SEPTEMBER 2023 | VOL. 5

# SEVEN BENDS AND FRIENDS

OFFICIAL NEWSLETTER OF SEVEN BENDS NURSERY

### Enjoying monthly Updates?

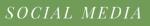
Follow our social media accounts to stay updated throughout the week!



### WEBSITE

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<u>WEBSTORE</u>







Dear valued customers,

I hope this update finds you well and your gardens are flourishing.

We are well underway into our fall planting and gardening season! Landscape designs are coming out and regional garden fairs are once again "all the rage".

It should come as no surprise that we love living and growing in rural Virginia. I, myself, value the ability to access the huge diversity of ecosystems within a two-hour radius of us. It is the ultimate outdoor classroom where I can continue to learn about our native plants and the communities they thrive in. This knowledge influences all my work at the nursery from species selections to large-scale landscape consultations and designs. Our team is dedicated to providing you with expert guidance on selecting the right plants for your garden, whether you live in the rich woodlands of the Appalachian Plateau, the fertile valleys along the Shenandoah River, or the diverse grasslands of the Piedmont. We believe that by cultivating plants native to the state and our unique ecoregions, we can make a significant positive impact on local wildlife and pollinators.

Thank you for your continued support in our shared mission to enhance the biodiversity and ecological health of our beloved Virginia. Sincerely,

Dr. Iara Lacher

## Everything Ecoregions

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GROWING PLANTS NATIVE TO YOUR REGION

When we are planting native plants we are doing so with the goal of contributing something positive to our environment. Where specialty nurseries like Seven Bends are not available, dedicated gardeners may spend countless hours scouring garden stores for native plants, often depending on a label printed with the word "NATIVE" in bold letters. If you are one of these gardeners, over time you may have discovered that those labels can be misleading- some are cultivars and others may not be native to your state at all.

These nurseries simply may not be aware that a plant can be native to North America, but not to their state. The same applies to all species. For example, alligators are native to North America, but not to Maine. Species distribute themselves across the landscape in different ways, often with the underlying geography playing a major role in determining where they are and are not. Ecologists group areas with similar environmental conditions into regions called "ecoregions".





### Updated Fall Fair Schedule!

### **Saturday, September 23** Friends of Green Spring Gardens Family Fall Festival 9 am - 3 pm

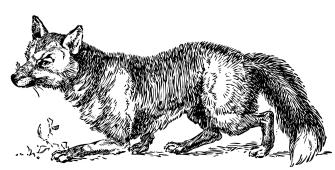
### Saturday, September 23

Fall Festival at Leopold's Preserve 11 am - 3 pm

Saturday, September 30 Northern Alexandria Native Plant Sale 9 am - 2 pm

**Saturday, October 7** Friends of Runnymede Park Native Plant Sale 10 am - 2 pm

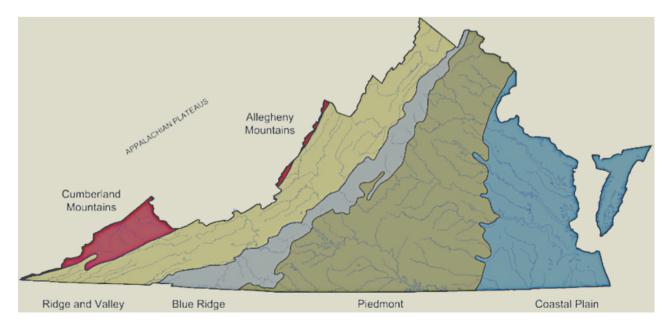
**Sunday October 8** Native Plant Sale and Community Day at Clermont Farm 9 am - 3 pm





What is an Ecoregion: How geography creates plant communities "An ecoregion is a geographic area characterized by distinctive environmental conditions and species communities".

Looking at a map of Virginia (view map below) you will see that we have five distinct ecoregions: Cumberland Mountains, Ridge and Valley, Blue Ridge, Piedmont, and the Coastal Plains. Ecoregions are differentiated by geographical phenomena such as geology, landforms, soils, climate, land, elevation, and hydrology which influence the types of vegetation and wildlife found in such regions. Each plant species has its own specific needs that must be met by its environment to be able to grow and reproduce successfully. These differences in each ecoregion play a huge role in which plants are found. By identifying the ecoregion for your garden, you can develop a better understanding of the plant species that call your ecoregion home, better equipping you to create a garden that is most useful for native wildlife.



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Source: Virginia Department of Conservation and Recreation, <u>Overview of the Physiography and Vegetation</u> <u>of Virginia</u> (p.5)





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Why pay attention to your ecoregion: How ecoregions inform the habitat you create

### 1. Selecting plants that are native to your ecoregion is a great way to contribute to the formation of a community of plants and other organisms that function together.

One great example of a community that functions together is on the cover of <u>A</u> <u>Gardener's Guide to Virginia's Ridge and Valley Native Plants</u>. Looking at the cover you can see it depicts the intricate relationship between Little Bluestem, the Pearl Cresent butterfly, and Eastern Towhees. Little Bluestem is a larval host for the Pearl Cresent butterfly. Eastern Towhees also use Little Bluestem to build nests as well as a food source as they eat Little Bluestem seeds and Pearl Cresent caterpillars. This is only one intricate interaction between Little Bluestem and other living organisms in their environment. However, Little Bluestem is also a host plant for five other native species of caterpillars, feeds a large number of beneficial insects, and provides cover for native Bobwhite Quails. Now think about a River Birch which is a host plant to 413 native caterpillars! You can imagine the impact they have on their native ecoregion and the web of connections surrounding them, other plants, and wildlife!

Plants and animals from the same region have been evolving together for thousands of years. Animals depend on specific species of plants and vice versa. For example, the Spicebush Swallowtail butterfly needs Spicebush to complete its lifecycle as the plant is a larval host. Many of our native pollinators specialize in certain plants and require specific species to obtain food. For example, Native Adams Needle can only be pollinated by Yucca Moths and Yucca Moths require Adam's Needle to complete their life cycle. Nonnatives are unable to support the amount of life that native plants can as the relationship between native flora and native fauna is deeply rooted in them evolving together.











2. Growing plants native to your ecoregion (and sourced from your ecoregion) helps preserve genetics so that plant communities are more resilient to disease and changes in climate.

Genetic diversity refers to the variation in genes within a population or across a species. Genetically different individuals will respond to impacts like disease and climate change differently. This process, called "natural selection", acts on the genetic variation within a population by favoring an individual's genes that give them the advantage in surviving and reproducing. Meanwhile, natural selection acts against individuals who are at a disadvantage to survive and reproduce. In short, plants that survive and reproduce create more offspring to carry on their advantageous genes. Meanwhile, plants that aren't able to survive or reproduce produce less offspring to carry on their disadvantaged genes. Over generations, there can be a noticeable shift in the plant population towards plants that are better adapted to their environment. Preserving the genetic diversity of species essentially allows for more flexibility, or resiliency, in response to change. Because each ecoregion is unique, growing plants sourced locally preserves the genetic diversity across the species as a whole.





3) Plants native to your ecoregion are better adapted to survive and thrive in your garden!

Studies show that because species have become genetically adapted to their ecoregions they grow better in conditions that are more like their native ecoregion's conditions. Over thousands of generations, these populations have evolved to better fit their ecoregional environment, resulting in healthier plants that require less maintenance. When plants are healthier they grow bigger and fuller, filling in your garden beds with vibrant foliage and blooms!

When you select plants that are native to your ecoregion, you are not only contributing to an ecosystem, but you are also reducing the need for intensive maintenance that many non-natives would require. So what do you say? Want to create a beautiful garden with plants that are native to you?

### Shopping Plants Native to Your Ecoregion

When shopping for native plants it is important to look for plants that are native to your region. To help guide you in selecting plants native to your region here are some great resources that any native plant gardener can utilize:

### • Plant Virginia Natives Initiative

The Plant Virginia Natives Initiative website has a number of great resources. Their Gardener's Guides are one of our favorite resources to use. The Gardener's Guides are individual field guides created for each of the ecoregions in Virginia. By following the link above you can either order a physical copy or download a free PDF of the Gardener's Guide for your ecoregion. Our very own Dr. Iara Lacher helped author the Ridge and Valley ecoregion guide!







### • Digital Atlas of Virginia Flora

The Digital Atlas of Virginia Flora and Fauna is helpful when researching what plants are native to your county. They have both a list of species that you can find in your county as well as a search engine that allows you to search up a species' scientific or common name and see its native status throughout all the counties in your state!

#### • Flora of Virginia

Flora of Virginia has a phone app with an easy-to-use technical guide to help you identify native plants. Once you download the app there is no need for the internet to access and use the app!

#### • Natural Communities of Virginia

The Natural Communities of Virginia provides descriptions of habitats as well as species that dominate each habitat type. This is a great resource to get to know your local plant community.

#### Ask for help from a professional native plant landscape designer

Of course, if you ever get too lost creating a garden with plants native to your ecoregion you can reach out to a professional like Dr. lara Lacher who can create the perfect landscape design that fits both your ecoregion as well as your aesthetic.





### Catering to Ecoregions: How Seven Bends Nursery Supports the Ridge and Valley Ecoregion

Here at Seven Bends Nursery, we specialize in plants found in our ecoregion, the Ridge and Valley, and the ecoregions of our clientele. We mainly service the northern ridge and valley, northern Piedmont, NOVA area, northeast West Virginia, and southwest Maryland. Therefore, most plants you find at our nursery are native to these areas. We also carry some species that are sourced from local ecoregions.

Remember that many plant species can be found throughout multiple ecoregions and states, so our inventory may suit you even if you reside outside of these areas. If you have any questions about the nativity or source of our plant material, please reach out!

