order several of each size.

The size of the auger you will need is determined by the size of the plants you are putting into the ground.

[Power Planters](#)

[Custom Augers](#)

Timing Is Important

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 possible. See: [How long after a rain do I need to wait to plant?](#)

How to Water

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, and usually will not require supplemental watering.

Plants that are installed in the spring will require the spring, summer, fall, winter, second spring and second summer to become established and this requires supplemental water for the plants.

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 timetable. It is helpful to have a soil moisture meter that will reach at least 4" down into your soil profile. [Soil Moisture Meter Example](#)

Make sure that you know your soil type (refer 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 of your plants to dry out during the establishment period. Very small rootballs, like those from 4" pots or plugs, 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.


















































My Sedges are finally planted...now what?

Now that you have the base layer of Sedges or other grasses installed in the planting area, it is time for you to put your personal touch into the bed.

Many of the massed beds that GGED designs utilize Sedges as the base layer, and then an assortment of other Perennials, or Spring Ephemerals to provide seasonal color and ecosystem services.

These species should be planted in the bed in drifts. It is important to consider the color and texture of the species that were selected for your landscape, and how you would like the finished bed to look after maturity. These species will grow and gradually spread through the area and provide a full, lush landscape.

Identify the blooming color of the species to be planted and start planting.

Matrix Diagram Drifting Example

Sedge 

 Flowering Perennial

This is where you can utilize your inner artist. Don't be afraid to experiment with bold color patterns and large masses of species. Over time, these species will intermix a little and will be stunning seasonal displays. Remember that not all the species have the same blooming schedule, so consider bloom time when planning your matrix.

Document what plants were planted in these areas by utilizing plant signage. Many of the species will be evergreen and you will be able to see them all year, but some species are deciduous, and will disappear completely during the winter season. This prevents forgetting where these plants are located, seeing a bare spot and planting on top of the already existing plants (something I've never done before... 😊).

Enjoy Your New Native Landscape

Now it is time to sit back, and watch your landscape evolve. Over time you will spot areas where you may like more color or structure but be sure and give your landscape at least three years to fully mature before adding in new plants.

GGED is always available to provide advice or help with this process.

One more important piece of advice, be sure and photo-document your journey. It is so easy to forget what your landscape looked like prior to beginning the journey, and it is always important to remind ourselves how much hard work you have put in, and how your landscape has changed over time.

GGED always welcomes pictures of your progress! Thank you for trusting GGED with your design, and I'm especially thankful for all you are doing to help this world be a better place.

One of my favorite Doug Tallamy quotes is this:

