Trumpet Vine

Knowledge for the Community From Loudoun County Master Gardeners

Spring 2018

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LOUDOUN COUNTY MASTER GARDENER LECTURE SERIES

FIRST THURSDAY OF EACH MONTH
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April 5, *Local Tree Health Update* with Greg Bradshaw, Certified Arborist and Horticulturalist, Bartlett Tree Experts. Rust Library

May 3, *Tropical Foliage Plants: The Answer to Hot, Humid Summer Gardens* by Marianne Willburn, garden columnist and author. Rust Library

June 7, *A Visit to Blandy, the State Arboretum of Virginia* with Steve Carroll, Director of Public Programs. Arboretum

For more information, visit our web site at loudouncountymastergardeners.org

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Fickle Spring

Spring is notoriously fickle. A popular adage has it that March comes in like a lion and goes out like a lamb, or vice versa. This year, on February 21, the temperature in Leesburg was 81 degrees F. Based on that, some forecasters predicted that spring would be 20 days early, but the forecast for the first day of spring, March 20, is a high of 38 degrees F and rain, with possible snow the following day.

This photo of a bumblebee on a *Pieris Japonica* was taken on March 12, 2016. This year, the flowers on the Pieris are still closed, and it's too cold and windy for bumblebees to fly. While bumblebees can fly at 30 degrees F, they would need the help of warm sun and calm air.

Yet the forsythia is blooming along with crocus and other bulbs, and the spring wild flowers are undeterred. How do they survive nights with temperatures in the 20s? Plants are killed when the water in cells freezes and breaks the cell walls. But the water inside the cells of plants accustomed to spring temperatures contains substances such as dissolved salts, sugars, and enzymes. These work more or less like antifreeze. But this is effective only at temperatures no lower than 20 degrees F.

Spring wildflowers have various strategies to survive fickle spring weather. The earliest flowers such as Harbinger of Spring are tiny and can barely be seen in the leaf litter of the forest. Others such as Spring Beauties close their flowers on cloudy days to protect their pollen. They can self-pollinate if no insects brave the weather. Yet others seek out sunny eastern slopes and sheltered spots waiting for some true spring warmth.

"In the spring, at the end of the day, you should smell like dirt."
— Margaret Atwood, Bluebeard's Egg

My Backyard Program

Residents know that pesticides and herbicides are powerful chemicals that can injure wildlife if overused. But, did you know that over-fertilization and erosion are major threats to Virginia waterways and wildlife? Carried with rainwater into lakes, rivers, or the Chesapeake Bay, nitrogen from fertilizer feeds toxic algae to create dead zones where nothing else can survive. Sediment from erosion clouds waterways, preventing the growth of aquatic grasses—the base of the food chain for many fish and waterfowl.

The good news is that you can help protect Virginia's natural resources and still enjoy a vibrant, healthy yard. By taking part in the ***My Backyard*** program, you receive education necessary to implement an environmental landscape management plan for your own yard, which will save you both time and money, making it even easier to enjoy. Residents can make positive changes in the environmental quality of their yards, neighborhoods, and surrounding waterways.

Natural resource conservation begins in my backyard. Virginia Cooperative Extension Loudoun County Master Gardeners educate on environmentally sound landscape management practices for the homeowner. Conservation and preservation of our natural resources, like soil and water, is the ultimate goal. ***My Backyard*** is a program designed to assist and guide residents with healthy soil, lawns, trees, shrubs, perennial flowers, and more.

Yards are evaluated using a scorecard based on ten principles called Yard Actions. These include:

Maintain Healthy Soil, Recycle Yard Waste, Be Wise When You Fertilize, Reduce Stormwater Runoff, Right Plant/Right Place, Mulch Matters, Grow Native, Remove Invasives, Manage Yard Pests, and Water Wisely.

Every positive measure taken within these principles earns "inches" toward self-certification. By meeting the requirements and achieving 36 inches, a yardstick, you are eligible to become a Certified Watershed Partner. Homeowners obtaining the certified yard status will receive a certificate and have the option to purchase recognition items to show your achievements.

Get involved and make a difference! Keep our natural resources free from contaminants for future generations. For more details, see our website www.loudouncountymastergardeners.org and look under the Programs menu for ***My Backyard***.

Barbara Bailey, Loudoun County Extension Master Gardener

Tomato Planting and Growing Advice

Photo: CC0 License - Creative Commons

Tomatoes are the quintessential vegetable of the summer vegetable garden. Even those who do not consider themselves vegetable gardeners have at one time or another purchased a tomato plant, *or two*, to fill a barren spot in their yard or fill a conveniently empty container. In this two-part article, you will discover a favored planting technique for tall tomato plants and options for caging or trellising the plants.

Part 1–Trench Planting Tomatoes

Beginning in early spring, many retail outlets have racks upon racks of small tomato transplants ready for buyers well before the proper time has come to plant outside in the garden. While the plants await their appointed destiny in the garden at the right time (Mother's Day in this area*)* they continue to grow and at planting time can be quite tall and leggy. While the average gardener may find this an attractive quality, consider that the stem can be long and thin and not very strong at all. Gusty spring winds, thunder-storms, or hard rains can pose great risk of damage to the plant before it can get well established. Additionally the root structure will be very small if the plant was not transplanted to a larger pot prior to setting out in the garden. The plant may not have the root support it needs or enough of a root structure to immediately begin vigorous aboveground growth. There is a way to plant to make the tomato resilient and productive.

Photo: Wiki commons

Trench planting is a time-tested method of planting tall and/or leggy plants. Using this method ensures your plant will have a root structure that anchors the plant firmly in the soil along with increasing the root mass to encourage productivity during the season. Perhaps you have examined a tomato stem before and noticed the fine "hairs" that line the stem. Each of these "hairs" has the ability to become a new root when it comes in contact with the soil. In trench planting you will be planting most of the stem horizontally so most of these "hairs" are now underground and ready to become new roots.

Trench Planting Steps

1. Tools needed: garden trowel, measuring tape, watering can, tomato cages or trellises, stakes and plant labels*. TIP--Garden soil should have already been amended and/or appropriate fertilizer mixed into soil prior to planting*.
2. Begin by measuring the tomato plant from the root ball to just below the top two sets of leaves.
3. In the garden, dig a trench (instead of a hole) five inches deep and as long as the measurements you made above.

4. Remove all leaves except the top two sets by snipping off with a scissors. *If you pull them off you may break your stem!*
5. Tap the pot to loosen the root ball of the plant and gently remove pot. Loosen the roots slightly. If the plant is in a peat pot, remove one small area or one of the sides of the pot so the roots will have soil contact immediately. Also make sure none of the peat pot is showing above ground after planting.
6. Lay root ball and plant stem horizontally in the trench with the top leaves on the ground and not in the trench.
7. Begin mounding soil two to three inches over trench starting at the root ball and continuing up the stem until the entire stem is covered *except* the two top sets of leaves.
8. With one hand supporting the top two sets of leaves, use the other hand to *gently* curve the top up at a 30-degree angle or just enough so the top is somewhat oriented toward the sun. *It does not have to be straight up. Be careful not to break stem.*
9. Mound soil around the top to help hold the top in this position or, if using stakes, use a stake to help maintain this orientation. The plant will eventually grow toward the sun and not need any assistance to stay upright in a few days.
10. Add more soil to the trench to level off the area and to firm the soil over the trench area and the root ball. New roots will now grow the entire length of the stem that has been buried.
11. Water the root ball and stem gently, being careful not to expose any roots or the newly buried stem.
12. Install cages or trellising immediately after planting.

You will find some informative tomato trench planting tutorials on *YouTube* if you would like to see the process firsthand before attempting it in your own garden. Enter "Trench Planting Tomatoes" in the search bar.

Part 2–Caging or Trellising Tomatoes

After planting your tomato, immediately install a sturdy trellising system or cage. If you wait to do this, you may damage newly established roots or the plant itself as you try to maneuver stakes or a cage around the plant. The benefits of caging or trellising include keeping the fruit off the ground to prevent rot or disease, providing maximum airflow to help delay or prevent disease, allowing easier inspection of the plant for disease or pest issues, and searching for ripe fruits.

Photo credit: Denise Palmer

Which kind of cage or trellis system you use depends on availability in local retail outlets, how many tomato plants you have, how big the tomato plant will be at maturity, and how much space you have in the garden.

Indeterminate varieties of tomatoes (this includes all heirloom varieties) can grow very large, sometimes with vines over ten feet, and will very quickly overwhelm a small cage or trellis. In addition, if the cage or trellis is too small, a top-heavy plant with foliage and fruit may fall over in a strong wind and/or break at the main stem, resulting in lower production or death of the plant. Tomato vines will not naturally grow upward, so frequent attention must be given to tying up these long vines on tall cages, stakes, or trellises, especially as the season progresses.

Determinate, compact, bush, or container varieties of tomatoes must also have some kind of cage, trellis, or staking system installed at planting although they do not require the large elaborate systems of indeterminate types. These types of tomatoes will not generally produce long vines but will have a very sturdy main stem that is prone to toppling in winds, so focus on making sure the main stem is not allowed to sway in windy conditions.

Standard types of cages are sold readymade at many local retail outlets, each with their own benefits and downfalls. In addition, you may choose some do-it-yourself options if you have tools and a few mechanical skills. Below are details about some available options.

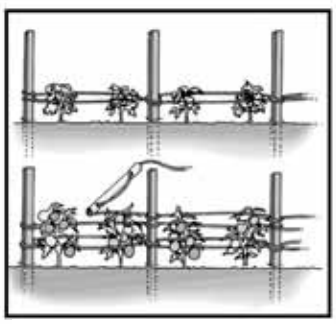


Figure Credit: Lewis Jett, University of West Virginia, Xtension.org

Trellising Systems--Basket Weave, Florida Weave, or Woven Row

These methods begin by driving sturdy 5-foot or 6-foot metal or wood stakes at predetermined intervals along a straight line and then using a durable tomato twine to create a trellis system between the stakes in which the tomato vines are then woven, tied, or tucked between the trellis lines as the vines grow. This method is best for large numbers of tomatoes in a large or commercial garden setting because it saves labor and overall material costs. However, in smaller spaces, this method could be used for narrow and/or long garden beds where large circular cages may not fit.

Trellis--Pre-Made Wood or Steel

If using a premade wood or steel trellis, make sure the height appropriately fits your tomato. The trellis must be at least 5 feet high for an indeterminate tomato. In addition, the trellis should have ample spacing for tying up vines, allowing good air circulation to the plant and providing spaces to harvest ripe fruits. Use additional stakes to securely anchor the trellis into the ground.

Wood Trellis Photo Denise Palmer

Cages--Premade Circular or Square Galvanized Steel

Circular Tomato Cage Credit: Denise Palmer

These are the metal cages you commonly see in local retail outlets. The circular ones come in two sizes--33 and 54 inches. The smaller size should be used only for determinate or container tomatoes or even better yet, for peppers. The larger 54-inch cage is barely sufficient for a large indeterminate tomato. However, if installed with four 5-foot or 6-foot stakes around the cage, the larger cage can work as long as you keep up with tying vines to the cage and when long vines exceed the cage height, use tomato twine or garden tape to construct a trellis between the stakes around the cage to tie these to.

Square cages generally come in a 4-foot-high size, which is not big enough for an indeterminate tomato. However, these cages can often be stacked upright making a 4-foot cage into an 8-foot cage. Use zip ties to secure the two cages together on all sides and install two 5-foot stakes on at least two opposing sides to ensure the cage does not topple over with the weight of the plant. Pruning of selected vines for air circulation may need to be done in late July because these cages are sometimes only 12 inches in diameter. In addition, certain branded square cages can be folded flat for storage in the off-season, making them space savers.

Do-It-Yourself Cages--Concrete Reinforcing Mesh or Livestock Panels

Cages made from these materials can be the sturdiest and longest lasting of all types. Livestock panels are available from farm stores and come in 16-foot lengths, which means transporting them may pose challenges unless you are prepared to take a bolt cutter to them prior to transporting them to your home. Livestock panels can also be cut to your desired length and placed in a straight line with tall stakes supporting the panel and then used as a sturdy trellising system. Panels can also be broken down into smaller pieces, creating a square cage. Online sources can guide you further in making square cages out of these panels.

Tomato growing on a livestock panel Photo: Normalee Martin

If you are considering concrete reinforcing mesh, the mesh should be 9- or 10-gauge and 5 feet high; it is usually sold in 150-foot lengths at home improvement stores. For large cages, the wire is cut into 6-foot sections with a bolt cutter and then rolled into 23-inch diameter round cages. The cages must be anchored to the ground with stakes or anchor pins so they don't blow away. Online instructions explain in detail how to make the hooks that hold the shape in place along with other helpful tips. These cages are considered the sturdiest and most long-lasting option, although storage can be an issue in the off-season.

Using the above techniques will help you successfully establish your tomatoes for summer harvest. For additional reading about growing tomatoes as well as the techniques described above, refer to the listed resources below.

https://pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/426/426-418/426-418_pdf.pdf

https://extension.psu.edu/stake-your-tomatoes

https://content.ces.ncsu.edu/growing-tomatoes-in-the-home-garden

http://articles.extension.org/pages/18647/training-systems-and-pruning-in-organic-tomato-production

Denise Palmer, Loudoun County Extension Master Gardener

Meet the Radishes

When planning a vegetable garden in the spring, most of us think of substantial vegetables that could be main ingredients in a hearty meal--broccoli, carrots, beans, squash, tomatoes, potatoes. Or, we think of vegetables that would be good for a light but still filling salad-like meal--cucumbers, peppers, greens. These are the proven stars in a home vegetable garden. And then, there are those in a supporting role, specifically those little round red vegetables used for their zesty crunch and zing in salads: radishes (*Raphanus sativus)*.

The familiar salad garnish (the root of the plant) is super easy to plant in the spring and grows quickly to harvest. A common commercial variety easily available as seeds is Cherry Belle. There are round white varieties, too, such as Snow Belle, or other colors such as Easter Egg. Also, all radishes are not round; there is Icicle, shaped like a carrot, or French Breakfast, which is bicolor and tapered. What is edible, however, need not be just the root of the plant, but the flowers and seed pods, too. There is Rat's Tail, bred not to be used for the roots but for the seed pods. Venturing on to the more exotic, there is the large white winter Daikon encountered in restaurant meals. Being a member of the Brassica (Brassicaceae) family, radish tops are edible too.


C/o Gurneys.com


SouthernStates.com


Burpee.com


Growveg.com, c/o Barbara Pleasant


Seedsavers.org

As you browse your seed catalogs, you may see unfamiliar images of all sorts of radishes and skip them anyway because you have no need for anything new other than the round red salad balls, and not even a lot of them. (Varieties: http://www.johnnyseeds.com/search/?q=radish&sz=18&start=18, https://www.chefs-garden.com/products/root/radish, https://www.superseeds.com/collections/radish

https://www.rareseeds.com/store/vegetables/radishes/.) Yet we have so many choices to plant.

And radishes need not be only for garden-to-table use. Can you think of other benefits of having radishes in your vegetable garden? Think trap crop. Think cover crop. Think companion plant.

Maria Daniels, Loudoun County Extension Master Gardener

It's Time to Plant a Dogwood Again

The flowering dogwood, *Cornus florida,* is the Virginia state flower and tree. It once graced most lawns, the roadsides, and the woods of Virginia. It typically grows 15 to 30 feet tall with a low-branching, broadly-pyramidal habit. It may be the most beautiful of the native American flowering trees. It provides four-season interest with iconic white bracts in the spring, red foliage and red berries in the fall, and attractive bark and form in the winter.

In the past 30 years, two diseases have ravaged the flowering dogwood. In 1978, a fungus, *Discula destructive,* was introduced into the Northeast United States, most likely on Krousa dogwood stock. This fungus causes the dogwood anthracnose disease. Due to the characteristics of the disease, it spread quickly down the mountains of the east coast, wiping out most of the forest dogwoods. The infection is more likely to occur at higher elevations and on moist-to-wet sites. Shade increases the risk of infection and mortality. Spores are washed onto new leaf tissue during periods of wet weather or sprinkler irrigation. Spores of *Discula destructiva* land on shoots and leaves, penetrating them directly and causing the quick death of the plant tissue due to the production of several toxins by the fungus. Larger trees often die two to three years after the first symptoms are found in the leaves.

Dogwood anthracnose Photo, Clemson Extension

In 1990, a disease-resistant cultivar was discovered in Catoctin Mountain Park in Maryland by plant scientists from the University of Tennessee. In 1991, they took cuttings from the disease-resistant tree and started a line of cloned disease-resistant trees named Appalachian Spring.

Powdery mildew on dogwood Photo, J. Hartman, UKY, Bugwood.org

A second disease to attack *Cornus florida* is powdery mildew. Powdery mildew on dogwood is known to be caused by two different fungi, *Microsphaera* and *Phyllactinia*. There are many powdery mildew diseases on many of the different plants that we grow, but the diseases don't go back and forth across the different species. They are generally host-specific. The symptoms on dogwood are different than the typical powdery mildew and may be mistaken as another problem. On dogwood, this disease may cause a white powdery growth on the leaf surface, but it may also cause scorch on the edges of leaves, dead patches on leaves, yellowing, leaves with a reddish color, and premature leaf drop. The mildew pumps water out of the tree and creates drought stress.

Favorable conditions for powdery mildew are warm days, cool nights, and high humidity. Dogwoods may be more severely affected by this disease because it occurs earlier in the season.

The good news is that with some basic horticultural practices you can again have a beautiful, healthy, flowering dogwood with all of its environmental benefits.

A combination of following the right plant/right place philosophy and providing your dogwood with what it needs to avoid stress will likely result in a healthy tree.

White bracts Photo, UNC Extension

You may begin with a disease-resistant cultivar such as Appalachian Spring, Cherokee Brave, Jean's Appalachian Snow, Karen's Appalachian Blush, or Kay's Appalachian Mist. With proper placement and proper care, you may even successfully grow a straight species.

Follow good tree-planting guidelines. Choose a site that will accommodate a tree that grows 20 feet tall and 25 feet wide. Make sure the tree is not planted too deeply. The root flare must be visible. A young dogwood has soft bark that will rot if clay is pressed up against it.

Since these diseases are caused by fungi, good placement can achieve dry foliage and good air circulation, discouraging the fungus. Place the tree with an eastern exposure where it will get good morning sun that will dry the foliage early in the day. Avoid sprinklers that wet the leaves and avoid full sun. Place the tree in the open where the air circulates freely. If it's under or near large trees, prune those trees, providing the dogwood more space and more light.

Avoid heavy wood mulches. Apply a 2-inch layer of shredded leaves or half-rotten leaf mold over the root zone annually. Dogwoods hate drought. Young dogwoods should be watered regularly for their first two years, but do not overwater. During droughts, mature trees should receive five gallons of water per week. Use soaker hoses or other methods that water deeply, and keep water off leaves and twigs.

Prevent fungus from entering the trunk by carefully pruning sprouts. Avoid bark injuries. Avoid heavy nitrogen fertilizer use and excessive pruning. These practices produce succulent growth that is more easily infected by the fungus.

Fall foliage and berries Photo, UNC Extension

If you want a ground cover under the tree, use complimentary native perennials such as ferns, foamflower, creeping and wild phlox, and wood asters.

With some care, your dogwood will reward you with four-season beauty.

Carol Ivory, Loudoun County Extension Master Gardener

Those Pesky Winter Weeds!

Winter weeds sprout by the thousands in September, October, and even on warm November days. Unless we weed them out in the fall, they hang around until early spring when they start growing and taking over our gardens and lawns if we turn our backs for even a week. Unless we're alert, by the time we notice them, they are well along in their spring life cycle and will quickly grow, flower, set seed, die, and disappear until the fall, when their offspring repeat the cycle.

Obviously, we all want to control winter weeds in our garden beds and lawns. But, failing that, perhaps we can actually find a glimmer of light out there among the weeds.

Controlling winter weeds in garden beds:

If you already have a crop of winter weeds in your garden--and who doesn't?--naturally you'll want to prevent them from going to seed.

- Weed as soon as possible after they germinate. Some of the weeds will have grown a little and be easy to grasp, but others will be tiny and very difficult to get hold of at this stage. You may want to wait until they are slightly larger, but don't wait too long; these weeds grow fast. Unless you weed barehanded, examination gloves from the pharmacy section of the drugstore are very useful. They allow more flexibility than garden gloves but still protect your hands. When the soil is damp, weeds will pull out fairly easily; when it's dry, you'll have to use a hoe to tackle them, chopping them off when they're small. I like to use a scuffle hoe. It's easy to use and does the job quickly.

- Weed often. Once they start germinating, winter weeds will continue to do so over a period of several weeks. Even if you totally weeded them all out in the fall, a new crop can sprout on warm winter or early spring days. Weed again! And again! Take advantage of warm late-winter days to tackle the job. I started weeding my flower beds February 20 this year, when it was warm and pleasant outside. Even that early, I found one tiny weed that had already started blooming.

Two tiny flowers growing in this little weed patch in Aldie on February 21.

If the weeds do go to seed, the next step is to try to prevent germination and the beginning of a new cycle. There are two ways to do this:

- Mulch before the seeds germinate. Most weed seeds need light to germinate. Mulching deprives them of that light. While mulching is more labor intensive than spraying with weed killers, there are additional benefits: a two-inch layer of mulch not only prevents weeds from germinating, it conserves soil moisture, prevents mud from splashing on flowers on rainy days, and generally adds to the attractiveness of a flower

bed. For more on organic mulches, an excellent article about them can be found at http://articles.extension.org/pages/65025/organic-mulching-materials-for-weed-management.

- In flower gardens, landscape fabric (not my personal favorite) or a layer of four to six sheets of newspaper can be placed directly on the soil (after, of course, you've weeded it). Wood chips can then be placed over the paper for an attractive mulch. In my garden, the paper generally lasts for three years before it has to be replaced. By that time, it has deteriorated to the point that it can be dug into the soil, and you can start the process over with more paper. Unlike inks in the past, modern inks are generally soy based and safe for garden use.
- In vegetable gardens, the two most obvious choices are black plastic or clean wheat or oat straw (not hay). Make sure the straw is clean; you don't want to import weeds.
- Under picnic tables and chairs, old carpet is extremely useful. When we replaced a 9-foot by 12-foot carpet in our family room several years ago, the old carpet went out into the lawn, where it was covered with wood chips and the table and chairs placed atop. No more moving furniture to mow the lawn! No more weeds under the furniture! The wood chips need to be renewed roughly every third year.

A nice straw mulch. Photo by Mark Schonbeck. Virginia Association for Biological Farming

- Use a pre-emergent weed killer in the fall before weeds germinate. In our area, this is generally September and October. Since they also may germinate in spring, a second treatment may be needed then, but be aware that any seeds you plant immediately after using a pre-emergent weed killer will be adversely affected, and you may have to install plants instead. There are a number of pre-emergent weed killers available, both organic (such as corn gluten products) and inorganic (lots of chemicals). Read the labels and follow the directions to avoid unpleasant surprises!

- Soil solarization will kill most annual weed seeds in a fallow garden plot. However the plot does have to be fallow long enough for solarization to work; it needs to be done in the summer when the sun is hot; and afterwards, you should avoid working the soil deeply since only the seeds in the top layer (roughly three inches) will have been killed.

If the weeds have begun active growth in the spring, you have three choices:

- Weed (see above).
- Use a post-emergent herbicide to kill them. *However* post-emergent herbicides can kill desirable perennials in the flower bed. In addition, some weeds are becoming resistant to herbicides. For example, according to the International Survey of Herbicide Resistant Weeds (http://www.weedscience.org/Summary/Species.aspx), chickweed, henbit,

deadnettle, prickly lettuce, shepherd's purse and other mustards, and horseweed (all classified as winter annuals) are resistant to at least one herbicide in cropland. Since annual winter weeds are a self-limiting problem (the weeds *will* die soon on their own), using post-emergent herbicides is not a good choice for these particular weeds and should be the choice of the last resort.

- Wait them out. The weeds will soon die regardless of what you do as the first warmth of summer hits them. Applying herbicides at this point is a waste of money. The horse is already out of the barn--or in this case, by the time you notice you have a serious problem, the seeds are already out of the pods. If you can bear it, wait a few weeks and most of the winter weeds will disappear on their own. You can easily weed out the few that remain at that point. Unfortunately, you will have only postponed the problem; they will have scattered seeds all over your beds, and they will be there waiting to begin the growth cycle all over again in the fall--unless you take action to prevent their germination (see above).

***Lamium purpureum,* deadnettle** Photo by sannse at https://commons.wikimedia.org/wiki/File:Red_Dead_nettle_close_700.jpg.

- Let them grow. In the vegetable garden when they germinate in the fall you could let them grow, then plow them under, either in very late fall or very early spring (before they start to set seeds)--in essence turning them from a bunch of weeds into green manure.

Controlling winter weeds in lawns:

In lawns, the best defense against weeds is a strong, healthy stand of grass. Improving the quality and health of your lawn will go a long way to eliminating most lawn weeds without resorting to weed killers. Pay attention to fertilizing, mowing, insect and disease control, irrigation, aerating, and pH adjustment as needed. If your soil is compacted, or if you have drainage problems, correct the issue. The secret to a weed-free lawn is thick, healthy turf. But if a problem does arise, there are numerous pre- and post-emergent weed killers available to resolve the issue.

And now for the glimmer of light:

If for some reason we fail to control them, is there a positive side to those winter weeds? As pesky as they are, many winter weeds actually do serve a useful purpose.

- In sloping garden beds, they can serve as a bulwark against soil erosion from fall, winter, and early spring rains falling on unmulched bare soil.
- In early spring before other flowers are open, they provide food for early feeding bees, especially the small native bees.
- They can serve as a green manure, as mentioned above.

- And some of them even are good for us to eat.

For example there are numerous recipes using chickweed on various websites. Some restaurants are using it in their menus. Even *Epicurious* discusses the culinary attributes of chickweed at https://www.epicurious.com/archive/blogs/editor/2014/05/what-the-heck-is-chickweed-and-why-is-it-on-my-plate.html. And Martha Stewart uses several weeds in her Wild Herb Ravioli recipe at https://www.marthastewart.com/964318/wild-herb-ravioli ..

***Stellaria media* comon chickweed** Photo by Curtis Clark, licensed under Creative Commons, https://commons.wikimedia.org

All of which brings up the question of foraging for and using edible weeds.

If you want more information about the edible possibilities of the weeds in your garden and lawn, including weed identification and recipes, there are a number of books available on the subject and there's no need to buy them. The Loudoun County Public Library is full of possibilities in the 581.632 and 641.3 sections.

If you're in a buying mood, search "foraging" at Amazon under the "Books" tab. You'll find plenty of books available. on foraging and cooking wild foods.

And two of the best online sites for weed identification are:

- https://weedid.missouri.edu. University of Missouri lists more than 400 weed species, with photographs showing them from seedling through maturity.
- http://oak.ppws.vt.edu/~flessneer/weedguide/ This guide from Virginia Tech has been called "the most comprehensive online guide to United States weeds" available. More than 600 different species are described and depicted (with great photos) in various stages of growth. It's an excellent identification guide.

With these resources, you're sure to find plenty of information on cooking wild foods, including those pesky winter weeds!

By Lina B. Burton, Loudoun County Extension Master Gardener

Space Limited? Exposure Not Ideal? TRY GROW BAGS!

I'll admit I was a skeptic. I doubted that using a grow bag could possibly solve my dilemma of lacking sunshine in my mostly shaded backyard. I was mistaken! It only required taking a chance with a new way to finally grow vegetables...and it paid off!

I began on a small scale, conservative with my plant selection: one zucchini, one tomato, and one cucumber.

All photos by Pamela McGraw

Grow bags come in many sizes and materials. I chose a size sufficient to hold a reasonable amount of soil to sustain my plant choices. The handles on the sides came in handy when I chose to rotate the plants to allow more even growth. These grow bags are permeable so water easily flows through them—both a good and a bad feature. Easy waterflow is good because it prevents the soil from becoming waterlogged, but it's bad because plants tend to dry out much quicker than in a container and require more frequent watering It was with caution I added the flat plastic saucers beneath the grow bags because it's never a good idea to leave a plant in standing water. I monitored the saucers carefully and only occasionally needed to empty them to assure that no harm came to the plants' roots.

Because I have an abundance of this "cute" (highly debatable) little critter, who enjoys incessant digging in my containers, I elected to cut wire screening to place on top of the soil, around the base of the plant, and to the edges of the grow bag…..and it worked!

As the photo shows, the grow bags were situated along the sunny side of my home, enroute to my backyard garden. The air conditioning unit actually contributed to good air movement, but no doubt also

contributed to the need for more frequent watering. Good news is that my efforts paid off.

In short order, my plants were almost outgrowing their spaces! This, of course, made me evaluate my choice of varieties. The bush tomato (far left, out of view) and the small purple zucchini (on right) were perfect; however, the cucumber in the middle was rampant!

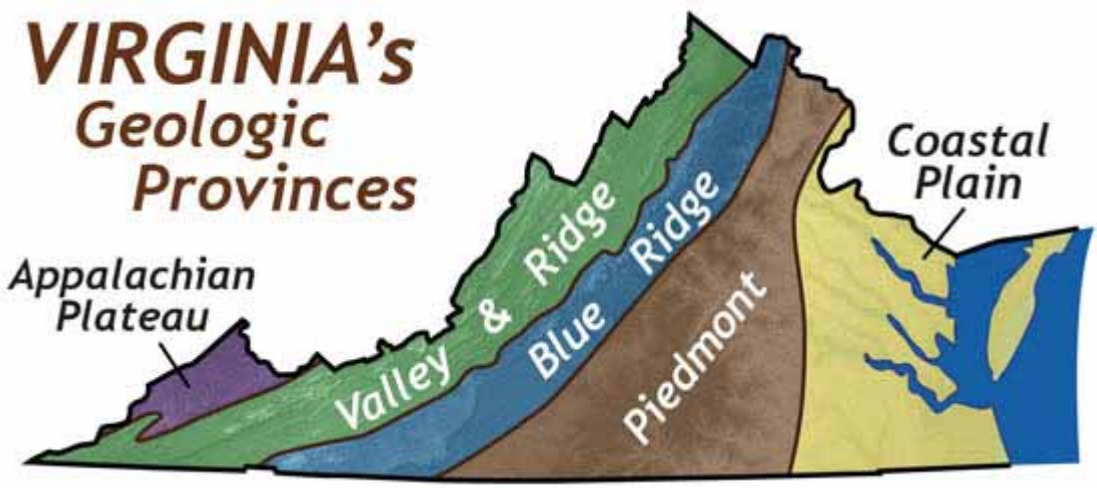
Just a word about the soil. As I would with most container plants, I used a loose mix of compost and sterile potting soil. To thwart pesky insects, I hung the yellow insect strips within the wire cages I used for support. Occasionally, I had to tie the stems to the cages. I fertilized the plants every couple of weeks, knowing that frequent watering dispelled nutrients in the soil more readily.

When the season ended and the plants' mission was complete, I chopped the remaining foliage, and into the compost pile it went! The grow bags were hosed down, dried, and folded into place for storage. Soon I will pull them out and begin again, a little more enthusiastic about the potential that lies ahead! I'm leaning toward trying peppers, parsley, and the zucchini again….or maybe basil and another bush tomato….such fun to consider, since the small in-ground garden in my only other partly sunny location now has space freed up. And, who wants open space when there could be a plant?!

Pamela McGraw, Loudoun County Extension Master Gardener

Piedmont Living and Gardening

The state of Virginia has five Geologic Provinces: Coastal Plain, Piedmont, Blue Ridge, Valley & Ridge, and the Appalachian Plateau, making it one of the most topographically diverse states in the East. This variety of geological settings contributes to a significantly wide range of landforms, soils, and microclimates supporting diverse vegetation and flora. Virginia, roughly triangular in shape, is bounded on the east by the Atlantic Ocean, on the north and east by Maryland and the District of Columbia, on the west by West Virginia and Kentucky, and on the south by Tennessee and North Carolina.



From The Geology of Virginia http://geology.blogs.wm.edu/

Loudoun County is located within the Piedmont province, which stretches from the falls of the Potomac, Rappahannock, and James Rivers to the Blue Ridge Mountains. Rocky falls and rapids on these rivers make a transition from the softer sediments of the Coastal Plain to the resistant bedrock of the Piedmont. The region runs across the middle of the state from north to south. To the north, the region continues from Virginia into central Maryland and southeastern Pennsylvania. The area of the Piedmont is approximately 80,000 square miles, with a width of nearly 300 miles in North Carolina.

The name, Piedmont, is a French term literally meaning “foothill.” The Piedmont is the largest physiographic region in Virginia, making up about 39 percent of the state, and is dominated by igneous and metamorphic rock. It is the remnant of several ancient mountain chains that have eroded away. Within the state of Virginia, the Piedmont is located spatially between the Blue Ridge and a line running between Arlington, Virginia, and Emporia, Virginia.

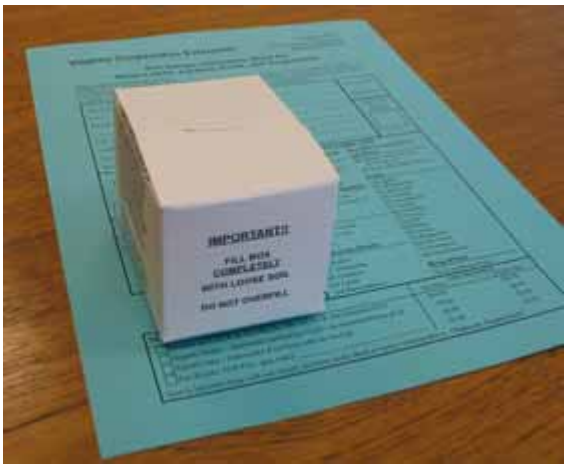
There is some evidence from the writings of early explorers that open, savanna-like woodlands and grasslands occupied parts of the Piedmont at the beginning of European settlement. Most of the Piedmont land was converted to farmlands after European settlement, but today, a mix of pine-oak-hickory forests arise from abandoned farmlands. The soils in this region are generally clay-like and moderately fertile.

The bedrock of the Piedmont is mostly gneiss, schist, and granite rocks at a typical depth of two to ten feet. Soils developing from these rocks and minerals form acidic, infertile soils with sandy

loam surfaces. The minerals primarily dominant are quartz, feldspar, and mica. Many of the clay subsoils are red or yellowish-red due to the oxidized iron from the primary minerals.

Piedmont soil can be a challenge for gardeners. The most common complaint with clay soil is that it can get waterlogged and has poor drainage. Soil drainage refers to the movement of water through the soil, not how fast water runs off the surface. Clay soil is heavy to dig and slow to warm up in the spring and may slow the growth of annual plants. Clay soil does have small clay particles that can help retain water and nutrients. This allows the soil to keep the nutrients instead of allowing them to leech down and away from your plants. Some soils have high aluminum in the subsoil, which can be a problem for certain crops.

How you treat your soil depends on what you are growing. Turf grass grows well in clay but may require liming. Always add nutrients based on the recommendations of a soil test. Overuse of any nutrients adds to the pollution of the Chesapeake Bay.



Soil Test Kit

Vegetable gardens require special attention. Test your soil and take the recommended steps to maintain a pH of 6.5 and 7.0. Maintain a regular program of adding compost and other organic materials. Organic matter is the key to making your soil healthier and easier to work. In the fall, work grass cuttings, chopped up leaves, and material from your compost pile into the soil. Plant a fall cover crop and then turn it over in the spring. Recommended cover crops are crimson clover, hairy vetch, oats, winter rye, oilseed, forage radish, and mustards. Buckwheat is an excellent summer cover crop when you have an empty bed in the summer. When working on clay soil, keep off of it when it is wet. Walking on clay soil causes compaction and makes it heavier. Instead, put down wooden planks to walk on so your weight can be distributed. Remember to never dig or plant in the soil when it is wet.

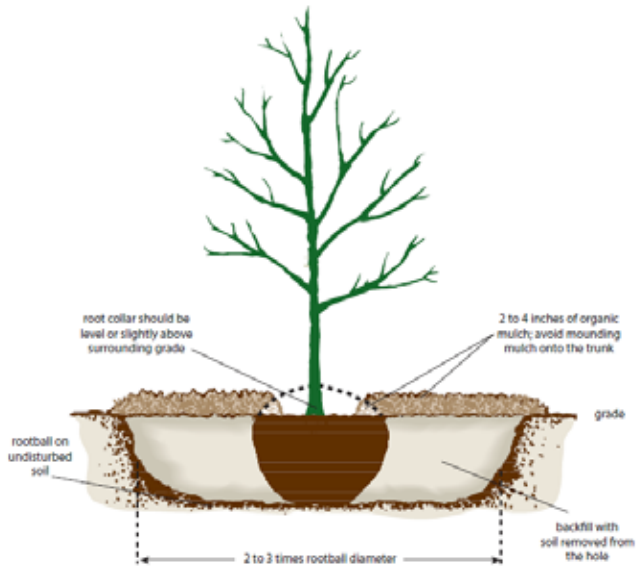
The length of the growing season ranges from more than 250 days along the southeastern Virginia coast to fewer than 150 days at high elevations in western Virginia. The average time of the last frost varies greatly between the three planting regions. In the Piedmont area, the last frost is in late April. Planting here should be done in early-to-mid-May. There are many types of vegetables that grow well in Virginia, including asparagus, beets, corn, okra, tomatoes, eggplant, peas, radishes, and potatoes. Greens such as lettuce, kale, and spinach as well as bush beans, pole beans, and lima beans grow very well in all regions of Virginia.

Because native plants grow best in native soil, trees, shrubs, and ornamental perennials are best selected from the lists of native plants provided by the Virginia Department of Conservation and Recreation for the Piedmont Region. Native plants tend to have deep roots that permeate the clay and help to break it up.

Native plants within the Piedmont area are plants that were found in the region prior to the arrival of the colonists in Jamestown. They are plants that evolved with the animals in the area and have developed unique relationships with them. There are 3,500 plant species in Virginia; more than

800 have been introduced since the founding of Jamestown, with 100 of these being invasive. Native plants are historic to the region, help establish a sense of place, and are an important part of our local ecosystem, providing food for native beneficial insects, birds, and animals. Native plants have certain traits that make them uniquely adapted to local conditions. They are accustomed to the wet soils of the Piedmont area. They also grow beautifully in clay soil without any conditioning or fertilizer. They often surpass non-natives in their rugged nature and low-maintenance requirements.

Native trees and shrubs should be planted in 100 percent native soil. They evolved in and thrive in the clay. Conditioning the soil will encourage the roots to stay within the area of the original hole and never establish healthy growth. The root flare should always be exactly on grade; the planting of woody plants higher than grade is not considered to be a best practice.



Proper Tree Planting

Piedmont forests tend to have a large component of pines and shade-intolerant hardwoods such as oak and hickory. Virginia pine and tulip trees are prevalent in the northern section, while shortleaf pine and sweetgum are in abundance in the southern Piedmont. The eastern Piedmont has many loblolly pines. Trees that grow well in clay soil include: birch, wild black cherry, hawthorn, magnolia, pine, and juniper. Trees to plant in your landscape are river birch, any of the oaks, black gum, and red maple. For a complete list of native trees of Virginia with the regions designated see *Common Native Trees of Virginia.*

Small flowering trees for a healthy habitat include flowering dogwood, redbud, serviceberry, and witch hazel. Flowering shrubs include red chokeberry, American beautyberry, buttonbush, highbush blueberries, winterberry holly, spicebush, and elderberry. Perennial plants are well-suited for clay soils and usually do better than the more delicate annuals. There are so many sturdy perennials. Some musts for a garden are black-eyed susans, asters, bee balm, milkweed, goldenrod, mistflower, and coneflower. Good ground covers are phlox, golden ragwort, and foamflower.

Native grasses are deep-rooted and cannot be regularly mowed. They are beautiful and are a must in any meadow and in many gardens. Some native grasses will grow in the shade. These include blue wood sedge, wild oats, and Pennsylvania sedge.

Take advantage of your Piedmont clay; don't fight it. Plant low maintenance natives and enjoy!

Heather Swanson, Loudoun County Extension Master Gardener

Can Raising Monarchs in Your Home Harm the Conservation of the Monarchs?

Are you part of the Monarch Watch? Do you bring in caterpillars, feed them, and then release them in the hope that you are contributing to helping the monarch? Sometimes our good intentions can cause more problems if we are not cautious.

Photo by D. Hayes

I have talked with several experts in the field. Dr. Chip Taylor, University of Kansas, and Dr. Karen Oberhauser, University of Minnesota and former director of the Monarch Lab, suggest that interaction with humans, decrease of habitat, pesticides, and caterpillars infected due to hand raising could be instrumental in the decreased numbers of the monarch.

I have been concerned what the repercussions of raising monarchs have had on the population. I posed the question to some experts. Could this disruption of their lifecycle possibly cause more problems for the monarch? In my own garden, I provide food and areas for the larva (caterpillar) to pupate, but I stop short of taking them into my home. In talking with these experts, they have concerns that the exposure to viruses, diseases, and other contaminants to a monarch when taken out of its natural environment and raised in a home have some merit. Experts agree that *indoor rearing could actually harm monarchs if proper procedures are not followed.*

Photo by D. Hayes

Each monarch can lay up to 600 eggs each year and rearing a small percentage of a single monarch's offspring will have negligible impact on the whole population. But as the number of people who collect and rear large numbers of monarch increases, it becomes more important for them to understand the impacts of their actions. University of Georgia Monarch Health Project is investigating the health of reared monarchs. Monarch Watch supports the benefits of *responsibly rearing small numbers of monarchs*. Dr. Oberhauser agrees, as long as those who are rearing the monarchs are reporting the data to a citizen science project because it will help them in understanding monarchs.

Photo by D. Jonas

But what can we do if we want to help the monarch?

Larvae, raised in close quarters, tend to be more susceptible to diseases. So keep numbers in one container to a minimum. Monarch Joint Venture and Monarch Watch recommend that you keep each caterpillar in a separate container.

Keep rearing containers clean and sterilized after each use with a 20-percent bleach solution, then rinse thoroughly. This should be done with each group of larvae that are raised.

Photo by S. Russell

Ophryocystis elektroscirrha (OE) is a harmful protozoan that causes serious deformities in adult butterflies. Adult monarchs can spread spores from the OE parasite to milkweed and then to the monarch's eggs. A caterpillar can become infected with the parasite when it consumes these spores off the milkweed and that can prevent it from emerging from the pupa. (If you see the pupa turning black and staying black, it is usually due to OE) To reduce risk, do not keep adults in the same container as larvae, and do not allow adults to emerge from the pupae in a container in which larvae are feeding.

In addition, rinsing the leaves of milkweed and then blotting them will remove some of the parasites and also keep the leaves fresh longer.

Keep the rearing container out of the sun, because high temperatures can kill the caterpillars. But also keep the container out of air conditioning. Keep a damp paper towel (not dripping) at the bottom of the container to keep milkweed from drying out.

Handle the larvae, caterpillars, and butterflies as little as possible to avoid damaging them or spreading disease.

There will be some deaths during this period due to diseases, viruses, or contaminated milkweed. If this happens, immediately remove any deceased caterpillars or butterflies from the container.

The day before a butterfly emerges, the pupa will become dark and the wings will be visible through the pupal skin. Butterflies usually emerge in the morning. They need to hang with their wings pointed down. A pupa that has been dark for more than a few days is likely dead.

After they emerge, butterflies should not be handled for the first four to five hours, and they can be kept in their container for up to a day before being released. If you keep a butterfly longer, then you will need to provide nectar for it.

Photo by B. Bailey

One thing that many of the monarch programs insist on is: Do not support mass monarch rearing, particularly commercial butterfly farms and mass butterfly

releases (weddings and other events). This is due to large populations being infected with many diseases because of the close quarters in which they are raised. When these butterflies migrate to Mexico, they will carry these diseases to all the others.

If everyone follows the guidelines that these monarch programs suggest, we are ensured that our help with the monarch's conservation is safe and not interfering with their natural order.

Other websites to find more information for safely raising monarchs:

http://blogs.discovermagazine.com/crux/2016/06/21/are-we-loving-monarchs-to-death/#.WnoJKmffOUl

https://monarchjointventure.org/images/uploads/documents/Monarch_Rearing_Instructions.pdf

http://monarchparasites.uga.edu/monarchhealth/index.html#About

http://monarchwatch.org/rear/index.html

Diane Hayes, Loudoun County Extension Master Gardener

Gardening as Science; Gardening as Art

Ahhh, gardening season is here! What a glorious time to get back to what it is that makes home gardening both a joy to savor and a challenge we willingly take on anyway. Wait, did you bother to get a soil test to jumpstart your 2018 gardening efforts?

Let us be real; doing a soil test is not particularly fun. What would be fun is visualizing a project to replace chronically unsightly turf with alternate groundcover. The former is science; the latter is art. Let us keep in mind, however, that the coming together of both science and art in gardening is what makes it so fulfilling as a home endeavor. The bottom line that matters to a gardener is success: Beautiful blooms to admire, bountiful vegetables to harvest, ripe fruits to pick, calming greenery or shade to enjoy on days when the sun is beating down. So why not garden as holistically as we can?

In this composition of plants, one notices how artful or not this design choice is. It has arrowwood viburnum as anchor, and weigela, coneflower, dusty miller, stokes aster, blazing star, lily, and ironweed. In the same bed are flourishing clumps of lavender, boltonia, and anise hyssop. Truth is, this is less artfully or purposefully designed but is more a healthy coming together of choice plants put in a bed that happened to have space for them. Is it then suitable soil, not design, at work here?

Photos by Maria Daniels

Gardeners garden for varying reasons, usually little concerned whether it is science or art guiding what they do in the garden. When this native coneflower

was planted, the intent was to create a sustainable pollinator garden. Pretty or not, lots of it just had to be planted, in drifts or spread throughout the garden, because of the coneflower's desirability to pollinators. Why the interest in pollinators? Because of their service to agriculture, horticulture, ambience, and the environment. Why native? Symbiosis, ecology.

By the way, what is the big deal about the oft-advised soil test? It is to help establish a good foundation for our more creative and purposeful garden projects.

For example, if you are planning to invest in several desired blueberry varieties, why not take the extra effort to make sure their cultural needs will be met? For one, they require very low pH that does not occur naturally in our area. Their planting site will need amending to get to the desired pH, if one were to properly start the journey to growing delicious blueberries. This small fruit is in fact easy to grow, but only after taking heed of its strict pH requirements (science). Where is the art in growing blueberries? You will eventually figure it out. Can you guess now? Or do you already know?

Fall Color Photo (cropped): Emily Hoover
https://www.extension.umn.edu/garden/yard-garden/fruit/blueberries-for-home-landscapes/

Productive Blueberry Shrub. Photo: Smolak Farms.
http://www.smolakfarms.com/blueberries

Another question for you, whether you are a gardener who loves to snip away or are intimidated by it: How is pruning art or how is it science? Here is an image of beautyberry (Callicarpa) as an example to consider, along with some informational links about the art and/or science of pruning.

https://pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/430/430-462/430-462_pdf.pdf

http://pubs.ext.vt.edu/430/430-459/430-459.html

Have you heard of Crape Murder? Know about it here:
http://pubs.ext.vt.edu/430/430-451/430-451.html

Baffled by Hydrangea not blooming?
http://extension.umd.edu/sites/extension.umd.edu/files/_docs/programs/hgic/HGIC_Pubs/HG%20106_Pruning_hydrangea_guide.pdf

Pictured: *Callicarpa dichotoma 'Issai'*

Even bringing in blooms, vegetables, or fruits from the garden represents the art and science of gardening. Bringing in fruits from the garden for a fruit bowl arrangement is not a simple visual choice but also science—we consider the effect of ethylene gas, a ripening hormone. Apples are a

high emitter. Ethylene gas is also the reason we can harvest tomatoes while they are still green, yet we prefer to pick tomatoes fully ripe for “the art of savoring a vine-ripened tomato!”

When we do not get what we want out of our gardening efforts, when we experience failures or have concerns, we proceed to do some research, more reading, checking with others, or we call the Master Gardener Help Desk. Being a dissemination arm of horticultural and agricultural research carried out at Virginia’s land-grant universities, Master Gardeners base their advice on the science, sound science. The art of gardening is very fulfilling, but the science of gardening is more judicious in ensuring sustainability and respectable success in our gardening endeavors.

As we labor in our garden out of love or necessity, we can appreciate that as true that the sun rises east and sets west, gardening is both art and science. Oh, but how art takes precedence in our hearts and minds when we choose plants in the manner of “eyes-bigger-than-stomach.” We want to take home this plant or that plant because we are attracted to them or because a selection goes well together beautifully, or we heard it is a desired collectible (Himalayan poppy, anyone?).

No one is stopping us from engaging in our beloved hobby the way we want. But do we want success and those plants to live or thrive? Then the rules of science matter. Gardeners know that plants requiring shade should not be in full sun with southern or western exposure. Only full sun in your garden? Then pass up acquiring plants for shade. Mostly shade in your garden? Then get creative in your plant choices. There too will be yellows, pinks, blues, and reds.

Soil science, botany, chemistry, climatology, entomology, phenology... Garden responsibly, and we need not make a conscious distinction between science or art in gardening.

Maria Daniels, Loudoun County Extension Master Gardener

Lichen

Near my house is a dry stone wall with patches of lichen. The wall has only been there about 15 years, and the gray-green patches of lichen stand out against the dark rock. I decided I wanted to find out more about lichen.

Lichen on rocks. Photo by Betty Hedges

Lichen is not considered a plant; rather, it is classified with mushrooms and fungi in a separate kingdom. Lichens are a partnership of a fungus and an algae or bacterium. The fungal portion is about 90 percent of the organism's mass. The fungus surrounds the algal cells and provides moisture, which the algae use along with sunlight to produce the carbohydrates that are needed for growth. They are incredibly adaptable and cover about 6 percent of the Earth's surface, from tundra to temperate regions to deserts to rain forests. There are more than 20,000 known species. They get their specific names from the fungus component, since the algae can live without the fungus but is necessary for the fungus to live. They grow on rocks, tree trunks, mining waste, metal, and even bare earth. Lichens exposed to outer space in an experiment survived on their return to Earth.

Although their rate of growth is very slow, lichens help break down rocks into smaller particles by producing acids that react with the rocks (such as limestone and marble) and by sending filaments into small spaces in the rocks, which then are enlarged as the filaments swell with water. This increased pressure causes the rock surface to break up. Lichens are not parasitic, because they do not harm the plant they are growing on. As a matter of fact, when a piece of lichen breaks off and falls into the ground under a tree, it provides nitrogen to help the tree grow.

Lichen on a tree Photo by Betty Hedges

There are three basic forms that lichenologists classify lichens into: foliose lichens are leafy and can be easily pulled off the tree trunk they grow on. Fruticose lichens are attached at one point and form dangling or shrubby growths. Crustose lichens are the flat types that are usually seen growing on rock. They send many filaments between the rock grains to anchor the lichens and firmly attach them.

Lichens are food for many insects and mammals. "Reindeer moss," lichen found in tundra regions, grows up to three feet tall and is an important food source for caribou and other mammals. Humans have used lichens for food, in herbal medicine, as an ingredient in cosmetics, and as dyes for

textiles. Many species of lichen are sensitive to air pollution and can be used to monitor air quality. They are also possible sources for antibiotics and other medicines.

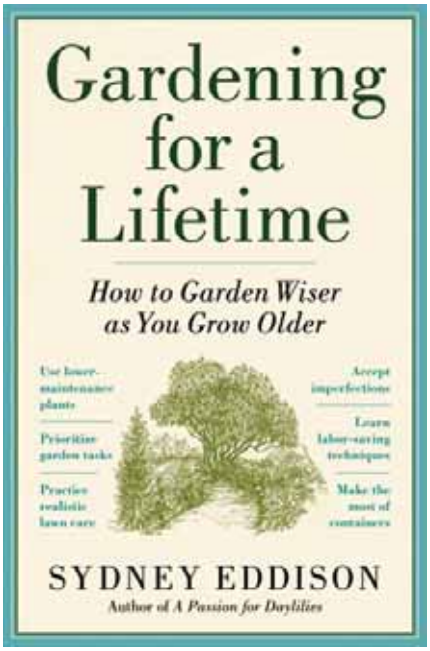
Lichens reproduce both asexually--as when a piece is broken off by an animal or the wind and finds a new location--and sexually via spores. When you look at a patch of lichen and see openings near the center, those structures produce the spores.

Joan Maloof, in her book *Nature's Temples,* notes that old-growth forests have a greater variety of lichen species than younger forests, and many of these lichen species may become extinct when old-growth forests are destroyed. A researcher found 38 species of calicioid lichen growing on northern white cedars in one forest in New Brunswick, Canada.

Lichen is often confused with moss, but moss is a plant and generally lives in moist shady areas. If you have lichens growing on your tree trunks, do not remove them, but enjoy the different colors and textures they add to your garden!

Betty Hedges, Loudoun County Extension Master Gardener

Gardening for a Lifetime



Gardening for a Lifetime, by Sydney Eddison, is a must read for any passionate gardeners faced with the reality that they can no longer adequately care for their gardens by themselves. Whether this epiphany has to do with age, health, the lack of financial resources, a demanding career, family commitments, or the impact of extreme summer heat due to climate change, Eddison shares how, after the death of her husband, a change in her income, and an injury that made it difficult for her to spend as many hours maintaining the one-and-a-half acres of gardens she had created and nourished for decades, she began to look for solutions to her dilemma. Quitting gardening was not an option.

Eddison's humor, wisdom, and philosophical observations are as delightful as the garden beds she will introduce you to. They run the breadth from full-sun and shade perennials to woodland retreats, with an additional focus on the balance created with layers of garden entrances, heights, colors, and shapes to unexpected whimsical elements she tucks into foliage, and the creation of garden enclosures to whisper that more eye candy is just out of view.

You get to know gardeners best, and at their best, through their gardens.

Sydney Eddison

Sunny Perennial Gardens

Her journey toward simplifying her gardening life began by visiting each bed with a sharp-eyed focus on the individual needs and benefits of each plant species.

Some of her sunny perennial border gardens overflowed with clumps of daylilies tortured by poor foliage. These required removal, as did the modern versions of iris she had added over the years that continuously suffered from destructive borers that desecrated the iris leaves each spring. She was heartened that there would be no need to remove the Iris pallida that had been planted more than a half century ago by the previous owner of her property. Found in older and historic gardens, it is seldom bothered by borers. As a bonus, it usually retains its attractive foliage throughout the growing season.

Eddison also knew that "The greater variety of perennials you grow, the more work they will demand." The envy-generated photos of sunny perennial gardens brimming with plants chosen to bloom at the same time in a crowning of perfection will rarely shine a week or two later when they will require constant deadheading, staking, the placement of plant hoops to keep them from falling over, division, weeding, constant treatment to contain damage from nonbeneficial insects, and protection from instant mutilation caused by animals. For all these reasons, Eddison created a hard-nosed "standard of behavior" for keeping or eliminating plants in her sun-loving perennial gardens:

-They must have attractive, all-season foliage that does not require mandatory pruning.

-They must be healthy and able to withstand dry summers and cold winters.

-They do not need to be staked or hooped.

- They will not overtake other plants.

-They do not require constant dividing.

-They are not magnets for predators such as deer, voles, or rabbits.

An invitation to someone's garden is a personal offering, a gift of self. **Sydney Eddison**

Using her new criteria, Eddison thinned out or totally eliminated groups of plants that failed to meet her new standards. In their place, she added flowering shrubs, small trees, and evergreens with the same light, water, and soil requirements of each garden. Some of her favorite additions include:

-variegated red twig dogwood (*Cornus alba* 'Argenteomarginata').

-dwarf Alberta spruce (*Picea glauca* var*. albertiana* 'Conica').

-narrow, upright arborvitae (*Thuja occidentalis* 'Emerald').

-eastern ninebark (*Physocarpus opulifolius*).

-butterfly bush (*Buddleja davidii* 'Pink Delight').

-fountain grass (*Pennisetum alopecuroides*).

-sapphire berry (*Symplocos paniculata*).

-compact oakleaf hydrangea (*Hydraantum* quercifolia 'Sike's Dwarf').

-linden viburnum (*Viburnum dilatatum* 'Asian Beauty').

Perennial Shade and Woodland Gardens

Next, Eddison reviewed the plants in her perennial shade gardens. She delighted to discover that their maintenance was minimal as long as two inches of mulch covered bare areas, and she developed a deeper appreciation for shade-loving plants. .

Over the years, the small trees she had planted created shade canopies that continued to expand to filter out light in more of her gardens. To continually prune these trees requires a great deal of extra work and expense. By simply inserting shade-loving plants like ferns that will spread and fill in empty spaces, or adding self-seeding hellebores and variations of brunnera (false forget-me-not) that flower and create groundcover that discourages weed growth, she turned sun perennial beds into easily maintained shade. For balance, Eddison added goat's beard (*Aruncus dioicus)* and black snakeroot (*Cimicifuga racemosa*) in some of her beds. They are not only tall; they are also excellent substitutes for shrubs, particularly in back borders.

Eddison reminds us that the deeper meaning of gardening for each of us may be: ***Gardens woven from the threads of a real life, from the heart, soul, and experience of an individual, are always unique.*** **Sydney Eddison**

Jeanne M. Eck, Loudoun County Extension Master Gardener