

Trumpet Vine

Knowledge for the Community From Loudoun County Extension Master Gardeners

Winter 2023-24

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LOUDOUN COUNTY EXTENSION MASTER GARDENER LECTURE SERIES

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LOUDOUN COUNTY MASTER
GARDENERS

Virtual Lectures:

January - Winter Break

February 8, Taming the Wild-How to Use the Four Cuts of Horticulture to Temper Your Garden by Chelsea Ruiz, horticulturist and garden writer

March 7, 7-8 p.m.
Too Many Deer by Bernd
Blossey, chair of the Cornell
Deer Management Committee

April 4, Growing a Better Garden by Jennifer Lumley, Loudoun Wildlife Conservancy

May 02, Managing Trees and Public Spaces for Wildlife by Marne Titchenell, Extension Wildlife Program Specialist, OSU

Check the event calendar on our <u>website</u> for updates on topics and speakers and urls for virtual lectures.
Visit us on Facebook:
VCE Loudoun Master Gardeners

A Snowy Winter?

The past three winters have been very mild. Last winter we had just 0.4 inches of snow. Now the trusty weather forecasters are predicting a harsher winter with above average snowfall. This is largely due to the ongoing El Niño that is characterized by warmer than normal ocean water in the tropical Pacific. How does this affect Northern Virginia? We know that our heaviest snowstorms often come from the south, and El Niños tend to fuel strong storms across the southern United States that sometimes turn up the East Coast. All this is iffy, but we could have several snowstorms in February and March.

The upside is that snow provides good insulation for our plants and soil. When it melts, it slowly sinks into the soil, providing a good deep soaking.

On the downside, heavy snow can do serious damage to our trees and woody plants. Salt used as a deicer and snow melt can damage or kill trees and shrubs.

A good professional pruning is a proactive step you can take to help protect your trees from breaking under heavy snow.

The following sources can help you prevent damage and repair the damage that does happen.

Winter Damage to Landscape Plants:

https://extension.umd.edu/resource/winter-damage-landscape-plants

https://extension.wvu.edu/lawn-gardening-pests/plant-disease/landscape-tree-disease/winter-damage

Salt Damage:

https://www.bartlett.com/blog/deicing-salts-and-trees-dont-mix/

Help Desk: Loudounmg@vt.edu

Have a Gardening Question? Master Gardeners Are STILL Here to Help!

While the In-Person Help Desk at the Loudoun County Extension Office closes with the end of the growing season (open March-November), the Virtual Help Desk (HD) remains open and is surprisingly busy through the winter months, answering almost as many questions as during the active gardening months.

The Virtual HD is accessed year round by the local gardening community through the Loudoun County Master Gardener website (https://loudouncountymastergardeners.org/gardening-advice/help-desk/), where with a few clicks, a client question (and even photos) can be emailed for evaluation. A response is usually returned in a day or so. Master Gardeners staffing the HD share a passion for delving into gardening-related questions. They are trained to evaluate the problem(s); scrutinize research information from university extension, educational, and horticultural sources; and then create a clear, focused response with references.

The emails that the virtual HD receive during the winter months span the gamut of queries seen throughout the rest of the year. Examples of client requests from January 2023 include the following:

Info and MG Requests: Looking for volunteer opportunities in the county. Interest in MG training. Referrals to Speakers Bureau.

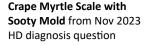
Plant ID: What is this plant with thorns?

Plant Info and Diagnosis: Boxwood with yellow leaves.

Ornamentals and Natives: Interest in a native plant garden.

Small Fruits and Fruit trees: Do my peach trees have a borer and will streptomycin help? When to prune fruit trees.

Vegetables: Squash bugs in pumpkins. Cross pollination issues with yellow and pink watermelons; hot and sweet peppers?



Lawn Info and Diagnosis and Weed ID: Identification and control of HD diagnosis question yard weeds and toxicity to dogs. Weeds growing in winter. Healthy Virginia Lawn sign up.

Tree Info and Diagnosis: How to plant a live Christmas tree. Is the browning of my Cryptomeria normal or damage? Types of trees that hold their leaves in winter.

House Plants: White spots on African violets.

Pest Management Guide (PMG) and Chemicals and Invasives: How to get rid of bamboo. Instructions for removing English ivy.

When answering garden questions, the HD volunteers have a myriad of online resources available to help them research and answer client questions effectively and efficiently.

To date this year, the HD has answered 481 questions, serving Loudoun residents in 38 Zip Codes. Don't forget that a Master Gardener at the Loudoun Extension Help Desk is there to help in the winter months!

Katie Ammann, Loudoun County Extension Master Gardener

Red Twig Dogwood--Winter Fireworks

Creating a landscape that provides interest year-round can be a challenge. Each season features a different shrub, bulb, or herbaceous plant that plays a starring role. Most shrubs provide interesting color, flowers, and/or bark for one or two seasons.

Red twig dogwood (*Cornus sericea*) is a unique shrub that shines in every season, especially winter when it is truly the star of the garden. Its bright red stems provide a pop of color against the grays and browns of a winter landscape. This is the finale to the show it puts on earlier in the year with flat clusters of white lace flowers in mid- to late-spring, followed by bluish-white berries in the summer. Depending on the variety, fall foliage of the red twig dogwood ranges from yellow orange to a purplish red.



Cornus sericea 'Farrow' Arctic Fire'®
Photo courtesy American Meadows.



Cornus sericea 'Flaviramea'
Photo by Pamela McGraw.

Growing Conditions:

Native to most of North America, red twig dogwood is a deciduous shrub featuring multiple, upright stems. It thrives in areas around wetlands but isn't picky and will tolerate drier settings, especially as it matures. When planting new shrubs, make sure to amend the soil with compost or other organic material, with the goal of a slightly acidic pH between 5.5 to 6.5. The red twig dogwood will, however, adapt to other soil types, including clay. The VCE Loudoun office has soil kits available to help identify the specific pH in the planting area.

To ensure beautiful red stems in the winter, it's best to plant the shrub in full sun, although it will tolerate partial shade. When looking for areas in the garden to plant this shrub, make sure to find a space large enough to accommodate it. This is a fast-growing shrub that grows quickly (up to 2 feet per year) and may reach up to 15 feet tall and wide depending on the variety. Red twig dogwood spreads through suckering, which can be somewhat controlled if planted in an area of partial shade.

Pruning for Maximum Color:

Yes, unfortunately the red twig dogwood must be pruned if you are to enjoy a regular display of spectacular red stems in the winter. The newer stems have the most vibrant color. Therefore, every 1 to 3 years it is recommended that approximately one-third of the older stems be cut back to

promote new stem growth. If the shrub is older and has lost much of its winter color, cut back all stems to less than a foot to rejuvenate the plant.

Benefits:

The benefits to planting red twig dogwood are numerous. With its habit of spreading by underground stems, the shrub can be used to control erosion in steep areas, as seen in this photo. Not only does the red twig stand out against the gray of the stone wall and the green groundcover creating an attractive setting, but it keeps the soil in this hilly area from eroding.



Red twig dogwood controlling erosion on a steep embankment. Photo by Jan Lane.

Native wildlife flock to hedges of red twig dogwood. Birds love the shrub for its berries that provide a higher fat content than usual. It is a great addition to a pollinator garden, serving as a host plant for butterfly larvae, specifically the spring azure butterfly (*Celastrina ladon*). The creamy white flowers attract bees as well. The many stems of the shrub create a perfect nesting environment for small birds and mammals.

From a landscape design perspective, red twig dogwood when planted in masses creates an interesting screen to block unwanted views. Make sure to plant these shrubs in an area where they can be viewed and enjoyed from inside. Stems of

red twig dogwood also make beautiful additions to outside containers or floral arrangements-- they can bring a unique element to any design particularly during the holidays.

Notable Varieties:

Red twig dogwood has three primary types: osier dogwood (*Cornus sericea*, syn. *C. stolonifera*); blood twig dogwood (*Cornus sanguinea*); and Tartarian dogwood (*Cornus alba*).

The osier dogwood varieties may have red or yellow branches and green or variegated foliage. This group is native to North America and has several smaller varieties available. Popular varieties include: 'Arctic Fire Red' and 'Arctic Fire Yellow'. When planted together, these make a stunning winter display.

Blood twig dogwoods are native to Europe. The variety 'Magic Flame' features stunning shades of orange and red leaves during the fall and reaches a modest 5 to 6 feet compared to others of the blood twig type.

Tartarian dogwoods are commonly referred to as Siberian dogwoods given that their native range runs from Siberia to Korea. Branches can be red or yellow and have a slightly arching habit compared to the primarily upright form of both the osier and the blood twig dogwoods. The variety 'Argenteo-marginata' is sought after for its variegated foliage and more compact growth.

Pests and Diseases

Fortunately, deer do not consider red twig dogwood tasty--but that doesn't mean that they won't occasionally browse and try a few bites if they're hungry enough. Scale and bagworms may also

find a home on the shrub. Fungal diseases that can occur in the hot and humid Virginia climate include powdery mildew, canker, leaf spot, and leaf and twig blight.

Start planning now to plant red twig dogwood early next spring to get the benefit of year-round interest topped off by a winter fireworks display.

Jan Lane, Loudoun County Extension Master Gardener



Photo courtesy Fairfax County Master Gardeners

Pot Protection Need Not Be Another Fall Gardening Chore

Well, actually, pot protection is not a chore, but rather a labor of love. Who wants to invest in plants for containers only to have them die over the winter months? Of course, I'm talking not about annuals, but the myriad trees, shrubs, and perennials that you may have planted so you are not having to replant their containers each year. I have found that many of these selections fare quite well in pots--both during the warm months and during the cold months--as long as they have good root protection.

This year I was a bit late completing this "service" to my plants, but having done so gives me great peace of mind that I'll enjoy another season of their beauty. Despite the many types of pots we may use, most may require some winter protection to ensure the survival of their contents. Tree, shrub, and perennial plant roots need protection from the freezing-thawing, freezing-thawing cycle for which our Zone 6 is known. This year our early frosts have been followed with warmer days and this is quite likely to recur further into the season. Wrapping containers that are to be left outdoors is their best defense against the elements.

In total I have approximately 30 containers, most of which "cradle" plants that can survive our winter season. This array of plants includes a Japanese red maple, a Ginkgo Biloba tree, various hostas, rhododendron, hydrangeas, clematis, euphorbia, mums, and ferns. Each pot is elevated from the ground or concrete (pot feet or a small paver is ideal) as the case may be, then securely and carefully wrapped in bubble wrap encircling the entire pot twice and extending at least an inch above the pot edge. This wrap is secured with an appropriately sized bungee cord (jute or heavy twine also work well). I find that situating my pots in groups, whenever possible, then blowing loose leaves around them for further insulation bring the best results. Despite the fact that not all of my containers are designed for freezing weather, this protection extends the life of the pots as well. Below are some photos of these containers, soon to have leaves blown around them and then ready for cold temps.





All Photos by Pamela

For larger pots, such as those containing my trees, I leave them in place rather than try to relocate them to a group. Sometimes it is not possible to surround them with leaves, so I often add a layer of burlap. If viewed from the street, this gives a cleaner look to the containers, rather than bubble wrap which is, well, bubble wrap. I have seen some people tie a bow around the burlap to dress them up for the season, something I may consider this year since they sit along the side gate between my front and rear garden areas.

In thinking back over the many years I have been protecting my containers in this manner, I cannot think of even one plant that has not survived. I do recall a thin-walled ceramic pot cracking, simply because the process of its soil expanding and contracting resulted in too much pressure against its walls. If the winter is particularly dry, I will occasionally lightly water the plants, but rarely. The last task I undertake is to apply a light layer of compost to the surface of each plant, followed by a light layer of shredded leaves. Then I offer them a blessing until the warm spring weather returns!

While this may seem like a lot of work, it doesn't take long to wrap a few pots. It's very rewarding to greet new green shoots in early spring. In fact, almost before the daffodils are blooming, my Solomon's Seal is a couple of inches tall. It's a great way to begin the next year of gardening when, once again, nature shows forth its unrivaled beauty!

Pamela McGraw, Loudoun County Extension Master Gardener



There Is No Such Thing as Yard Waste!

Here's what a typical gardener does in a nutshell. <u>Spring</u>: buy and spread mulch around trees and in flower beds, add chemical fertilizer to the lawn and flower beds, and throw the mulch bags in the trash. <u>Summer</u>: weed, mow, and put the weeds and clippings in those big brown bags for pickup. <u>Fall</u>: rake leaves and bag them up for collection.

Where does the yard waste go? In most municipalities, the bags go in the landfill with all the spoiled food, plastic, metal, construction waste, and everything else our disposable society produces. Yard waste accounts for 7% of material in landfills, and food waste is another 24% according to the EPA. When this organic matter decomposes in an environment without oxygen, it produces methane (CH4), which is one of the worst chemicals responsible for global warming. About one-fifth of the landfills tracked by the EPA have systems to capture the methane and use it as fuel, but in most cases the methane goes into the atmosphere. Methane is eighty times more potent than carbon dioxide for causing a rise in global temperatures. Landfills are among the largest sources of methane, along with oil and gas production and livestock.

The Loudoun County landfill collects methane generated from the decomposing waste with a vacuum system and then burns it off. It is looking into ways to use the energy from the methane.

There are ways to reduce the methane generated from yard waste. You can take your yard waste and brush to the landfill, using those brown paper bags. You will pay \$71 a ton (minimum of \$7) to dispose of yard waste. The brush is chipped up into mulch. The yard waste such as leaves, grass, and weeds are ground up and composted. This is used at the landfill to enrich the soil in new grass plantings. The excess mulch and compost are available for pickup on a first-come first-served basis.

Leesburg has a program to pick up yard waste from April through November. It is taken to a Waste Management recycling facility in Sterling. In the fall and through December, the town vacuums up leaves and delivers them to local farms and wineries.

Most smaller municipalities and trash haulers do not have facilities to recycle organic matter. Purcellville says on its website that yard waste goes in the landfill with all other trash.

Let's also consider the fossil fuel energy required to create mulch, transport it to the store and your home, pick up your yard waste, and take it to a composting facility or the landfill.

But there is a better way to take care of your yard waste. In fact, it should not be called waste because it is a powerhouse of material to enrich your soil, fertilize your plants, slow water runoff, create habitat for insects, frogs, toads, turtles, and other animals, and more. You should not keep diseased or invasive plants or plants that have set seeds, but all the rest can be returned to the garden.



Simple leaf bin. Photo by Betty Hedges

In the fall, leaves that have fallen on the grass can be raked into nearby garden beds and under trees. You can make the leaf piles a foot deep, because the rain will pack them down. By spring they will be decaying and adding carbon to the soil. Grass clippings can be left on the grass and in a few days they disappear. If you have a great deal of leaves or grass clippings, they can be piled up in a back corner of the yard and they will decay into great compost to add to garden beds or spread on the lawn. To speed up decomposition, keep the pile moist and turn it every few weeks to allow oxygen into the material. As the pile decays, it will give off carbon dioxide, which is taken up by plants as they grow. You can also make a structure out of wooden pallets or fencing to hold the material. My husband built a simple bin to hold leaves out of a roll of burlap 3 feet by 24 feet tied to fence stakes. It cost about \$40. You can make a pile of small branches to create a habitat for insects, birds, amphibians, and small mammals.

I hope this gives you some ideas on considering better ways to handle the inevitable excess plant matter from your garden and yard.

Betty Hedges, Loudoun County Extension Master Gardener

Why Has My Maple Tree's Trunk Turned Black?

It came to my attention recently that my red maple's trunk had begun to turn black instead of being

the light silvery color it normally should be. Getting closer to inspect the bark, I noticed distinctive horizontal lines of holes drilled into the bark. I identified these as the damage inflicted by a yellow-bellied sap sucker, a common bird in the Northern Virginia area. I had seen other trees with this damage before, and fortunately, it had no lasting effect on the health of the tree. Then why was my maple's trunk turning black?

If a tree trunk turns black, there are two possible causes to consider. The less serious one is sooty mold--most commonly caused by *Capnodium*, *Fumago*, and *Scorias* fungi. Sooty mold is an advantageous fungus that grows in the sugars of the sap that flows from the holes created by the sap suckers and soaks into the bark of the trunk. Sooty mold is usually not a problem for the tree unless it is associated with pests other than sap suckers. Careful observation of your tree will allow you to identify any additional pests, such as aphids or scales, that may need to be addressed.

The more problematic cause of a black trunk on a maple is an infection from the *Steganosporium Ovatum* fungus. The black fruiting spores of this fungus spread as pustules that merge to form a solid black layer over the trunk's surface. This is an opportunistic fungus that is usually an indicator of other issues that have weakened the tree prior to this infection.



Steganosporuium Ovatum fungusPhoto by Cathy Anderson



Infected tree at Morven Park
Photo by Carol Ivory

Steganosporium Ovatum commonly affects red maples, sugar maples, and Norway maples that are already on the decline. Repeated stress on a healthy tree alters the tree's chemistry and can leave it vulnerable to attack from secondary pathogens. Issues that weaken trees are multi-faceted and include drought, pollution, soil compaction due to construction, de-icing salts, girdling roots, and damage from pests and pets.

General symptoms of a maple tree with black bark that is in decline in urban areas are: reduced twig growth in the spring; reduced quantity or smaller leaves on the branches; early fall coloring and drop of foliage; and die back of branches in the upper canopy of the tree. This decline occurs over several years and usually results in tree death. If you notice any of these signs of early decline in your maples, it is important to take action. You may want to consider consulting a certified arborist for a definitive diagnosis.

Is there a cure? After the tree has been found to have *Steganosporium Ovatum*, there is unfortunately no treatment to stop the spread or slow the eventual death of the tree. Keeping your trees healthy is the best defense against this disease. Be sure to water trees during drought or any defoliation event. Evaluate tree health regularly and treat for any pest problems. Properly mulch

and avoid compaction of the soil underneath trees. Keep de-icing salts from tree root systems by developing barriers to help divert the salts away. Regularly prune out dead branches to promote new grow. Being a good tree steward will reduce the chances that your tree might become susceptible to this devastating cause of black trunk.

Cathy Anderson, Loudoun County Extension Master Gardener, Tree Steward



Infected maple at Morven Park Photo by Carol Ivory

The Pinecone

It's the time of year when everywhere you go, inside or out, you are bound to see a pinecone. Whether it has fallen from a tree or is used in winter and holiday decorations, a pinecone serves many purposes.

While pinecones can be used as decorations, for crafts, for mulch, and as food for animals (and even humans), their reason for existence is reproduction.

Pinecone Purpose

Pinecones are found on more than 100 tree species worldwide. They belong to a group of plants called gymnosperms and date back to prehistoric times. Although they are called pinecones, not all cone-producing conifers are pine trees. Pinecones are the reproductive organs of conifer trees and all produce male and female cones. Both male and female cones can exist on the same tree, but they do not always. Male pinecones are small, cylindrical, and produce pollen, while female cones are larger and contain seeds. The pollen grains have winglike structures that carry them to the female cones. The scaly pinecone is the armor that protects the important cargo. These scales keep seeds safe from freezing temperatures, wind, ice, and animals by closing. Pinecones can stay on trees for years developing. When weather conditions are favorable, the cones open, and the seeds disperse. As the seeds are knocked loose, they can be spread via wind, water, and animals to germinate and grow into new trees.



Male Cones With Yellow Pollen
Photo Courtesy of Rocky Mountain National Park
https://www.nps.gov/romo/male_pine_cones.htm.



Pinecone Seeds Photo by Thersa.



Female Pinecones Photo by Thersa.

Pinecones as Food

Ever wonder what happens to all of those fallen pinecones in the forest or in your yard? Pinecones are a source of food for many animals, helping to sustain them through colder weather. While some are just chewing through the hard outer shell to get to the seed or nut, others will eat green pinecones before they dry and harden. Deer, if food sources are scarce, will munch on the hardened scales. Insects, squirrels, mice, voles, chipmunks, raccoons, woodpeckers, and other birds all look to pinecones for food. Even bears will take advantage of the seeds stockpiled away by squirrels.



Pine Tree at Blandy Experimental Farm Photo by Thersa.

The delicious seeds of some pine trees are not just for animals. The most common way for humans to partake of the pinecone is via the pine seed. Although seeds, they are classified by the FDA as tree nuts. You may have eaten pine "nuts" also known as pinoli. Pine nuts are a good source of thiamine, Vitamin K, magnesium, and protein. They are also one of the best natural sources for manganese, phosphorus, and zinc. Only 20 varieties of pine trees worldwide produce cones with large enough pine nuts for harvesting.

Most of the pine nuts harvested for human consumption come from the Stone Pine or Pinyon Pine. Pine "nuts" are expensive and consumed less than most other tree nuts due to the labor-intensive process to harvest them. It can take a tree 15 to 20 years to produce these edibles.

Pinecones as Mulch

Although not as popular as pine bark or pine needles for mulch, pinecones can also be used. Like many other options for mulch, pinecone mulch has advantages and disadvantages. Mulch can be expensive, so using a natural option that you have available may be a good solution. You can use them whole or in pieces. Pinecones can protect your plants from the elements and the ground from erosion. Whole, their structure encourages air circulation and releases water droplets into the soil. However, pinecones do not provide fertilization that you will get from some decomposing mulches and compost. Like pine needles, they may be a good solution for acid-loving plants like blueberries or hydrangeas. They are resistant to mold and fungus and will repel some insects. Dogs and cats typically will not walk on the whole cones, which may help protect plants from being trampled and being dug up. Pinecones are slow to decay. If you are placing them in a composter, you will want to shred or chip them first.

Pinecones as Symbols and Decoration

Pinecones have been used by humans for thousands of years as spiritual symbols and to invoke meaning with their presence in our lives and homes. Imagery dating back more than 3,000 years to the Mesopotamian region show the cone being used as part of a purification rite. In Greek mythology, a pinecone sat atop Dionysus staff, and ancient Romans associated pinecones with Venus, the goddess of love and fertility. The pineal gland in our brains--often referred to as "the third eye"--is described in literature as being shaped like a pinecone.

Over time, pinecones have become one of the most popular items in holiday and seasonal decorations. The cones that we see and the ones we repurpose are the larger, female cones. They are used on wreaths, with garlands, as centerpieces, as ornaments, and are a favorite component of many craft projects. Whether they are the focal point or an accessory, they can be used with any décor simple or fancy.





Pinecone DIY Craft Examples Photos by Thersa.

If you plan to save pinecones that have been collected outdoors, you will want to be sure to process them properly to rid them of bugs and to ensure that they last longer. You can soak them in a vinegar and water solution or in water with a mild dish soap. Once wet, you will see that the cones close up. Not to worry; once the pinecones dry and warm they will open again. This process can take some time if done naturally, but placing them in a warm oven after air drying speeds up the reopening. This can be a great learning activity for children as well. As the cones are dried, they will release any remaining seeds.

Thersa Hutton-Sherman, Loudoun County Extension Master Gardener

What's in a (Botanical) Name?

Scientists classify all living organisms into groups, and Latin is the international language used to name plants and animals, which ensures that we know we are all talking about the same thing anywhere in the world. Plant classifications include class, order, family, genus, and species. Carolus Linnaeus, a Swedish botanist, created what is known as the Linnaean system of binomial nomenclature, which focuses on the last two categories, giving each plant and animal species a Latin genus name followed by a species (specific) name.

Some readers may have taken Latin language classes in school--and if so, you are likely way ahead of me--but Latin was not offered at my public high school in rural New Jersey in the 1980s. Like many gardeners, I knew some botanical names, but I was surprised to learn that the Latin words they contain often describe key features of a plant. Some species names reference people, often the collector; however, this article focuses on those describing plant characteristics, e.g., habitat, geography, appearance, color, or other descriptors. Full disclosure: I still can't pronounce most Latin words, but I am slowly learning. (Note: The Missouri Botanical Garden has helpful audio clips pronouncing plant names.)

These insights are useful to help plant the right plant in the right place and inform garden design. Some common names give similar hints, but they vary widely so we cannot always rely on them.

Habitat

Species names with these words tell us where the plant is found in nature, which provides useful insights into where it will likely be happiest in your garden:

Sylvestris, **sylvaticus** – "of the woods": *Nyssa sylvatica* (tupelo), *Pinus sylvestris* (Scotch pine), *Tulipa sylvestris* (woodland tulip), *Malva sylvestris* (common mallow).



Tulipa sylvestris
Photo from Wikimedia commons Bjorn S.

Palustris - "swamps": *Caltha palustris* (marsh marigold), *Quercus palustris* (pin oak), *Rosa palustris* (swamp rose).



Caltha palustrisPhoto by Courtney Celley-USFWS.

Pratensis - "in meadows": *Tragopogon pratensis* (Jack-go-to-bed-at-noon), *Cardamine pratensis* (cuckoo flower), *Festuca pratensis* (meadow fescue), *Poa pratensis* (Kentucky bluegrass).



Cardamine pratensisPublic domain photo by <u>Wildlife Terry.</u>

Geography

These species names give you a hint as to where this grows or was first collected, which can also give a sense as to whether it is likely to thrive in your Northern Virginia garden.

Virginianus - "Virginia" - Virginia native plants: *Claytonia virginica* (spring beauty), *Mertensia virginica* (Virginia bluebells), *Itea virginica* (sweetspire), *Physostegia virginiana* (obedient plant), *Chionanthus virginicus* (fringe tree), *Chrysogonum virginicum* (Green and Gold).



Mertensia virginica Photo by Barbara DeRosa-Joynt.



Physostegia virginiana Photo by Jim Hudgins-USFWS.

Canadensis - "Canada" and/or "North America" - plants native to Canada and/or North America: *Cercis canadensis (*Eastern redbud), *Sanguinaria canadensis* (bloodroot), *Aquilegia canadensis* (Eastern red columbine), *Asarum canadense* (wild ginger), *Amelanchier canadensis* (Canada serviceberry).



Aquilegia canadensis Photo by Courtney Celley-USFWS.



Sanguinaria canadensis Photo by Mara Koenig-USFWS.

Occidentalis – "Western (New World)" – North American native plants: *Cephalanthus occidentalis* (buttonbush), *Celtis occidentalis* (hackberry), *Helianthus occidentalis* (western sunflower).



Cephalanthus occidentalisPhoto by Barbara DeRosa-Joynt.

Appearance

Species names can tell you about a plant's looks or behavior, which can help with your design.

Repens/reptans - "creeping/prostrate": *Mitchella repens* (partridge berry), *Polemonium reptans* (Jacob's ladder), *Trifolium repens* (white clover), *Ajuga reptans* (bugleweed).



Polemonium repensPhoto by Carol Ivory.



Trifolium repensPhoto by Barbars DeRosa-Joynt.

Pubescens - "downy hair surface" tells you its leaves and/or stems have hairs: *Goodyera pubescens* (downy rattlesnake plantain), *Stellaria pubera* (star chickweed), *Viola pubescens* (downy yellow violet), *Coreopsis pubescens* (tickseed).



Goodyera pubescens
Wikimedia commons photo by
Joshua Mayer.



Stellaria puberaWikimedia commons photo by Ivy
Main.

Tuberose - "knobby" (a reference to the root structure): *Asclepias tuberosa* (butterfly weed), *Helianthus tuberosus* (Jerusalem artichoke), *Polianthes tuberosa* (tuberose).



Asclepias tuberosaPhoto by Mara Koenig-USFWS.

Color

These names indicate the color of flowers and/or other plant parts, which is useful to garden design.

Albus - "white": *Ipomoea alba* (moonflower), *Quercus alba* (white oak), *Gentiana alba* (gentian), *Spiraea alba* (meadowsweet), *Symphoricarpos albus* (snowberry), *Dictamnus albus* (dittany).



Ipomoea alba Wikimedia commons photo by Jebulon.

Aureus - "golden": *Zizia aurea* (golden alexander), *Packera aurea* (golden ragwort), *Bidens aurea* (beggar's ticks).



Zizia aureaPhoto by Barbara De Rosa-Joynt.



Packera aurea
Photo by Barbara De Rosa-

Sanguineus - "blood-red": *Heuchera sanguinea* (alumroot), *Ribes sanguineum* (flowering currant), *Rumex sanguineus* (bloody dock).



Heuchera sanguinea Wikimedia commons photo by Neelix.

Nigra - "black": Betula nigra (river birch), Juglans nigra (black walnut), Quercus nigra (water oak), Salix nigra (black willow), Sambucus nigra (European elder).



Quercus nigraPhoto courtesy of USDA.

Viridis - "green": *Crataegus viridis* (green hawthorn), Asclepias viridis (green milkweed), *Setaria viridis* (green foxtail).



Asclepias viridis Wikimedia commons photo by Sonnia Hill.

Other descriptors

Vernus - "spring" indicates early blooming plants: *Crocus vernus* (Dutch crocus); *Erigeron vernus* (whitetop fleabane), *Lathyrus vernus* (spring pea).



Crocus vernusPhoto by Carol Ivory.

Rugosus - "wrinkled": *Solidago rugosa* (rough goldenrod), *Alcea rugosa* (hollyhocks), *Agastache rugosa* (blue licorice plant).



Alcea rugosa Wikimedia commons photo by Agnieszka Kwiecień.

Setaceus - "bristle-like": *Asparagus setaceus* (asparagus fern), *Pennisetum setaceum* (crimson fountain grass), *Tillandsia setacea* (Southern needle-leaf).



Pennisetum setaceumWikimedia commons photo by Lazaregagnidze.

Spectabilis - "handsome and/or showy" tells you those naming it appreciated its looks: *Eragrostis spectabilis* (purple lovegrass), *Osmunda spectabilis* (royal fern), *Eurybia spectabilis* (showy aster), *Dicentra spectabilis* (bleeding heart), *Bougainvillea spectabilis* (great bougainvillea).



Dicentra spectabilis Wikimedia commons photo by Wuzur.



Bougainvillea spectabilisWikimedia commons photo by Forest
& Kim Starr.

Barbara De Rosa-Joynt, Loudoun County Extension Master Gardener

Herb Gardens

It may be wintery and snowy outside your window now, but it won't be long until it's warm and green again. It's time to start thinking about what you want to grow in your garden next season. Are you new to gardening? Most herbs grow easily in a variety of conditions so they are perfect for novice gardeners. Is your schedule busy and hectic with no time to plant and maintain a big vegetable garden? An herb garden would be perfect! Herb plants are low maintenance and can be harvested quickly after planting them. They don't need a lot of sunlight or nutrients to grow (although they do love a sunny location) and they don't need a lot of space—herbs can grow in a window box or flowerpot on your deck just as well as in a large garden or raised bed. Many herbs are perennials so they come back year after year, which makes great use of your gardening space.

You can use the herbs you grow to enhance tonight's dinner or to brew a relaxing cup of tea. The fresh greenery and fragrance are natural mood boosters and stress relievers. Many herbs are grown for their leaves but some, like echinacea, calendula, chamomile, and marigolds, are grown for their flowers, and others, like coriander, are grown for their seeds. Plant some of the old favorites like basil, parsley, oregano, and/or thyme, but also try some herbs that you might be less familiar with such as Mexican mint marigolds (Spanish tarragon), an ancient herb that has many uses and makes a lovely, sweet herbal tea. The plant has beautiful little yellow flowers, and the leaves have a sweet, licorice flavor. The key to a successful herb garden is to "learn first, buy last." Find out what plant family the herbs you want to grow belong to and create a space that will make them feel at home. Learning first and buying last will save you money and frustration.

Most of the popular herbs fit into four different plant families.

Lamiaceae (Mint) Plant Family. Herbs in this family are mostly perennials and include anise hyssop, basil (in our area, basil is an annual, but it can actually survive for several seasons in the right climate), lavender, lemon balm, marjoram, mint, oregano, rosemary, sage, thyme, and summer and winter savory. Most of these herbs originated in Mediterranean-type climates and they prefer drier conditions—don't overwater them. They have shallow roots so they are ideal for growing in containers and window boxes. And the more you harvest the more they will produce. You can't start an herb garden without at least a few of these favorite herbs. In moderate climates they continue to grow year-round and can actually become bushes or small trees like bay laurel. In this area because of our frost and snow, they will grow to a height of about one foot before going dormant in the cold weather.

Apiaceae (Umbellifer or Carrot Family). Some of the most common kitchen herbs are in this family—cilantro, cumin, dill, fennel, and parsley. Like carrots, they have a large taproot so be sure to give them at least a foot of soil in which to grow. They prefer cooler weather and more moisture in the soil. When they go to seed as the weather warms up, their flowers will attract all the butterflies in the neighborhood. Most herbs in this family are annuals. Because of our cold winters, basil is also considered an annual in this area. Parsley is a biannual.

<u>Daisy Family</u>. Most of the herbs in the daisy family are flowering herbs and include chamomile, calendula, echinacea, feverfew, dandelions, and marigolds. The flowers from these herbs are edible and have long been used in teas and medicines. If you're looking to harvest these flowers, though, you'll have to wait a while because the flowers appear near the end of a plant's life cycle.

<u>Amaryllidaceae (Onion) Family</u>. Chives belong to this family, although some do not consider chives an herb. The herbs in this family are used to flavor food. They are easy to care for and like the same growing conditions as herbs in the mint family. The plants are perennials and come back every spring with lovely blossoms.

Getting Started

What you will need: herb plants or seeds of your choosing; pots or containers with protective liners (or a raised bed or dedicated garden area); potting soil; a trowel; plant markers to identify what you're growing; and a grow light for starting your seeds indoors. When deciding what herbs you want to grow, consider your space. How large is it? How much sun does it get? A location that gets three to six hours of morning sunlight is ideal. When you're designing your herb garden, remember that it should be easy to access—you want to be able to reach the herbs. If your plot is wide, use stepping stones to access the herbs in the center of the garden. Round or oval-shaped gardens let you walk around or through them, and triangular-shaped gardens are good in a corner of your garden. Choose a space that is not overrun with tree roots or clay soil if you're planning to plant your herbs in the ground. Once you've chosen your location, in the early spring (February to early March) get a soil test from Virginia Tech. Forms are available at the Virginia Cooperative Extension Office on Miller Drive in Leesburg. The soil test will tell you if you need to amend your soil and what amendments you will need. In mid-to-late March, start preparing your garden area by cleaning out the weeds and other detritus. Loosen the soil, add the amendments recommended by Virginia Tech and some compost, and work them into the soil. When the danger of frost has passed, plant your seeds or seedlings in the garden. The average last frost date in Loudoun County is mid-May, around Mother's Day.

Choose Your Plants

When trying to decide what herbs to plant, think about what you want from your herb garden. Do you like to cook and try new recipes? If you do, plant classic culinary herbs such as basil, sage, oregano, parsley, thyme, dill, marjoram, and cilantro. Are you into crafts and making sachets and wreaths? Add some lavender to your garden. And if you have kitties, they love fresh catnip. (I can tell you from experience, though, that you will attract all the neighborhood cats if you plant catnip outside!) If you decide to plant anything from the mint family (such as lemon balm), just plant it, pot and all, in the ground to keep the roots contained. Otherwise, it will take over your garden space.

FREQUENTLY ASKED QUESTIONS

1. WHAT TYPE OF CONTAINER IS BEST FOR GROWING HERBS? Most herbs are smaller plants with shallow root systems. The container you choose should be at least six inches deep, but a container that is a foot deep is better for plants with a large taproot such as parsley and cilantro. Herbs can be grown in individual pots, but you will have to monitor the soil's moisture more closely than if you mix several herbs together in one larger pot. Choose a pot at least a foot wide if you want to mix several different herbs together in one container. Terra cotta pots help regulate the moisture level and usually come with a large drainage hole. They are natural looking and attractive and not too expensive. Before filling the container with soil, consider putting a landscape cloth or weed barrier cloth in the bottom to keep soil from leaving the pot through the drainage hole every time you water.

2. WHAT IS THE BEST SOIL MIX FOR GROWING HERBS? Herbs need (and love) well-draining soil. Mix coarse sand like paver sand into your soil to improve drainage. You can find paver sand in the construction section of Home Depot or Lowe's. Fill the container almost to the top with equal parts topsoil, compost, and sand, and use your hands or a small tool like a hori hori (soil knife) to mix it together. The result is a light soil that provides structure for the roots to grow in and food to keep them strong and healthy. For an extra boost of nutrients, sprinkle a layer of earthworm casings on top of the soil mixture and mix them in with a hand rake or hori hori.

- 3. WHAT HERBS CAN BE PLANTED TOGETHER? If you're planning to plant different herbs together in one container, the most important consideration is their water needs. In general, plant herbs that like moist soil in the middle of the container and those that like a less moist soil near the edges where the soil dries out faster. You might think twice about planting mint, anise hyssop, and lemon balm with other herbs because these plants spread out and can take over your space. Dill, parsley, and cilantro are perfect to grow together because they have the same water and temperature preferences. Basil can also be grown with this group of herbs because it likes a consistently moist soil. Woody herbs such as rosemary, oregano, marjoram, lavender, sage, and thyme like dry soil so they are good combination to plant together.
- 4. HOW CLOSE SHOULD HERBS BE PLANTED? Herbs like rosemary and sage should be grown no closer together than two plants per square foot. Cilantro, parsley, and dill, which grow taller than wider, can be planted four to six plants per square foot. Flowering herbs can be grown one or two plants per square foot. The closer together you plant your herbs, the more often you will have to harvest the leaves to ensure that each plant has access to the sunlight and air circulation that it needs.
- 5. HOW MUCH SUNLIGHT DO HERBS NEED? Herbs like the sun. Although they will grow well in low light conditions, they will produce more leaves when grown in a location that gets four to six hours of sunlight a day. Rosemary, oregano, and basil require the most sunshine hours to thrive, so prioritize sunlight when considering where to plant them. Sage, thyme, and mint will grow well in a part-sun environment, and dill, cilantro, parsley, chives, and flowering herbs need only four hours or so of sun and can be grown in part-shade areas.
- 6. WHAT IS THE BEST TIME OF YEAR TO GROW HERBS? Herbs in the mint family—especially basil--love long, warm summer days. Basil will die at the first sign of wintery weather. Most of its cousins are a little more cold-hardy and can survive below freezing temperatures for a short time. In the end, though, herbs that are annuals will only last for one season; once cold weather sets in for good, they will die and you will have to replace them in the spring. Herbs in the mint family will also grow well indoors in a sunny window, preferably one facing south. Herbs moved indoors for the winter will continue to produce leaves, just not as many as when they were outside. In the spring, move them back outdoors. Perennial herbs will die back in the fall but will send up new growth in the spring. Cilantro, parsley, and dill love cooler weather so they grow best in your garden in the spring and fall. You can, however, plant the seeds as soon as the soil is workable even if there is still a chance of frost. Once the weather turns hot, they will bolt and form flowers. Most flowering herbs also like the

cooler weather of spring and fall but will grow well in warmer summer temperatures as well. They won't survive a hard frost though in late fall or winter.

- 7. GROW FROM SEEDS OR PROPAGATION? Annual herbs have tender roots that can be damaged by transplanting so it's best to plant them directly into the soil in your garden or raised bed. Herbs to start by seed directly planted in the garden include dill, cilantro, and parsley. Herbs that aren't as sensitive and can be started from seed indoors under grow lights (or in a sunny window) include marigolds, calendula, chamomile, and basil. Move them to the garden when the weather warms up. Flowering herbs germinate quickly and the seeds should be started indoors about 45 days before the last frost for your area. Or, wait until the last frost date has passed and the weather has warmed and plant the seeds directly into the ground. The propagation process works well for herbs in the mint family—African blue basil, rosemary, mint, oregano, sage, and thyme. Ask friends, family, and neighbors if you can snip small cuttings from their plants. Put the cuttings in some water and in the spring plant them in the ground. Most gardeners are happy to share, and the best thing about propagation is that your plants are free!
- 8. SHOULD YOU BUY YOUR HERB PLANTS FROM THE NURSERY? Some herbs are just best to buy from a nursery or local grower. These herbs include oregano, rosemary, thyme, sage, chamomile, calendula, and chives. This is, of course, more expensive than starting plants from seeds or propagation but in the end they will last longer in your garden and make up for your investment. You should avoid buying your herb plants (or any plants for that matter) from big box stores like Walmart and Home Depot. Chances are that they have traveled a long distance before reaching the store and have most likely been treated with fungicides or synthetic fertilizers so they look great in the store. If you don't treat them with the same fungicides and fertilizers after you plant them in your garden, they very well may just sit there and not grow or give up altogether. Basil is the easiest herb to grow from seed but if you elect to buy basil plants from the store, know that growers often over-seed the pots so you are actually getting ten or more little plants to make the pot look fuller and more inviting to the buyer. If you're careful you can very gently separate the individual plants and repot them so they each have enough room to grow into mature basil plants. And you get ten plants for the price of one!
- 9. WATERING, FERTILIZING, HARVESTING, AND BEYOND. Water your herb garden consistently, but let the soil dry out between waterings. An inch of water a week is about right. Parsley, dill, cilantro, and the flowering herbs like a little more water as long as their containers have good drainage. If you grow your herbs in soil rich in organic matter, they won't need much fertilizing to keep them happy. If you want to boost a plant's leaf growth, add a fertilizer high in nitrogen. Regularly prune the outer and lower leaves of your herb plants to encourage more leaf production. Start by cutting from the outermost branches and work your way in.

If you're growing your herbs in small pots and containers, you can over-winter them indoors. If you're replanting a favorite herb container in the spring, there's no need to replace all the soil in the container. Pull out the old and spent herbs. Chives often return from their roots in the spring and cilantro will re-seed itself. If the parsley looks healthy, keep it because it's a biennial. Rake the top of the garden space to clear away last fall's leaf debris, add one or

two inches of compost, rake it in, and your garden and containers are ready to go for another season.

There are two ways to preserve your herbs. Rosemary, sage, and other herbs with thick leaves can be frozen whole or chopped. The cold causes thin-leafed herbs like basil to blacken so mix them with oil or freeze them as a pesto. You can also dry your harvested herbs. Air drying is the best way to dry your herbs. Hang them upside down in a cool, dry place (like your garage) until they are crumbly. Drying them in direct sunlight makes them fade and lose flavor. You can also use a dehydrator to dry your herbs. Stripping the leaves from the stems will speed up the drying process. To avoid mold, make sure the herbs are crispy dry and that they crumble easily before you store them in airtight containers.

Herbs are an essential part of any garden. Not only can they be used in cooking, teas, cocktails, or herbal remedies, they have beautiful leaves and flowers that are attractive to pollinators. Growing your own herbs either from seeds or ready-to-plant seedlings is much more economical than buying the packets of fresh cut herbs sold in grocery stores—you can cut them as you need them so they are always fresh.

HAPPY GARDENING!

Jayne Collins, Loudoun County Extension Master Gardener

All photos by Jayne Collins



Hori hori or soil knife



Indian mint



Feverfew

How Do We Know If a Plant Is Attractive to Pollinators?

A few days ago, I received an email from a seed company trying to sell me a plant said to be "extremely pollinator friendly." I also received a 2024 seed catalog from a large national seed company highlighting offerings said to "attract beneficial insects." Another company's catalog offered selections said to be "pollinator attractors." A fourth company labeled specific plants as "beneficial for pollinators" and "attracts butterflies." A fifth company offered to sell me a "pollinator garden."

The growing commercial interest in pollinator signage comes in response to consumer demand for these offerings. With time, the breadth and detail of these labels are expanding. We see more catalogs marking plants as attractive to bumble bees, friendly to specialist bees, or attractive to butterflies or moths--even to specific butterfly species. This may be an improvement on the generic "pollinator friendly" title. However, the application of this terminology is inconsistent. And substantial uncertainty remains about the source and reliability of these designations.

In a recent review of methods for measuring plant attractiveness to pollinators, Erikson et al., (2022) note that no commercial flower trials include assessments of pollinator attraction. These trials commonly score plants for bloom size and duration, temperature tolerance, and general appearance. But not for visitations by pollinators.

In a related study of ornamental plants on sale at garden centers (Garbuzov et al., 2017) found that most varieties on offer are unattractive to pollinators. More worrying, many varieties labeled as attractive to pollinators were not, and some of those left unlabeled were attractive.

Another review of lists of plants attracting pollinators found that these lists often "included poor recommendations, lacked detail, omitted good plants, and were commonly based on their author's general expertise rather than empirical data" (Garbuzov and Ratnieks, 2014).

What should we believe?

Scientific research on plant-pollinator relationships is expanding. But the methods employed in this research remain varied. One set of efforts involves counting the number and type of insects visiting plots of diverse cultivars within a species during the primary bloom period. For example, in 2018 and 2019, Mt. Cuba investigators observed one plant in each of 75 *Echinacea* accessions for one minute during the main flowering period on a "near daily basis" to count the number of bees, wasps, or butterflies visiting (Hoadley, 2020). These counts were averaged over the two-year period, and each accession was then ranked for insect visits.

In a British study (Garbuzov and Ratnieks, 2015) researchers counted the insects visiting individual flowers of 228 varieties of aster distributed across almost 300 diverse patches of public garden space. In this case, the counts were "near-instantaneous" views (i.e., less than one minute) approximately once per hour over a two-day period of peak bloom.

In a set of Pennsylvania State University flower trials, Erickson et al., (2022) experimented with the monitoring of specific cultivars for up to 30 minutes when each plant was in peak bloom during the mid-to-late summer months. Data were collected on total insect visitor abundance, and the

identity of the primary taxa of insect attracted. Each cultivar was visited twice in the morning, around midday, and in the early afternoon for a total of six unique visits.

The Xerces Society for Invertebrate Conservation (Cruz et al., 2019) promotes use of a protocol with two alternative monitoring methods: i.) timed observations of floral visitors along a walked transect and ii.) the use of a sweep-net (or beat sheet) to collect and record insects found on the vegetative parts of plants along a transect.

One important finding from these diverse studies is the fact that pollinator attractiveness differs substantially across varieties and cultivars within a species. In the Mt. Cuba studies cited above, 13 of the 75 accessions of Echinacea had more than 60 pollinator visits, while 31 accessions had fewer than 30 visits (Hoadley, 2020). A similar study of native hydrangea found that 10 of 29 taxa had 100 or more pollinator visits whereas 13 had fewer than 50 (Hoadley, 2021). The British aster study cited above found that aster varieties varied in insect attractiveness from 0.0 to 15.2 per square meter count and were highly skewed--with most aster cultivars being unattractive to insects.

A second complementary area of research considers the importance of flower characteristics for attracting insects. For example, Bauer et al., (2017) set up hives encompassing three species of bees near two alfalfa research sites over a two-year period to test the influence of flower size and color on pollinator visits. These researchers then counted the number of bees visiting different types of flowers and found bees to be more attracted to flower size than color.

A website published by USDA (2023) generically lists the attractiveness of flower traits such as flower color, flower shape, odor, nectar quantities, and the presence of nectar guides to different types of pollinators (e.g., bees, butterflies, moths, flies, beetles, bats, and birds). It is unclear, however, how the data underlying these relations were collected and analyzed.

In a recent related study, researchers evaluated the range of pollen collected by bumble bees and honeybees visiting blueberry fields (Graham et al., 2023) and found that bee visits to the blueberry flowers were correlated with the types of pollen available in the surrounding environment. While blueberries were the most abundant source of pollen, both types of bees collected larger quantities of pollen from surrounding environments. One conclusion was that blueberry patches situated in herbaceous wetland environments received higher rates of pollination.

Overall, high quality plant attractiveness studies are time consuming and expensive. Assessments of multiple insect pollinators require a minimum level of expertise in insect identification. And much depends on the nature of the environment where trials are being conducted. Pollinator populations and plant visits depend on local temperatures, wind speed, humidity, and sunlight as well as the size and strength of flower bloom. Insect populations are influenced by the severity of the preceding winter as well as weather patterns during the peak bloom period.

Insect populations are also influenced by the species of complementary plants in the surrounding environment. Insects depend on multiple pollen sources. As a result, specific cultivars perform differently when grown in different environments (e.g., Erickson et al., 2020). Trials in Mt. Cuba probably attract a larger number and different array of pollinators than if these were run in my own backyard.

And results depend on what specific insects are being tracked. Some insects need longer flowering periods of favored plants; others seem to prefer flowering at a particular point in their reproductive cycle.

And insect populations depend not simply on the availability of flower nectar and pollen, but also on the attractiveness of leaves and stems for insect larvae and/or insect nesting.

Finally, while native plants are commonly assumed to be more pollinator friendly because they have co-evolved with birds and insects in any given environment, there remains substantial diversity on pollinator attractiveness across native plants. Some natives are highly attractive to pollinators, while others are not. And many exotics have been well documented to be highly attractive to local pollinators (e.g., the B. davidii, which originates in China). Staab et al., (2020) argues that exotic species are important additions to urban gardens to support pollinators when native plant flowering is limited.

In sum, the analysis of plant attractiveness to pollinators, and particularly to insects, is an evolving area of investigation. There is a need for broader adoption of stricter methods of measurement of pollinator attractiveness. This probably includes the need for more multivariate analysis. And there is need for the adoption of more consistent, common terminology.

In the meantime, let the buyer beware. Clearly some varieties are more attractive to pollinators than others--even within the same species. Plant catalogs and plant selection lists may offer a clue aiding the selection of plants attracting pollinators. But much still depends on the position of the plant in its wider environment. Avoid the use of pesticides. Aim for a diversity of plants offering a wide range of bloom times, food, and nesting habitats. This may include the use of native plants and exotics. Beyond this, we may each benefit through closer observation of the diversity of pollinators across years in our own home gardens.

David Rohrbach, Loudoun County Extension Master Gardener

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An "Extra Special" Plant for Your Home—The Triostar Stromanthe



Photos simply do not do justice to this beautiful plant!

The Triostar stromanthe (*Stromanthe sanguinea*) features impressive, fully varigated leaves of deep green with cream edges and an underbelly of pinkish rose. Understanding and meeting this unique plant's specific needs will help you successfully lead it along its journey, and the effort is well worth it. I purchased this plant without knowing exactly what it needed, so our relationship had a rough start--meaning, there were many times that I almost tossed it onto the compost pile! But, at this stage of its life (and mine), I'm surely glad I did not. Growing houseplants indoors requires patience--then more patience. It also requires you to search for answers when a plant begins to decline or "pout." The native home for most houseplants, including Triostar, is the tropics, and our indoor environments fall quite short of providing those ideal conditions--high humidity, year-round warm temperatures, and just the right amount of moisture and natural fertilizer.

Nevertheless, growing the triostar stromantheis not difficult if you keep in mind the following:

<u>Light:</u> Similar to its natural environment, triostar prefers bright but dappled light. The north-northeast exposure it now enjoys in my home seems ideal. Too much light and its leaves brown around the edges; too little light and leaf color fades. Direct sun can actually burn its leaves. It is also a good practice to occassionally dust the leaves, ensuring maximum photosynthesis.

<u>Soil:</u> Like most houseplants, the soil must be friable, well-draining, and light. It also needs to be moisture retentive but not heavy. Typically a good grade potting mix—perhaps with a bit of perlite added—will work well.

<u>Water</u>: The triostar stromanthe requires consistent watering. Keeping the soil lightly moist but not waterlogged is preferable. Less watering is required in cooler months. I water when the top inch of soil has dried out, usually weekly. This plant can sometimes be picky about tap water, so I usually set my filled watering can out overnight before watering to allow time for minerals to weaken and disburse somewhat.

<u>Fertilization</u>: Regular monthly fertilization at half strength of label instructions seems just enough to keep this plant thriving. If you use more, it tends to develop crispy leaves and can lead to root burn.

<u>Propagation</u>: Stem cuttings will be unsuccessful, but it is possible to separate some of the clumps of roots from the main plant. I have not given this a try as this plant is a rather slow grower. Consequently, repotting is rarely needed except when roots come out of the bottom of the container. Repotting is best done in the spring.

<u>Pests</u>: The triostar may, on occasion, be susceptible to aphids or spider mites if humidity is very low. Neem oil applied according to label instructions should easily address such an infestation. In the six years I've had mine, the plant has not experienced any pest or disease problems.

<u>Humidity</u>: The triostar stromanthe prefers a location with higher humidity than our homes typically provide. Filling its drainage tray with pebbles and allowing the water to stand will suffice to keep it happy.

Under ideal conditions this plant can produce white or pink blossoms, although it rarely will as a houseplant. Mine has never bloomed, but perhaps this year—between March and April—it will surprise me! The final feature that sets the triostar apart is its leaf movement. A member of the prayer plant family, the leaves move with the light throughout the day—literally reaching for the sky and closing up as the light fades. This very unique plant is nontoxic to both people and pets. It is best to purchase triostar stromanthe from a reputable greenhouse and if you give it a try, I think you'll be glad you did.



Pamela McGraw, Loudoun County Extension Master Gardener

Some Options for Your First Vegetable Garden

Vegetable gardening has been increasing in popularity as both a rewarding and a cost-reducing adventure. If you've never grown vegetables, this spring might be a great time to join the fun and experience the joy of harvesting the fruits of your effort.

Depending on the growing options you have available in terms of space, light, and time, you may choose to limit your plantings to a few pots on a windowsill or to some containers on a patio or deck, or you can plant in beds in your yard. This article explores these three alternatives and suggests a few varieties of vegetables that will ensure a decent harvest for any beginning gardener.

Seeds or Seedlings?

Options for getting started include growing from seed or purchasing plants from the local garden center. If planting from seed, it is a good idea to use seed-starting soil. This specialized soil has been sterilized and will help you be more successful than if you used potting soil because it will reduce the likelihood of growing mold and damping off of seedlings. Once seedlings have a few leaves, they can be transplanted into potting soil that contains more nutrients for the growing plants. Growing from seed can be more difficult than purchasing seedlings, and package directions should be followed for the best success.

Pots on a Windowsill

If space and time limitations exist, a few pots in a sunny window can create a small home garden of salad greens and herbs for cooking. Be sure to select pots or containers with drainage holes and place a saucer under them to collect any water that might escape. Purchase good quality potting soil from a garden center or other source because outdoor soil may be too dense or contain undesirable insects (eggs or larvae) not wanted inside the home. Potting soil will provide the necessary nutrients and drainage needed to grow successful indoor plants.

Several herbs will do well on a windowsill. Basil and parsley are two that are easy to locate at a local garden center and can be potted up attractively. They will need full sun, and each has slightly different requirements for water and nutrients. Avoid purchasing herbs on display in the grocery aisle as they are usually intended to be used quickly and their soil often lacks the structure to sustain the plants for a longer term.

Basil is quick and easily grown from seeds, and will germinate in a few days if soil is kept moist (cover with a little cling wrap or a plastic bag during germination for best results). Follow directions on the seed packet, or purchase a plant from your local garden center. Basil plants like full sun and quite a bit of water. Monitor them carefully during the heat of the summer as their tender leaves are subject to burning.

Parsley does well when grown in a sunny window. Seeds germinate more slowly than basil seeds, but the plant can be grown following the directions on the seed packet. For best results a windowsill gardener may want to purchase parsley plants, because when grown from seed entirely on a windowsill, the plant tends to get leggy. For attractive, bushy plants, purchasing the plant may be the better option.

Lettuce plants may be grown in small pots, or in a window box, and they do well enough on a windowsill. The leaves should be harvested as "baby" lettuce, and care must be taken to keep the plants from drying out. These can be grown from seed or purchased as plants. Although it may be difficult to grow enough lettuce for a large salad, you can still enjoy some fresh lettuce from your windowsill garden in your salads.

Additional Resources for Container Gardening on Windowsills

<u>Growing Vegetables on Windowsills</u> video Birmingham Public Health.

Container Garden on a Patio or Balcony

Container gardens are very popular, and there are vegetables specifically designed for growth in planters. Popular items include cherry or grape tomatoes, herbs, lettuce, and bush cucumbers.

Gardeners with limited space can still enjoy growing vegetables in pots and planters on a balcony or patio. The quickest, easiest, and most successful way to grow in this manner is to purchase plants, pots, and potting soil from a local garden center.

For gardeners with limited mobility, containers may be placed on a table or bench to make them more accessible.

Setting up a Container Garden

Good quality soil and drainage are important for success in container-growing outdoors. Gardeners with a larger budget can purchase pots from garden centers (where you can also get advice on the size and type to purchase for the plants you intend to grow). Place a few pebbles in the bottom of each pot near the drainage holes before filling the pots because this will improve drainage and help keep soil from leaving the pot when it is watered.

Smaller plants like lettuce, arugula, and herbs can be grown in pots as small as 4 to 6 inches deep, while larger vegetables like tomatoes, cucumbers, or bush beans require more room--a 5-gallon bucket or larger. These larger plants may also need support to grow well.

Many people on a limited budget grow in a variety of inexpensive and repurposed containers. The dollar store often has pots and even soil available in the spring and early summer. Repurposed items such as buckets or larger food containers may also be used once holes have been drilled into the bottom of the containers (use a drill or a hot skewer to make a few drainage holes). More on the types of containers recommended can be found in this article from the Maryland Extension Office.

If planting seeds, follow the directions on the seed packet. It is helpful to cover the top of a pot loosely with plastic wrap to help keep the surface of the soil moist while seeds are germinating. Germination may occur more quickly inside the house if the weather is not yet warm enough. Care must be taken to keep seedlings watered, but not over watered, and they should not dry out at any time.

Grow varieties that are smaller and more compact for greater success. Many varieties of tomato and cucumber are available that have been developed specifically for container gardening.

What to Grow

There are many plants to choose from, but three popular and easy to grow plants are cherry tomatoes, bush cucumbers, and basil.

Tomato plants are most easily grown from a plant purchased at a garden center because seeds can be planted earlier and the resulting more-mature plants will be ready to grow in containers as soon as it is warm enough to plant them outside. This reduces the growing time before the harvest can begin.

Bush cucumbers can be easily planted and grown from seeds in a container. Follow package directions and ensure the soil remains moist but not soaked during the germination period.

Basil is easy to grow from seed and is a good companion plant for tomatoes (it's also delicious when eaten or cooked with tomatoes), so it's a great choice for a small patio garden. Pinch off the tops as the plant grows to encourage bushy growth with stronger stems.

Additional Resources for Container Gardening Outdoors

Growing Vegetables in Containers University of Maryland Extension Office.

<u>Vegetable Container Gardening</u> Virginia Cooperative Extension.

<u>Vegetable Container Gardening Video</u> University of Rhode Island Cooperative Extension.

<u>Growing Vegetables in Containers</u> UW Madison Extension Office.

Vegetable Gardening in Containers Virginia Cooperative Extension.

Vegetable Garden in the Yard

For gardeners with more space, a dedicated vegetable garden with raised beds or plants planted directly in improved soil can provide a good harvest of a wide variety of vegetables.

Some homeowners associations may not allow a dedicated vegetable garden, in which case vegetables may be planted in beds with landscaping as long as there is sufficient sunlight available. Colorful options like peppers and well-groomed tomato plants provide a splash of color that can enhance the garden.

Raised beds can be made and are a great option for gardeners with the time and resources needed to establish them. They can be helpful in reducing insect damage and provide a more controlled growing environment. For information on raised beds go to the West Virginia Extension Office's Raised Bed Gardening webpage, which details how to build, maintain, and grow in raised beds. The garden must receive enough daylight (at least 6 hours of full sun each day-- preferably more).

In-ground vegetable gardens are a more traditional approach, where plants and seeds are planted directly in beds in the garden. For best results, soil preparation should precede planting and the garden must receive enough daylight (at least 6 hours of full sun each day--preferably more). This article from the University of Maryland Extension Office provides all the information needed to plan and grow a successful in-ground vegetable garden.

Three popular vegetables that are easy to grow in an outdoor garden include tomato plants, winter squash plants, and radishes. Relatively carefree and resistant to most pests, these vegetables are suitable for beginning and experienced gardeners and are great to use when planting gardens with young children.

Radishes are easily planted in neat rows directly into prepared garden soil and can be grown early in the season. As they grow quickly, they are a great crop for growing with children.

Tomato plants purchased from a local garden center will grow well, require little maintenance, and provide great-tasting produce well into the fall.

Butternut Squash can be easily grown in an outdoor garden where its longer vines will not be a problem but can also be trellised to save space if desired. A bountiful producer, fruits can be stored and eaten through the winter months. These plants are easily grown from seeds planted directly in the soil. Follow package directions.

Resource for All Vegetable Gardens

<u>Virginia Cooperative Extension Home Garden Website</u>--a one-stop shop for all your gardening needs with links to additional resources by topic.

<u>Virginia Cooperative Extension Home Gardening Planting Guide</u>--recommended planting dates for seeds and seedling when growing vegetables outdoors.

<u>Plant Propagation From Seed</u>--detailed information on growing vegetables and flowers from seed.

Freyja Bergthorson, Loudoun County Extension Master Gardener



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