March 2021-Vol.7, No.3

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March in the Edible Garden

By Ralph Morini | March 2021-Vol.7, No.3

Hurray! March is finally here. If you started some cool weather crops indoors in February, you can begin transplanting into the outdoor garden in the middle of the month. As an alternative, garden centers will begin selling transplants of cabbage family crops and lettuces to be planted on the same schedule. Lots of other plants can be direct seeded into the ground earlier in the month. Vegetable gardeners are off and running in 2021.

Activity gets underway for fruit growers as well. It is time to fertilize and care for trees and to plant bramble fruits and blueberries.

Let's review some tips for getting things going.

Manage Your Soil for Best Growing Results

If you haven't had a **soil test** for a few years, a new test makes sense. They are a valuable tool for maintaining your soil at optimum fertility and pH levels. They are recommended every three years. A soil sampling kit complete with instructions is available at your local Virginia Cooperative Extension office. In

Charlottesville/Albemarle the office is located in the Albemarle County Office Building just off 5th Street Extended. Kits are located at both the Stagecoach Rd entrance and inside the double doors on the police side of the building, in marked plastic bins. Instructions and sample boxes are both there. Be sure to take the appropriate instruction sheet, home gardener vs commercial grower. Samples should be mailed with payment directly to the Virginia Tech lab and results will be issued directly to the sender. Please don't return the sample boxes to the local Extension office for shipment. Call the Extension office at 434-872-4580 with questions. For additional information on soil testing, check out VCE publication 452-129: Soil Sampling for the Home Garden.

Regardless of your soil condition, adding organic matter to your soil will improve it, and fully-decomposed compost is the best way to do it. It improves soil structure and water infiltration, while absorbing and holding moisture longer, a real benefit during our hot, dry summers. Compost can be purchased, but can also be made at home using yard and organic kitchen wastes — plus a little bit of effort to keep piles moist and aerated. Instructions for making compost at home can be found in the January 2018 issue of The Garden Shed. If you start a compost batch now, it should be ready for use for your fall planting later this year.

If you have a heavy clay soil in your garden and you aren't sure how to best manage it, take a look at the article Gardening in Clay in the July 2018 issue of *The Garden Shed*. Surprise: the secret is adding decomposed organic matter!

When adding compost to beds, spread a couple of inches on the surface and scratch it into the top 2-4 inches of soil. Let soil organisms carry it deeper through natural processes.

If you are worried that your soil is compacted, rather than till it, insert a broadfork or digging fork as deeply into the bed as possible and rock it back and forth to aerate the soil without destroying the soil structure. Work your way across the beds, advancing several inches with each fork insertion.

Occultation for weed control. Photo: Ralph Morini

Weed Management

Best practices for preparing soil for planting now emphasize minimum tilling. Old practices of deep tilling or turning soil over are discouraged, except for new beds. Tilling breaks up soil structure, increases compaction over the course of the growing season and can bring buried weed seeds to the surface. The biggest issue no-till raises is probably weed management. Hopefully, most home gardeners are not using glyphosate products to kill garden weeds any more. Old time mechanical methods of weed hoeing and pulling are great but a lot of work. A practice that is popular with organic market growers is called occultation. It involves covering beds for 4 weeks or longer with a black tarp or plastic sheet, secured around its edges. This denies light, smothering weeds and speeding decomposition of trimmed cover crop remains. Growers report season-long benefits in stifling weed growth, providing a welcome reduction of weeding labor during the hot summer months. Residue can be used as mulch or composted. The post Black Covers can put Weeds to Bed for Good from the Maryland Extension provides more detail.

It's Time to Plant

According to *Virginia's Home Garden Vegetable Planting Guide* from the VA Cooperative Extension, March is the time for outdoor seeding of cool weather vegetables including beets, carrots, kale, collards, mustard greens, lettuces, peas, radishes, spinach, and turnips. Home-started or purchased transplants that can be planted in the garden this month include broccoli, cabbage, cauliflower, leeks, onion sets, and new asparagus plantings. These dates refer to hardiness zone 7a, but the Guide covers corresponding information for all of Virginia, zones 6a to 8a. It also includes quantity guidance. To protect your transplants, remember to harden them off by putting them outside for progressively longer periods during the day over a 2-week period when daytime temperatures are above 50 degrees. You can find lots of good advice for seed starting and transplanting in the VCE publication Plant Propagation from Seed and the February 2021 Garden Shed article How to Start Your Garden Seeds.

Simple seed starting setup. Photo: Ralph Morini

If you are a seed starter, be mindful of the typical last frost dates for your area. In 7a, it is April 15-25. Starting warm weather crops, tomatoes for instance, 6-8 weeks ahead of planting, means starting seeds indoors in early to mid-march, giving them 6-8 weeks to get ready for transplanting outside.

Fruit Growing

If you are a fruit grower, spring fertilization of fruit trees should occur about 3-4 weeks before active growth begins. Scatter fertilizer evenly under the tree, starting about 2 feet from the trunk and extending just beyond the drip line or end of the furthest branches. A soil test should be performed prior to applying fertilizer. For additional information on fruit trees, visit VCE Publication 426-841, "Tree Fruit in the Home Garden."

The optimum time to prune fruit trees is just before they bloom. Pruning allows the tree to direct nutrients to branches that will bear high quality fruit. The object is to remove dead, diseased, or damaged wood. Also, remove shoots that are growing straight up or straight down as neither provides for good fruit development. Growth crisscrossing the center of the tree should be removed as well. A more open tree allows greater light penetration and air circulation, increasing fruit quality and reducing disease and insect pressure. For additional pruning information, visit VCE Publication 422-025, "Physiology of Pruning Fruit Trees."

"Raspberry Bush" by pelennor is licensed under CC BY-NC-ND 2.0

Bramble fruits such as raspberries and blackberries may be planted in mid-to-late March. Plant in moist, well-drained soil containing large amounts of humus or organic matter. For weed control, mulch around newly-planted brambles with a hardwood or softwood mulch. For additional information on how to grow bramble fruit, review VCE Publication 426-840, "Small Fruit in the Home Garden."

Now is the time to plant **blueberry** bushes. Different varieties of blueberries have different requirements for "chilling hours" — the number of days with temperatures between 35° and 45°F. They also require very acidic soil for best growth. It makes sense to make careful choices when acquiring plants. The Garden Shed article Blueberry Cultivation in the Home Garden offers further guidance.

If you have established blueberry plantings, the publication Pruning Blueberries from the Maryland Extension offers excellent pruning advice.

I hope this information provides guidance and motivation to help you get things going. It's great to be out in the garden again. See you next month.

Resources:

Virginia's Home Garden Vegetable Planting Guide and Recommended Planting Dates," Va. Coop. Ext. Publication 426-331, http://pubs.ext.vt.edu/426/426-331/426-331.html

"Tree Fruit in the Home Garden," VA Coop. Ext, Publication 426-841, https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/426/426-841/426-841_pdf.pdf

How to Grow, Harvest, and Preserve Culinary Herbs

By Patsy Chadwick | March 2021-Vol.7, No.3

Growing your own herbs is a practical and economical way to produce fresh, nutritious seasonings for the kitchen all year long. Besides their known health benefits, herbs add flavor, texture, aroma, and visual appeal to many of our favorite foods. The combination of aromatic basil and sun-ripened tomatoes, for example, is a marriage made in heaven. A few basil leaves tossed into a tomato sauce add a layer of taste and nuance that can elevate the sauce from ordinary to sublime. The distinctive anise-flavor of tarragon, a common ingredient found in French cuisine, can take green beans to a whole new level of gustatory delight. The warm, earthy notes of marjoram, paired with lemon and olive oil, make an extraordinary marinade for lamb. And what would pickles be without dill to give them that extra zing.

In her book entitled *Edible Landscaping*, Rosalind Creasy defines an herb as “a useful plant whose leaves, blossoms, or stems are used as an ingredient in cooking, dyes, cosmetics, medicine, or a combination of these applications.” Plainly, with so many possible uses for herbs, there’s a lot that can be said about them. But for the purposes of this article, the discussion is, of necessity, limited to their culinary aspects.

Before we move on, it's important to distinguish between an herb and a spice. While both come from plants, herbs come from the green leafy parts of plants, including the leaves, blossoms, and some stems, whereas spices come from the dried bark, roots, buds, seeds, fruits, or berries of tropical plants and trees.

For best success with growing herbs, it helps to know whether the plant is an annual, biennial, or perennial species.

Basil is an example of an annual herb. Photo: Pixabay

Annual herbs, such as basil, chervil, dill, cilantro, fennel, marjoram, and summer savory, complete their entire life cycle in one growing season and then die. They must be planted each year from seed.

Biennial herbs, such as angelica, caraway, parsley, sage, stevia, and watercress, complete their life cycle in 18 to 24 months. They develop foliage in the first year of growth. In their second year, they develop flowers and set seed, which completes their life cycle. Like annual herbs, biennial herb species must also be grown from seed.

Chives are an example of a perennial herb. Photo: Pixabay

Perennial herbs, such as chives, mint, oregano, rosemary (moderately hardy in Zone 7), sage, tarragon, thyme, and winter savory, develop their foliage, flowers, and seeds in one growing season and then go dormant for the winter. In spring, they regrow new foliage from their crowns.

Perennial

herb species can be grown from seed or propagated from stem cuttings and root divisions.

HOW TO GROW HERBS

Most herbs are undemanding in their cultural needs. Here are some basic guidelines for growing them:

- **Soil** – Herbs grow in any good garden soil with a pH between 6.5 and 7.0 – that is, nearly neutral. The soil need not be highly fertile. In fact, highly fertile soil can produce excessive foliage with poor flavor. To prepare average soil for planting herbs, incorporate plenty of compost to lighten heavy soil and improve drainage. Once that's done, make the planting surface as smooth as possible in preparation for sowing seeds.
- **Drainage** – Other than mint, angelica, or lovage, which like fairly moist but well drained soil conditions, few herbs thrive in wet soil. In fact, many of our commonly grown herbs, such as sage, fennel, rosemary, thyme, and winter savory, evolved in drier climates and tend to do well in soil that is allowed to go dry between waterings. If drainage is a problem, try growing herbs in a raised bed or a container.
- **Sun Light Requirements** – Most herbs thrive best in full sun. The oils, which account for an herb's flavor, are produced in greatest quantities when the plant receives 6 to 8 hours of sunlight per day. Some herbs, such as cilantro, mint, or tarragon, will tolerate light shade, but their quality and taste will not be as good.
- **When to plant –** Sow herb seeds in your garden after the soil warms up in spring and after all danger of frost has passed. If you prefer to start seeds indoors to get a jump on the growing season, sow them in pots or flats in late winter (February/early March) and give the emerging seedlings a sunny window. As a general rule, sow herb seeds at a depth of twice their diameter. TIP: Some herbs, such as dill, cilantro, and fennel may not transplant well and should be sown directly in the garden.
- **Pests and Diseases** – Fortunately, herbs are not bothered by many insects and diseases. Spider mites sometimes damage herbs in hot, dry weather. Aphids may pose another threat to certain plants, such as dill and fennel, under the right conditions. A sharp spray of water from a garden hose is generally all that is needed to dislodge your unwelcome visitors to the herb garden. If you notice caterpillars feasting on your parsley, dill or fennel, they are probably the larvae of Black Swallowtail butterflies. Just leave the caterpillars alone and plant extra herbs to compensate for any you might lose to this beautiful member of the lepidoptera family.
- **Planting Strategies** – Herbs may be planted in a dedicated bed, or they may be interspersed throughout your vegetable garden. But there's no rule that says you must confine your herbs to the vegetable garden. Some gardeners enjoy tucking herbs, such as common chives, basil, creeping thyme, or variegated sage, throughout their ornamental gardens, container gardens, or window boxes. Their blossoms attract pollinator insects, their pungent scents and tastes help deter browsing deer, and the foliage of some herbal species provide exotic contrast and interest.
- **End of Season Care –** Guidelines for end of season care vary depending on what type of herbs

are being grown. Dead or dying annual herbs should be pulled up and any fallen plant debris cleaned up at the end of the growing season. Most perennial herbs can be cut back to the ground after a freeze. First-year thyme plants are an exception that should not be cut back. For more mature thyme plants, cut back about a third of the older, woodier stems by half, which will generate new growth in the spring. Note: Rosemary is only moderately hardy in Zone 7. If in doubt, dig up the plant, re-pot it, and overwinter it indoors.

WHAT TO DO WHEN HERBS BOLT

Bolting is a survival mechanism that some plants activate when they are nearing the end of their life. This process is often triggered by temperatures in summer that are hotter than the plant can comfortably tolerate. The objective of bolting is to carry on a plant's genetic line by redirecting energy from leaves to the development of seeds. When bolting occurs, the plant abruptly elongates, the new foliage may change shape and texture, and the plant stems may become woodier. For some herbs, bolting alters the taste of the foliage, making it taste bitter and less flavorful.

The good news is that there are several strategies for delaying or preventing bolting and may help prolong the life span of the herb:

- Harvest herbs frequently. This removes growing points that might otherwise bolt or develop into flowers.
- Plant herbs in spring or early fall when temperatures are cooler.
- Mulch around the plant to keep the root zone cooler.
- If you must fertilize your herbs, apply a fertilizer with a low phosphorus content. Phosphorus triggers flower development.
- Look for herb selections that have been bred for delayed or slow bolting.

Some herbs, such as basil and mint, develop flowers instead of bolting — with no impact on flavor. For those herbs, remove the flower buds as soon as you see them developing. Cut the stem back to just above a set of leaf nodes. The flowers on other herbs such as thyme, marjoram, and oregano are edible but don't have much flavor. The blossoms on chives do have flavor and are often eaten raw in salads or used for garnishes.

GROWING HERBS INDOORS

Herbs are wonderfully versatile and resilient. In addition to thriving outside in the garden, they may be grown indoors or in container gardens on your patio or porch. Herbs grown indoors require the same conditions as those grown outside. They need as much sunlight as you can manage to give them and a good quality growing medium that drains well. If you don't have a sunny south or west window for your herbs, consider supplementing available light with a grow lamp or fluorescent lights. Keep in mind that herbs grown indoors are not as productive as ones grown outdoors, but there's a certain sense of satisfaction to be gained from harvesting herbs from your windowsill on a chilly winter's day. To learn more about growing herbs indoors, see Susan Martin's article entitled Be Inspired with Indoor Herb Gardening in the December 2020 Issue of *The Garden Shed*.

HOW TO HARVEST HERBS

Although herbs may be harvested at any point during the growing season, for best flavor, harvest when the oils are at their peak. This is generally when flower buds are just starting to open. Mints are an exception to this rule. Their flavor peaks when they are in full flower.

To harvest herbs, cut them after the dew dries on a sunny morning. This is when the oil content is at maximum. The harvesting method depends on whether the plant is an annual or a perennial. To harvest leafy **annual** herbs, use clean sharp scissors to make a clean cut. This allows the plant to heal quickly and helps prevent the spread of disease. Annual herbs can be cut back quite severely. Make the cut just above a leaf or pair of leaves on stems that are about 4 to 6 inches long. To harvest a **perennial** herb, cut only about a third of the top growth or remove just the leafy tips, depending on the herb.

For herbs that are being grown for their seeds, don't harvest the leaves. Instead, allow the plant to mature fully and then harvest the seeds once they have matured and turned brown. Cut the seed heads and place them in a paper bag. Once the seeds drop off into the bag, spread them out on a drying rack to allow them to dry thoroughly before storing them in airtight containers.

HOW TO PRESERVE AND STORE HERBS

Preserving the herbs you grow yourself is really quite easy, but, if you're new to the process, it may take a little experimentation to figure out which technique works best for you. The techniques described below for preserving and storing herbs may take some of the guesswork out of the process.

Methods for Drying Herbs

Drying is the most common method of preserving the herbal bounty. However, this method doesn't work for all herb species because they vary considerably in water content, essential oil levels, and propensity to mold. For example, delicate leafy green herbs, such as basil, cilantro, chervil, or ferny herbs such as dill and fennel don't hold up well to being dehydrated. They respond better to freezing rather than drying. Sturdier, woodier herbs such as bay, oregano, rosemary, sage, and thyme have less moisture in their leaves and tolerate being dried without much loss of flavor. Keep in mind that dried herbs are generally best if used within a year.

Herbs being air dried. Photo: Pixabay

Several drying techniques include the following:

- **Air dry** — One of the simplest ways to preserve herbs is to air dry them. This technique has been used for centuries and requires little in the way of supplies or intervention on your part. All you have to do is tie a bundle of herbs by their stems with string, twine or rubber bands and hang the bundle upside down in a cool, dry place with good air circulation out of the sun until they are completely dry. Depending on the humidity in the air, the drying process can take from one to several weeks. To aid the drying process, keep the bundles small. Also, the bundles tend to shrink as they dry, so check them periodically to make sure they are still securely tied. Once the herbs are fully dry, remove the leaves and transfer them to airtight containers for storage.

Another air-drying method involves placing herbs on a clean, food-safe screen or on paper towels on a flat surface. For herbs with small leaves, strip the leaves from the stems **after** they are completely dry and store them. For herbs with large leaves, strip the leaves from the stems **before** air drying them and space them out on the screen or paper towels so that they are not touching. If using paper towels for this air-drying method, they may need to be changed periodically because they can absorb moisture from the drying herbs.

- **Microwave dry** – This is the fastest method for drying herbs. Wash the herbs thoroughly in cool water, swishing them around to remove dust, dirt, and other debris. This is important: pat them completely dry. Otherwise, they may cook rather than dry in the microwave. Remove the individual leaves from their stems. Place the leaves between two paper towels and microwave on full power for 30 seconds. Check the herbs at that point. If they are not dry and crisp, turn the leaves over and microwave them for another 30 seconds. Repeat as necessary until the herbs are completely dry. Cool the herbs completely before storing them in an airtight container.
- **Dehydrate** — If you have a home dehydrator that can be set at a temperature between 95 and 110°F, use it to dry your herbs, especially if you have a large quantity to process. Place the cleaned herbs on the drying trays so that they don't touch. Dry for about two to four hours. TIP: Don't dry herbs together with fruits or vegetables because the moisture contents are different and also because the flavors may intermingle.

How to Store Dried Herbs

Make sure your herbs have dried completely before you store them. If they are crispy and crumble easily when rubbed between your fingers, they are ready for storage. Otherwise, any residual moisture may encourage the growth of mold. Store dried herbs in air-tight containers, such as screw-top glass jars, to preserve their flavors. Baby food jars are ideal for this purpose as well as saved jars that were previously used to hold herbs and spices.

In general, dried herbs keep well for up to a year. You may store them whole or crumble them when you pack them in jars. However, keeping the herbs whole is preferable because they retain their oils and flavor longer. TIP: Dried herbs will last longer if you store them in a cool, dry, dark place such as a cabinet or drawer away from heat and light.

Methods for Freezing Herbs

While drying herbs is the most common method for preserving the summer bounty, freezing them is another favorite preservation method. It's fast, easy, and a way to retain much of the taste, aroma, and nutritional value of many herbs. After harvesting herbs, wash and dry them completely. At this point, you have several freezing methods, depending on how you plan to use the herbs. Regardless of which method you choose, frozen herbs should be used within six months for best flavor.

- **Individual leaves** – Strip the leaves off the stems, spread them in a single layer on a cookie sheet, and place in the freezer. This allows them to flash freeze without clumping together. Once the leaves are frozen, place them in an airtight container or freezer bag and label and date the container. If using a freezer bag, remove as much air as possible before sealing it. This works well for herbs such as basil, chives, oregano, mint or tarragon and allows you to remove as many individual leaves as you need for your recipe. Just remember that they will be limp once they are defrosted.
- **Whole stems** – Just as with individual leaves, freeze whole sprigs in a single layer on a cookie sheet. Then transfer the frozen springs to an airtight container. Label and date the container (or plastic bag) and store in the freezer for up to six months. This method allows you to remove a sprig at a time and is a good way to preserve hardier herbs such as rosemary, thyme, or sage.
- **Freeze in Water** — Some tender herbs can be chopped or left whole, packed into ice cube trays, covered with water and frozen. Once frozen, transfer the cubes to an airtight container for storage in the freezer. This method works well with basil, cilantro, mint, or parsley and allows you to use single servings of the herb in sauces, soups, stews, or other meals as needed. TIP: Think about how you plan to use the herb. For example, if you place one tablespoon (or

whatever measure makes sense to you) of herbs per cube, you will know automatically how much is available when you get ready to use the cubes.

- **Freeze in Oil** – Some herbs work well frozen in oil for use in soups, sauces, or other meals for which the oil would normally be used. Basil is a prime example of this method, but other herbs such as oregano or thyme also work well frozen this way. Combine the fresh herbs with enough olive oil to moisten and pulse in a food processor to blend. A couple of tablespoons of oil to one cup of herbs is a good ratio but use your judgement to adjust. Transfer the mixture to an ice cube tray, freeze, and then transfer the frozen cubes to an airtight container for long-term storage. Another way to do this is to remove leaves from stems, leaving them whole, and then place them in the ice cube tray. Cover the leaves with oil and freeze.
- **Rolled Herbs** – If freezer space is at a premium, here's a space saver tip for you. Place herbs in a freezer bag and tightly compress them so that they are at the bottom of the bag. Press out the air, seal the bag, roll the bag around the herbs, secure it with a rubber band and then freeze. Flat leaf herbs such as parsley or sage are good choices for this method.

SUMMARY

If I were to name the most commonly grown culinary herbs, the list would no doubt contain the usual parsley, sage, rosemary and thyme. But there are so many other choices. All of them are easy to grow and require little in the way of care. Herbs can be grown anywhere – in the vegetable garden, in containers on the porch or patio, or on a sunny windowsill in the kitchen. They can even be tucked among your flowers in the ornamental garden. Herbs are meant to be harvested regularly. The more you use, the more you get. And at the end of the growing season, they can be dried or frozen and enjoyed all year long. Finally, if you're looking for ideas on how to use culinary herbs, stay tuned — the April 2021 issue of *The Garden Shed* features an article on using herbs to flavor food.

SOURCES

The Virginia Commonwealth Unit of The Herb Society of America website https://www.herbsociety.org/

Herb Society of America's Virginia Commonwealth Unit https://www.herbsociety.org/virginia-commonwealth/

Grow Great Vegetables in Virginia (Wallace, Ira, 2020)

Herbs and Spices (Norman, Jill, 2002)

Homegrown Herbs (Hartung, Tammi, 2011)

Vegetable Gardening in the Southeast (Wallace, Ira, 2013)

"Drying Herbs," Perdue University Extension website

"Care of Herbs," University of Maryland Extension Home and Garden Information Center

"Growing Herbs," Perdue University Extension Publication HO-28.

'Herb Culture and Use," Virginia Cooperative Extension Publication 426-420, authored by Shawn Appling and Joyce Latimer.

"Let's Preserve: Drying Herbs," Pennsylvania State University Extension website, (www.extension.psu.edu)

March Tips for the Ornamental Gardener

By Susan Martin | March 2021-Vol.7, No.3

March is a fantastic month, but it does require some resilience. The sporadic return of wintry weather can be disheartening, even when we know spring is coming. Each warmer day makes it hard for us to resist running straight out to the garden. Tramping around in soggy gardens, however, is not good for the soil. Lime spreaders, wheelbarrows, and other equipment will create compaction. What garden tasks can we do early in the season to celebrate the return of spring?

- Keep **weeding** winter annual weeds such as chickweed, henbit, purple deadnettle, hairy bittercress, and groundsel. See this link to help with weed identification.
- Redefine **bed edges** to keep grass from growing into flower beds.
- **Seed new lawns and do repairs after the land has drained.**
- In late March, **cut back perennials,** such as coneflower, ageratum, and sedum that were left standing over the winter.
- **Cut back ornamental grasses** before they start to display new spring growth.
- Spring is the ideal time to **divide many perennials. For detailed instructions, read this month's feature article, Guidelines for Dividing Perennials.**

- Some perennials are late getting started in the spring; mark the spot in some way so you do not inadvertently plant over them. If you didn't mark them in the fall, or take photos, make a note to mark their locations next year.
- 6-8 weeks before the expected last frost, **direct-sow or start indoors** annual flowers that thrive in cool temperatures. Examples include: calendula, love-in-a-mist (*Nigella damascena*), nasturtium, sweet alyssum (*Lobularia maritima*), and larkspurs. Check the seed package to get a better idea of how long the plants need to germinate and mature sufficiently before planting outdoors. NOTE: In recognition of climate change effects, the Cooperative Extension has redrawn the Hardiness Zone map for Virginia. Albemarle County has been moved from the Mountain to the Piedmont region in zone 7a, effectively **changing our expected final frost date from May 10-15 to April 15-25**.
- **Houseplants** will enjoy a spring cleaning. Wash off their leaves, trim off brown edges, remove yellowing leaves, and make sure the soil surface is clear of debris. Liquid fertilizers allow you to more precisely add nutrients. For example, you can increase feeding in the spring when the plant is sending up new growth. Slow-release fertilizers are coated in time-release shells that slowly leach nutrients into the soil. A single application can last between four and ninth months. Always research plant requirements to learn about their specific nutritional needs, and follow fertilizer package directions.

SPRING PRUNING

- Many early spring flowering trees and shrubs begin to break out of dormancy in late February with a beautiful flower display. These **early spring bloomers develop blooms on old wood** (that is, they formed flower buds during the previous year's growing season). Pruning them in late winter/early spring removes these flower buds. **Wait to prune until AFTER all flowers have faded.** Examples include: azalea, daphne, fothergilla, forsythia, spring-blooming hydrangea, lilac, spring-blooming spirea, viburnum, pussy willow (*Salix discolor*), and spring-blooming witchhazel *(Hamamelis vernalis)*. **If you're looking forward to seeing spring blooms, don't prune.**
- **Shrubs that bloom later in the season bloom on new wood, and can be pruned in March.** Examples include: beautyberry (*Callicarpa americana*), butterfly bush (*Buddleia)*, chaste tree (*Vitex*) summersweet (*Clethra*), summer-blooming hydrangea, St. Johnswort (*Hypericum*), and summer-blooming spirea.
- March is a good time to **prune evergreen shrubs** such as arborvitae, boxwood, cherry laurel, juniper, and yew.
- If you're wondering about the right time to prune a particular shrub, consult the **Shrub Pruning Calendar** published by the Va. Cooperative Extension, Coop.Ext. Pub.No. 430-462. For detailed instructions on **how to prune shrubs**, review Va.Coop.Ext. Pub. No. 430-459, and be sure to read A Pruning Primer/Garden Shed 2020.
- Pruning of trees should be completed **before** growth occurs. Trees should not be pruned while the new leaves are growing. For best tree health, prune only 1/3 of tree at a time. Prune dead, damaged, or diseased branches as well as any cross branches, never the leader branch. For detailed advice, read The How & When of Pruning Trees/Ask a Master Gardener 2020.
- Crepe myrtle is an example of a summer-blooming tree that should be pruned in February/March. For more about this, see How to Prune Crape Myrtles/Garden Shed 2020. You may also want to view this short video from LSU AgCenter on how to prune crepe myrtle so that it retains its natural shape, looks beautiful, and remains healthy.

FERTILIZATION

The best way to know how much to fertilize, and what kind of fertilizer to use, is to **get a soil test.** For help on how to do this through the Virginia Cooperative Extension, see this link. Soil testing should be done about every three years.

Perennials

Perennial plantings can rob the soil of its natural fertility. However, do not fertilize perennials heavily. If a perennial bed is amended with compost, further fertilization may not be necessary, which will be shown by a **soil test.** If additional fertilization is indicated, a light fertilization program using a 5-10-5 if available, or a balanced fertilizer such as 8-8-8 or 10-10-10, will provide a continuous supply of nutrients to produce healthy plants. **Spread fertilizer in small rings around each plant in March or early April when the plant breaks ground.** Avoid the crown and foliage. Repeat twice at 6-week intervals. This should be enough to carry plants through the summer. NOTE: Plants that are native to your particular locale, and which are suited to local environmental conditions regarding moisture, pH, and soil type, will likely need less or no additional fertilization.

Woody Plants

Generally speaking, the best time to fertilize woody plants is around the time they begin to grow actively. Most shrubs make active growth in the spring and early summer; **it is good to fertilize them once around March or April.** Some shrubs are described as preferring acid or alkaline soil, and there are fertilizers made specifically for plants that prefer acidic soil. Azaleas are an example of a shrub that prefer acidic fertilizers. A general fertilizer can be used as well. Look up fertilization recommendations specific to each plant. NOTE: As with perennials, shrubs that are native to your locale and suited to your environmental conditions, will likely need less or no additional fertilization.

Bulbs

Different sources give different recommendations for **when to fertilize bulbs,** discussed below. A general recommendation is to **avoid using high-nitrogen fertilizers;** instead, use a balanced fertilizer, such as 8-8-8 or 10-10-10, or a fertilizer made especially for bulbs. Avoid getting fertilizer granules on the foliage; for dense plantings, wash off foliage with a hose. The most important step is to first create a healthy soil by mulching with compost or well-composted manure to enrich the garden soil.

> *Timing*
>
> Virginia Tech recommends using **two spring applications** of a balanced fertilizer at a rate of 3 lbs. per 100 sq. feet. The first application is done when foliage first appears; the second is done after the bulbs have bloomed.
>
> According to “The Bulb Blog” by the commercial bulb nursery, Brent and Becky’s, fertilizer should be added to the soil in the fall for fall-planted bulbs, and in the spring for spring-planted bulbs.
>
> Another recommendation from *The Garden Shed* article, “Spring-flowering Bulbs,” is to fertilize in the spring after the flowers fade, and again in the fall at about the same time as you would plant new bulbs.
>
> When considering these different recommendations, you may need to consider how practical it will be in the fall to locate your spring-blooming bulbs. If you have a **bulb garden with mass plantings,** you can certainly **spread granular fertilizer in that garden in the fall. If your bulbs are scattered throughout your gardens, however, it is more practical to aim for spring fertilization after**

the foliage first appears. The option to fertilize in both fall and spring for a bulb garden seems feasible. The decision to choose one or two fertilizations in spring may be **based on the vigor of your spring flowers.**

SPRING LAWNCARE

These tips have been provided by **The Healthy Virginia Lawns (HVL) program,** a joint venture between the Virginia Cooperative Extension Master Gardeners and the Department of Conservation and Recreation. The program provides science-based lawn fertilization recommendations and other best management practices for homeowners, through site visits done by a trained Extension Master Gardener volunteer. For additional information and to fill out an application, please email one of the project coordinators, Melissa King or Khosro Aminpour, at healthylawnsalbemarle@gmail.com.

Fertilization

Before any fertilization program is adopted, **a soil test should be done, at least every three years.** See this link for information on soil testing. Homeowners frequently ask about using the convenient, **widely available "step" programs** developed for lawns throughout the season. Be mindful that the **levels of nitrogen contained in the mid-spring and summer steps in the program often exceed the recommended levels** that cool-season turfgrasses can efficiently utilize in the spring and summer months. Another option for selecting fertilizers for spring treatments on cool-season grasses is to **choose products that contain 50 percent or more water-insoluble nitrogen (often called "slow-release" nitrogen).** Slow-release nitrogen is made available to the plant slowly either by way of controlled chemical or microbial decomposition. This provides a sustained growth response without a flush in shoot growth at the expense of the roots.

Keep in mind that, in most cases, fall is the ideal time for lawn fertilization. Turfgrass Frustration in Central Virginia/Garden Shed.

Weeds

Many of these step programs contain herbicides for weed control. Many formulations of "weed-and-feed" materials (products with a preemergent herbicide impregnated on a fertilizer carrier) are popular in spring lawn applications. If you select weed-and-feed materials with high percentages of nitrogen, choose sources that are predominantly slow-release nitrogen (as indicated on the label). Summer annual weeds (crabgrass, goosegrass, foxtail, etc.) are the most common targets for preemergent herbicide treatment in the spring, but many other grass and broadleaf weeds also germinate as soil temperatures warm and days grow longer. In mature turf, applications of broadleaf herbicides can be made as soon as the weed is actively growing. Typically, this will be when air temperatures are higher than 70°. Apply preemergent herbicides for crabgrass and other summer annual weeds when daffodils, forsythia, and dogwoods are blooming prolifically. If the primary weed problem consists of winter annual plants (weeds such as henbit, chickweed, or geranium) that have already flowered, then the herbicide will not reduce future populations since the weeds have completed their life cycle.

For more detailed instructions on issues such as applying herbicides when overseeding is also planned, see this article from Virginia Cooperative Extension, "Spring and Summer Lawn Management Considerations for Cool-Season Turfgrasses."

For information on warm-season grasses see this article from VCE, "Spring and Summer Lawn Management Considerations for Warm-Season Grasses."

For more information on how to adopt a more ecofriendly approach to lawncare, see past articles from *The Garden Shed*, "Responsible Lawn Care in the Era of Climate Change" and "Beyond the Lawn: Imagine the Options."

COTTONY CAMELLIA SCALE ON HOLLIES

Cottony camellia scale Photo: Brian Kunkel, U of Delaware, CC by 3.0 U.S.

Late last spring/early summer, the holly bushes in our foundation plantings on either side of our front entrance were covered with wasps. It was a treacherous walk into the house for a couple of weeks. After researching the problem, I discovered that these white pests are cottony camellia scale *(Pulvinaria floccifera)*, **a soft scale in the shape of rod-like disks,** commonly found on holly. The eggs hatch in late May through early June and the tiny new crawlers feed along the veins on the lower leaf surface. The scales develop through the summer and overwinter on twigs and branches. Usually a holly can tolerate cottony camellia scale without suffering much damage.

A large population of cottony camellia scale may, however, require treatment. If your holly had major damage last year, you can spray **a light-weight dormant horticultural oil in early spring to kill eggs that have overwintered.** You can also use **insecticidal soap** early in the life cycle when the scales are in the crawler stage, usually in early-mid June (VCE recommends June 10-20.) Be sure to cover the bottom of leaves and interior leaves so that you cover all the eggs and crawlers while they are active. Once the scale has matured, horticultural oils and soaps will not be effective because the insects form a waxy coating to overwinter. Like most soft scales, cottony camellia scales suck out sap and excrete honeydew, a sweet, sticky liquid in which dark sooty molds often grow. **The honeydew attracts wasps and other insects. The presence of black sooty mold will indicate a high population that may require treatment, but keep in mind that** cottony camellia scale can usually be tolerated with no noticeable damage to the plant. It is when their populations become large and the plant strength is reduced that scale needs control. Or, when wasps become a problem!

INVASIVE SPOTLIGHT – GARLIC MUSTARD (GM)

Garlic mustard (*Alliaria petiolata*) has displaced native wildflowers such as spring beauty, wild ginger, bloodroot, trillium, and toothworts in many forested areas. This is because GM grows so vigorously in early spring and fall that it outcompetes them. GM is allelopathic, which means it releases toxins into the soil. These toxins hinder the growth of other plants species, and inhibit forest tree regeneration. Several butterfly species have become threatened because their wildflower hosts are now rare due to incursion by GM. Other butterflies are endangered because they lay their eggs on GM instead of on their host plants, and GM's leaves poison their larvae. This plant is **easiest to recognize after it produces white flowers in early April.** Its foliage is also distinctive, and all parts of GM emit a strong garlic odor. This plant is a biennial that completes its entire lifecycle in two growing seasons. **Its seeds germinate any time from spring to fall.** Be mindful of how early GM blooms, and how quickly it sets seed. **It is essential to remove garlic mustard before it sets seed.** Once the flowers form seeds, any disturbance sends the seeds flying. Newly germinated seedlings may not be obvious at first because they may be buried in leaf litter. Always bag GM after pulling. Even after being pulled from the ground, a second-year GM plant continues to grow, flower, and set seed! See the factsheet from Blue Ridge PRISM (Partnership for Regional Invasive Species Management) for information on how to identify and eradicate this invasive. Blue Ridge PRISM also recommends this article from University of Massachusetts Amherst.

Garlic Mustard Photo: Tony Atkin, Wikimedia Commons

SOURCES

Tasks and Tips articles from past March issues of *The Garden Shed*:
2020, 2019, 2018, 2017, 2016

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https://www.pubs.ext.vt.edu/430/430-459/430-459.html

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https://hgic.clemson.edu/is-it-time-to-prune-my-trees-and-shrubs/

"Gardening by Month," Missouri Botanical Garden,
https://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardener/advice-tips-resources/gardening-by-month/march.aspx

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https://albemarle.ext.vt.edu/content/dam/albemarle_ext_vt_edu/files/hort-tip-sheets/4-14-april-tips-perennials.pdf

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"Spring Weeds," University of Maryland Extension, https://extension.umd.edu/hgic/topics/spring-weeds

"Common Turf Weeds." Virginia Cooperative Extension, https://www.pwcgov.org/government/dept/vce/Documents/Common%20Weeds.pdf

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"Cottony Camellia Scale – Shrubs," University of Maryland Extension, https://extension.umd.edu/hgic/topics/cottony-camellia-scale-shrubs

"Rampant and Most-feared Invasive: Garlic Mustard," Blue Ridge PRISM, https://blueridgeprism.org/wp-content/uploads/2017/06/Garlic-Mustard-Factsheet-5-27-17-VDOF-W-Box-FINAL.pdf

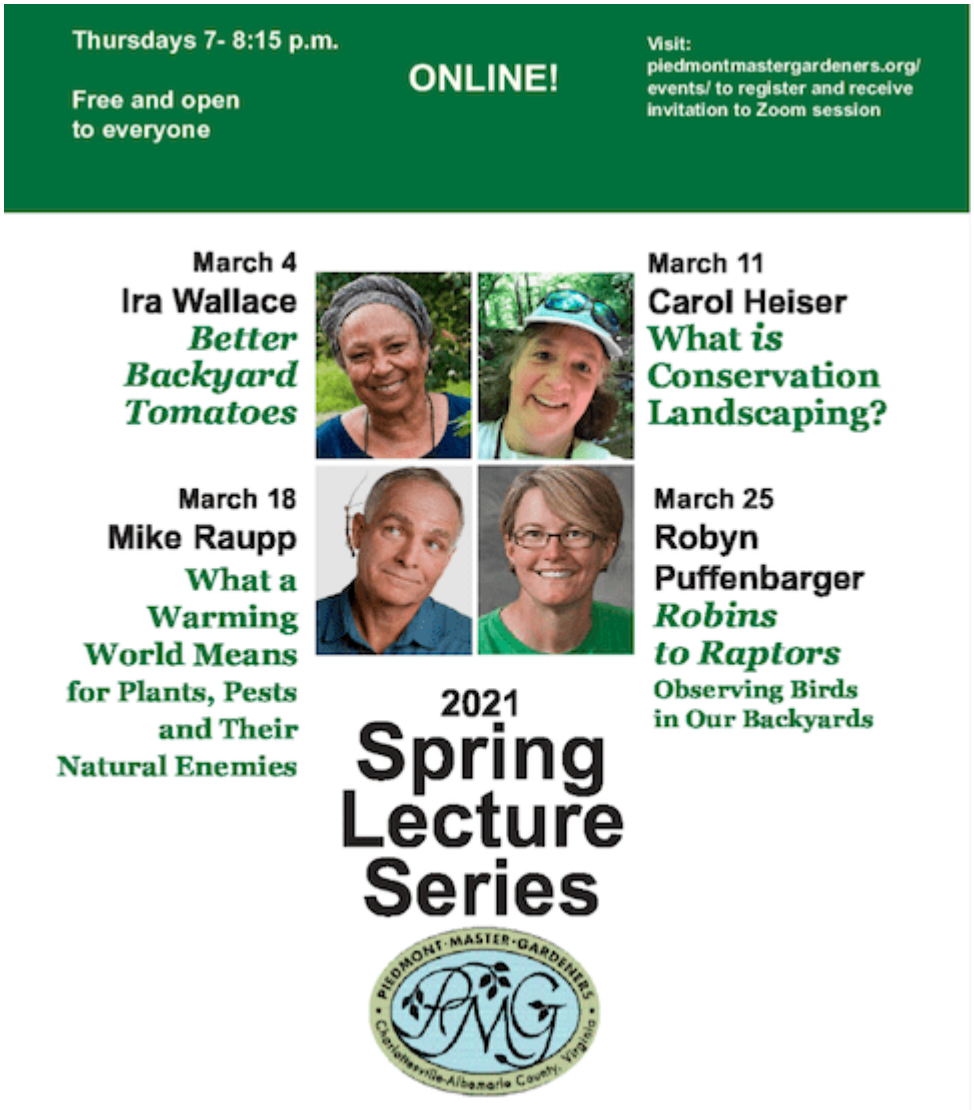
"Here's the Dirt: The Newest Recommendations for Garlic Mustard Management," ScholarWorks at UMass Amherst, https://blueridgeprism.org/wp-content/uploads/2019/10/Heres-the-Dirt_-The-Newest-Recommendations-for-Garlic-Mustard-Ma.pdf

Upcoming Events

By Susan Martin | March 2021-Vol.7, No.3

PIEDMONT MASTER GARDENERS
SPRING LECTURE SERIES 2021 – VIRTUAL AND FREE
Thursday Evenings in March
March 4, 11, 18, 25
7:00 – 8:15 PM

Take advantage of this free educational opportunity just in time for spring! Check the Piedmont Master Gardeners Events page for more information, and to register for one session or more.



PIEDMONT MASTER GARDENERS
VIRTUAL VIA ZOOM AND FREE
Garden Basics Workshop: "Starting a Vegetable Garden"

Saturday, March 20
2:00 – 3:30 PM

Learn how to create a beautiful vegetable garden.

Fill out our registration form by 5:00 PM, March 15, to attend this Garden Basics workshop. An invitation for this Zoom presentation will be sent to your email address on the morning of March 20th.

Additional Virtual Garden Basics Workshops:

"Herb Gardening-Tips on Growing & Design"
Saturday, April 17
2:00 – 3:30 PM

"Tomatoes & Tomato Diseases"
Saturday, May 15
2:00 pm – 3:30 PM

Although these workshops are free, registration is required. See this **LINK** for more information and to register.

VIRGINIA NATIVE PLANT SOCIETY
2021 ANNUAL WORKSHOP VIA ZOOM in TWO PARTS – -FREE
"Earth's Climate: Present, Past, and Future"

The 2021 Workshop will focus on climate changes at different periods of time, how these changes might relate to our current climate, and inform our thoughts about today's changes. Enjoy two evening workshops and find out how both the present and the past can inform our understanding of climate and climate change.

Tuesday, March 2 (Part 1)
Tuesday, March 9 (Part 2)

5:30 PM: Zoom Meet & Greet, Welcome and Introduction.
6:00 PM and 7:00 PM: Two consecutive presentation each evening.
See this **LINK** for program descriptions, and to register.

GROW NATIVE SERIES – VIRTUAL
THE PLANT VIRGINIA NATIVES PARTNERSHIP*
ALSO SPONSORED AND HOSTED BY LEWIS GINTER BOTANICAL GARDEN AND BLUE RIDGE PRISM
SIX LECTURES, FRIDAY, MARCH 5 – TUESDAY, MAY 6
6:30 – 8:00 PM

Learn about why and how to use native Virginia plants to your landscape in this series offered by the Plant Virginia Natives partnership. **$10 covers the entire series.** Attend each program or pick and choose your topics. These lectures will be on Tuesday evenings, except for the opening keynote lecture by Doug Tallamy on Friday evening, March 5. See this **LINK** for more information and to register. Look for information on another series to be offered this fall to help you continue your efforts and prepare for the winter.

*The Plant Virginia Natives Landscaping with Natives webinar series is coordinated and funded, in part, by the Virginia Coastal Zone Management Program through grants from the NOAA Office for Coastal Management to the Virginia Department of Environmental Quality.

LEWIS GINTER BOTANICAL GARDEN
"PLANNING AND DESIGNING A KITCHEN GARDEN"
Saturday, March 6
10:00 – 11:30 AM

Mark Ragland covers planning, preparation, and plant selection, in this virtual class conducted via Zoom. See this **LINK** for more information, fees, and to register.

NOTE: Lewis Ginter Botanical Garden is open for visitors Wednesday through Sunday but tickets must be purchased online in advance. See this **LINK** for more information on visiting.

NEW DIRECTIONS IN THE AMERICAN LANDSCAPE (NDAL)
"Ecology-Based Landscapes: A Virtual Education Series for Home Gardeners & Educators"

Thursday, March 11
1:00-2:30 PM EST
"The Future of the Past"

Friday, March 19
1:00-2:30 PM EST
"Native Meadows: Let's Get Real"

Tuesday, March 23
1:00-2:30 PM EST
"Close Encounters With Nature: Native Design in the Residential Landscape"

"Prairie-side" Chats
Monday, March 15
1:00 – 2:00 PM EST
Larry Weaner Interviews Darrel Morrison, FASLA

See this link for more information and to REGISTER.

LOUDON COUNTY MASTER GARDENERS
11th ANNUAL GARDENING SYMPOSIUM – VIRTUAL
"PLANT, NURTURE, GROW: GARDENING IN RHYTHM WITH NATURE"
Saturday, March 20
9:00 AM -3:15 PM

Join us for a full day of online inspiration, information, and insight! This webinar will be recorded so you can watch all of it, some of it, or none of it on Saturday, March 20, and then access the recording for a 10-day-period after the event. Fee is $40. For more information and to register, see this **link**.

- Ginger Woolridge**,** Landscape architect, garden consultant, and writer
  Woody Natives: Making Quick and Confident Choices
- William Cullina, Otto Haas Executive Director, Morris Arboretum, University of Pennsylvania
  Sugar, Sex, and Poisons: Shocking Plant Secrets Caught on Camera
- Ira Wallace, Worker/owner of the cooperative Southern Exposure Seed Exchange
  Grow Great Vegetables in Virginia
- Sam Droege, Wildlife Biologist, Patuxent Wildlife Research Center, USGS
  Introduction to the Native Bees of the Mid Atlantic

MT. CUBA CENTER VIRTUAL LECTURE SERIES

Lecture Topics for March include:

- Shade-loving Perennials
- Great Native Plants for Difficult Sites
- IPMs and IPAs
- Clean Composting
- Spring Garden Saturday (3/27)
- Home Landscaping Basics

See this link for a full list of lectures from March to mid-September, lecture dates, and registration. Mt. Cuba Center is a non-profit botanical garden located in Hockessin, Delaware near Wilmington. Its woodland gardens produce some of the most spectacular displays of wildflowers in the mid-Atlantic region. The botanical garden will reopen to the public on **April 1**. **See this link for information on Mt. Cuba's world-famous trial garden and study results.**

ECOLOGICAL LANDSCAPE ALLIANCE
"Focus on Sustainability"
Wednesday, March 31
12:00 – 1:00 PM EDT

Foliage & Focal Points: Ideas for Budgets and Gardens of All Sizes

With ideas for budgets and gardens of all sizes, you will quickly gain the confidence and knowledge to transform your own landscape into a cohesive series of eye-catching scenes.

Wednesdays in April, 12:00 – 1:00 PM EDT

Proper Landscaping Planting: Are We Landscaping in a Deficit Model?
Wednesday, April 7
Maximizing Space in the Garden: Creating More of a Good Thing
Wednesday, April 14
Creating Community with Our Insect Neighbors
Wednesday, April 21
Going Underground: Unearthing the Role of Soil Organisms in Plant Health
Wednesday, April 28

See the highlighted session title links for more information and to register.

CHARLOTTESVILLE AREA TREE STEWARDS
FREE Classes via ZOOM Announced for first half of 2021

"Select, Plant, and Care for Trees"
Saturday, March 20
2:00 – 4:00 PM
Register here

"Tree identification by season: Spring"
Tuesday evening, April 13

7:00 – 8:30 PM
Register here

These virtual classes are free**,** but if you would like to attend, we ask that you register. After you register, you will receive an email with a Zoom link a few days before the class.

ADDITIONAL CLASSES

"**Identify and Control Non-Native Invasive Plants**," Sunday, May 23, 2:00-4:00 PM
"Identify trees in summer," Tuesday evening, 7:00-8:30 p.m., June 15.

See this **LINK** for information on when class registration begins.

MONARCH JOINT VENTURE
The 2021 Monarch Conservation Webinar Series
4th Tuesday of the Month *
2:00 PM EST

The Monarch Joint Venture is partnering with the U.S. Fish and Wildlife Service National Conservation Training Center to put on another year full of informative and inspiring webinars on all things monarch. Webinars will be held live on the 4th Tuesday of the month at 2 PM ET. Each webinar will be recorded and for later viewing as well. Check on the session title to register.

March 23rd – Monarchs, Milkweed and Grassland Disturbance

Future Webinar Titles:

- **April 27th** – Western Butterflies: An Overview of Threats and Population Trajectories
- **May 25th** – Monarch Butterfly Reproduction: From Physiology to Behavior
- **June 22nd** – Reinstalling Native Habitat on Private Property in the West
- **July 27th** – Aligning Mosquito Control with Pollinator Protection
- **August 24th** – Conserving Grasslands for Birds and Monarchs
- **September 28th** – Protecting and Restoring California's Overwintering Groves
- **October 26th** – Recovery of the Monarch Butterfly: Federal and State Legislation that can Provide Hope for this Iconic Animal
- **November 16th** – The Monarch Butterfly Fund – Supporting Monarch Conservation in Mexico
- **December 21st** – Eco-literacy and Conservation: The Convergence of Research, Policy and Education

* The November and December dates have been moved to avoid conflicting with major holidays. Please note this list is subject to change. Their events page will have the most up to date information on the webinar series, as well as a calendar of additional monarch-related events, and information on recordings of past webinars.

THE NATURE FOUNDATION AT WINTERGREEN
March Guided Hikes

For information on **guided hikes,** difficulty ratings, and to register, please see this link to the March calendar.

Native Plants for Sale at The Nature Foundation at Wintergreen Greenhouse

725 Beech Grove Road, Roseland, VA 22967
Opening Saturday, April 3
10:00 AM – 4:00 PM

Call 434-325-7452 for more information. Most plants will be outside with limited access to space inside the greenhouse. Masks and social distancing are required. Call ahead for mid-week appointments after April 3. See this **LINK** for directions.

VIRGINIA COOPERATIVE EXTENSION (VCE) VIDEO LIBRARY

VCE offers a variety of **YouTube videos** on topics geared to both beginner and more advanced gardeners. Examples of topics include:

Weed Identification
Basic Entomology and Insect Identification
Soil Testing Lab
Tree Risk Assessment

For these and many more videos that address specific topics or those of more general interest, see this **link**.

A Year of New-Home Landscaping and What I've Learned

By Susan Martin | March 2021-Vol.7, No.3

After l listened to a webinar with Doug Tallamy (2/19/21), expert in insect and plant interrelationships and

author of *Bringing Nature Home* and *Nature's Best Hope*, I started to change my perspective on setting out a new garden design. My original goal for redoing the mid-90s landscape was to use native plantings to create a low-maintenance design, and that's still my goal. I am intrigued, however, by the idea of working with the concept of **productive vs. ornamental**.

This article will focus on several ideas:

- A description of our current landscape and how I want that to evolve
- Staying true to the idea of low maintenance
- Incorporating the concept of productive native plants
- Sharing what I have learned about using databases to select productive plants

CURRENT LANDSCAPE

About one year ago, we moved to a property of 7 acres, with much of that acreage still devoted to growing hay. There were only 8 trees when we moved in: 3 weeping willows; a sad Japanese maple; an ornamental plum and a redbud, both removed; a failing weeping cherry in the center of the circular drive; and a crepe myrtle. The "garden" in the center of the drive had cypress shrubs in addition to the weeping cherry and the property is in full sun. The house is built up on a mound of imported topsoil; the south side of the property is low and very wet; the east, west, and north sides are flatter and dryer, with some seasonal wetness. Our landscape is similar to many new construction sites, although the house is about 25 years old. I think many homeowners might face these same challenges to varying degrees.

Front circle at start of project Photo: Susan Martin

Front circle one year later Photo: Susan Martin

Much of the soil is poor, because all the exposed surfaces such as the center planting area in the circular drive, foundation beds, and tree rings were all covered in white landscape stone. Although the stone is an effective weed deterrent, it doesn't break down and enrich the soil; it doesn't allow for adding any amendments; it compacts the soil; and it heats up plantings to a severe degree in the summer. Removing the landscape rocks was a priority. We then added several species of native trees to provide some shade, to provide privacy on the southern side, to

help soak up the moisture on that same side, and to get the ball rolling on bringing back a healthy ecosystem. River birch (*Betula nigra*), feature photo at the top of this article, was one of the species we chose for the wet area.

SOIL TESTING, pH, AND WORKING WITH SITE CONDITIONS

One of the first things we did was to get a **soil test through the Virginia Cooperative Extension office**. We tested three areas: the front of the house, the back, and the circular "garden" in the driveway. The front and the circular garden had acidic soil with a pH of 6.0. The back yard was even more acidic with a pH of 5.5.

Now let's consider what these pH numbers mean for planting on the property. As the soil test indicated, **our property is very acidic, particularly in the back area.** I recently re-listened to a webinar by Larry Weaner (2020) from New Directions in American Landscaping (NDAL). His presentation addressed **how acidic soil could work in our favor to help create a low-maintenance, native plant landscape.** Grass requires a neutral to basic soil. Grass needs more nutrients to flourish, and basic soil more readily releases nutrients. A pH of about 6.0-7.2 is considered optimal for cool-season grasses. Kentucky bluegrass, one of the most widely used cool-season turfgrasses, grows best when soil pH is between 6.5 and 7.2. To encourage grass in our acidic soil, we would need to add limestone to raise the pH. **A note on pH:** although the differences noted above may not seem significant, there is a ten-fold increase in acidity for every decrease by one whole pH unit. For example, a soil with a pH of 5.5 is ten times more acid than a soil with a pH of 6.5, and a soil with pH of 4.5 is 100 times more acid than the soil with a pH of 6.5.

Many native meadow perennials, on the other hand, can flourish in acidic, low-nutrient soil; they are also drought resistant. Native meadow perennials are suited to our full-sun property. To encourage native perennials over turf, I should add sulfur if the soil is alkaline. But I don't need to add sulfur because our soil is already acidic. I don't need to add fertilizer, because in general, native meadow perennials don't need rich soil. Unlike turf, they also don't require supplemental watering, except while getting established. Native plants have developed an evolutionary history with native insects. This host-plant specialization creates a healthy food web where natural insect predators will reduce the need for insecticides. Conditions naturally favor what I would like to do, which means that maintenance will be lower. I'll be working *with* our conditions, rather than trying to manipulate them into something else.

PLANT CHARACTERISTICS AND LOW MAINTENANCE

Larry Weaner also addressed how to use plant characteristics in the design of low-maintenance landscapes. Before I look at specific plants, I'll consider how to **work with**, rather than against, **the natural behavior of plant groups.**

Root Systems in Maintenance Planning

Plants have either spreading root systems (often shallow, fibrous root systems), or clumping root systems (more compact, growing down more than out, with a tap root). Rhizomatic systems are thick, fleshy *underground stems* that spread outward from the plant like spreading root systems. Rhizomes may be either spreading or clumping.

When considering plant selection for a particular area, it is important to **consider whether plants have a clumping growth habit, or a spreading growth habit.** In general, maintenance may be minimized in a smaller, well-defined garden by using plants that are clumpers, rather than spreaders. Of course, some plants spread slowly, and some spread more aggressively. For larger spaces that you want to fill, spreaders fit the bill.

Suckering shrubs with fringe tree, Chionanthus virginicus 'Dirr' Photo: Susan Martin

From Central to Perimeter Garden Locations

You may want to consider plants with **spreading versus clumping root systems in light of proximity to the house.** It takes time and effort to fight against aggressive spreading when that characteristic is not suited to the site. As you move away from the house, large drifts of spreading perennials or **suckering woody plants** may be exactly what you want. This will reduce maintenance by reducing the need to weed. It is also a great way to expand the plant base without buying new plants for large areas. Therefore, for our circular garden, I would lean towards perennials with clumping root systems. For areas that will be naturalized away from the house, I would lean heavily toward plants with spreading root systems.

In the photo above, the suckering shrubs on the right include Sweet Pepperbush (*Clethra alnifolia* 'Ruby Spice') and Sweetspire 'Little Henry' *(Itea virginica)*, both native to coastal Virginia. *Itea virginica* is **larval host** for the **Spring Azure butterfly**. Bees, butterflies, and hummingbirds use the flowers of *Clethra alnifolia*. These shrubs are planted in a wet area of our landscape.

Using Competition for Selection and Maintenance

Plan a competitive composition of plants so that there will be little open space to allow weeds to thrive. Plant taller plants with spreading roots that will crowd out weeds that need sunlight for seed germination. Plants that spread aggressively will "win" over clumping plants, **but this competition needs time to play out.** If you are gardening close to the house, you may not want to wait for the winners to take control. For these areas, you may want to weed out undesirables. The further you move away from the house, the more patient you may become with allowing competition to produce winners.

Weeding and Disturbance

Weeding is a two-edged sword: we want to avoid herbicides, and so we pull weeds manually. **Pulling,**

however, disturbs the soil. Disturbance creates empty spaces which allows seeds to germinate. Rather than pulling weeds, Larry Weaner favors cutting weeds below the canopy of surrounding plants; this will reduce available sunlight and prevent weeds from germinating. He also advises cutting and applying an herbicide, if necessary, with a paint applicator. Over time, the seed bank will change from weed seed to the native plant seeds.

It Takes Time

Weaner pointed out that low maintenance landscapes are not low maintenance when they're being established. It takes time for plants to work out their natural dominance. It takes time to change the seed bank. You can't just take it easy in the beginning.

ORNAMENTAL VS. PRODUCTIVE LANDSCAPES

Beauty is in the Eye of the Caterpillar

Eastern Tiger Swallowtail caterpillar Photo: Jacy Lucier, Creative Commons Attribution-Share Alike 4.0 International

When we view our landscape as a place where we can set up the right conditions for nature to thrive, our focus shifts from designing ornamental landscapes to **designing productive landscapes.** Doug Tallamy emphasizes that instead of focusing on native plants, we should be focusing on **productive native plants.** How is "productive" defined? **Plants that provide food for caterpillars are productive plants.** Surprisingly, **5% of native plants provide 75% of food for caterpillars.** The most important change we can accomplish as gardeners is to develop landscapes that support caterpillars. Recent research by Doug Tallamy demonstrates that for a place to support a diversity of life, native plant species must represent at least 70% of the biomass in the landscape. Below this critical threshold, food webs collapse and habitats unravel. When designing new areas in our landscape, or adding to existing gardens, 70% is an important guideline. But remember, **within this 70%, some plants are much more effective than others in supporting caterpillars.**

Using Keystone Plants

Tallamy describes the most productive native plants as keystone plants. These species **attract the most caterpillars to our gardens,** which means these plants will contribute the most to our ecosystems. Oaks (*Quercus* spp.) are the royal family of keystone plants. Tallamy has pointed out that there are over 90 species of oaks, including shrub-like oaks and low-growing oaks. Other examples of **keystone genera** include: *Prunus* (cherry), *Salix* (willow), *Betula* (birch), *Acer* (maple, boxelder) and *Malus* (crabapple, apple). He advises us to be "fussy" when selecting plants because insect herbivores are specialists. These insects can develop and reproduce only on those plants with whom they have an evolutionary history. This is why using **locally-native** plants is important. The Native Plant Finder (By Zipcode), described below, lists plants **in order of their productivity,** i.e., their value as keystone plants.

USING DATABASES TO SELECT NATIVES

Selecting the right plants requires a commitment of time and effort, but once the plantings are in place, maintenance will be reduced, and the natural machinery of rebuilding ecosystems will start to whir. There are many websites that provide databases for native plants, but we'll look at these four:

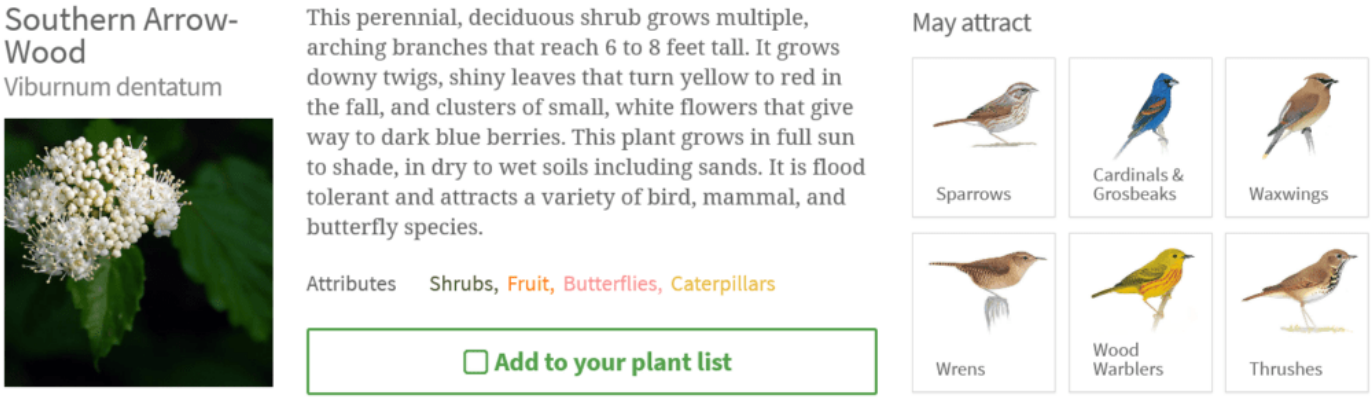
Oak (Quercus) is caterpillar host plant for 513 moths and butterflies Photo: Native Plant Finder by Zip Code

Native Plant Finder (By Zip Code) is a database that gets down to the local level when searching for plants native to your area. Plants can be searched based on category such as trees and shrubs, wildflowers, etc. It does not give plant requirements such as moisture or sunlight. **This resource ranks native plants by the number of butterfly and moth species that use them.** Doug Tallamy is a research partner in this database.

Piedmont Natives Plant Database lets you search by categories such as trees and shrubs, wildflowers, etc., and provides **information on plant needs, plant characteristics, and total number of plants that meet your search criteria.** You can't filter your search based on plant needs or characteristics. It also provides a link to the USDA Database.

The DCR-Department of Conservation and Recreation database lists **plants native to Virginia according to 3 regions: Mountains, Piedmont, and Coastal.** It also allows you to specify plant type, and requirements of light and moisture, plant height, and attraction to bees, monarchs, butterflies, and hummingbirds.

Audubon Native Plants Database By Zip Code, allows you to search for **birds that are often attracted to native plants in your local area.** You can enter shrubs, trees, perennials, grasses, etc. As an example, a search on shrubs in zip code 22901 produced 34 best shrub results out of a total of 450 total results. The birds attracted to each shrub are also listed. For Southern Arrowwood (*Viburnum dentanum*), for example, 18 bird species are listed.

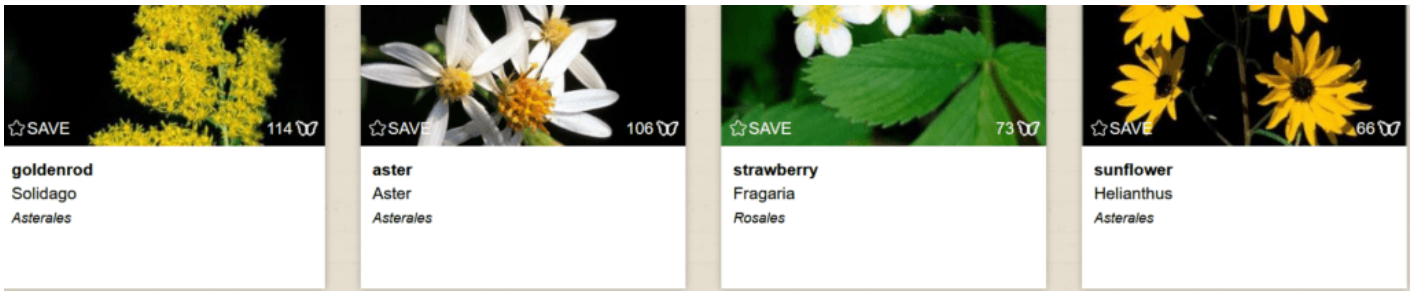


AN EXAMPLE OF USING DATABASES FOR PLANT SELECTION

Wildflowers

I had identified meadow perennials as good candidates for our sunny site. Let's look at the Piedmont Native

Plant Database and see if purple cone flower (*Echinacea*) is native to Albemarle County. It is not; that perennial is native to central to southeastern United States, with some species native to Illinois and the Chicago region. This database does list 178 wildflowers that are native to Albemarle. Let's check the Native Plant Finder(By Zip Code) for wildflowers native to zip code 22901. In this database, native plants are ranked in order of **the number of butterfly and moth species that use them as host plants for caterpillars.** The top 4 species are especially productive: goldenrod (*Solidago*); aster; strawberry; and sunflower (*Helianthus*), and so I add these to my list. Would I also include *Echinacea* among my meadow plant selections? I certainly would as it is one of my favorites, and the seeds are attractive to birds, especially goldfinches, in the winter. **I will continue to use this database to check on the attractiveness of plants to caterpillars.** By emphasizing local wildflowers, I will be sure to provide food for caterpillars that have evolved with native plants local to our area.



Top four wildflowers for zip code 22901, Native Plant Finder by Zip Code

Shrubs

Finding local shrubs that meet our site conditions was less successful. The Piedmont Native Plant Database provides a chart of native plants with a description of plant needs. **A total of 62 shrubs are identified as native to Albemarle County.** I searched the list for shrubs that need full sun, and medium/high moisture. I did this by skimming the list; **there isn't a search function based on sun and moisture requirements.** One plant met these criteria: Swamp rose (*Rosa pallustris*). This shrub likes boggy-to-wet soils in full sun, but it also prefers acidic, organically rich soil. Our soil is not organically rich. There has been no leaf litter enriching the soil in our treeless landscape. I will still investigate swamp rose. Although it's native to Albemarle, it's not native to our local zip code of 22901.

It is difficult to find native shrubs that like both high moisture and full sun, so I decided to be less restrictive, and use a database that defines **Virginia by region, rather than by county.** I searched The DCR-Department of Conservation and Recreation for Virginia using the **Piedmont region as the locale,** and I screened for plant **conditions of full sun and high moisture. This database has easy-to-use search tools.** I found 8 shrubs. Our property has a lot of deer pressure because of the hay fields. Therefore, I decided at this point to eliminate 7 out of 8 shrubs. Ninebark (*Physocarpus opulifolius*) seems to remain a good candidate. It's described as being tolerant of dry-to-wet conditions.

I am confused, however, because although this shrub is listed as an Albemarle County native, it did not surface in my original search based on high-moisture needs or tolerance. When I went back to check, I realized that, although the database shows plant characteristics in general, it didn't supply that information for ninebark, and so I had missed adding the bush to my high-moisture list. Ninebark is listed in the Native Plant Finder based on zip code 22901. That site doesn't include moisture needs or sunlight requirements. It is used as an initial screen for identifying local natives, and as a source for caterpillar productivity. **Ninebark is ranked number 15 in trees and shrubs because it is a host shrub for 31 species of caterpillars.** Sounds good. I plan to give it a try, but I'll look for the **straight species** and **avoid the many**

ninebark cultivars that offer pretty foliage other than green. Although I might like the jazzier colors, caterpillars do not. They seem to like green. One last check at the Audubon database shows that ninebark is attractive to many bird species.

Young Southern Arrowwood (Viburnum dentanum)
Photo: Susan Martin

When I searched on the Native Plant Finder by Zip code 22901, four viburnum shrubs came up, including Southern Arrowwood (*Viburnum dentanum*) and Blackhaw (*Viburnum prunifolium*). Both are listed on the Virginia DCR database for the Piedmont region as growing in **moderate moisture,** and they are in moderate moisture spots in our landscape. I also know from experience that although these shrubs are often listed as deer resistant, they need protection when young or the deer will defoliate them. Also, be mindful that Blackhaw can reach up to 30′ tall at maturity, another characteristic to evaluate in selection and placement.

This shrub search demonstration isn't a nice, neat example; in fact, it's cumbersome. However, I think it's a **good example of how to use the different databases for specific information. It also demonstrates how sensitive the searches are to criteria such as dry, medium moisture, or high moisture. Or, full sun vs. part shade.** Different databases also classify plants as having somewhat different plant requirements. It takes a bit of experimentation!

WORKING TOGETHER

Homegrown National Park is an organization founded by Doug Tallamy and Michelle Alfandari. This fascinatingly simple concept calls on people to make small changes in their landscapes that, over time, together with the efforts of their neighbors, will make a huge change in the health of our ecosystem. It's a way for the little guy to become a hero — who doesn't want to be a part of that! As Doug Tallamy points out:

> *83% of land in the U.S. is privately owned. If we planted native on 50% of private land, we would restore biodiversity…and we can do it starting NOW.*

See Homegrown National Park for information—and inspiration!

SUMMARY

The ecological benefits of planting with natives are well-recognized. This article explores **how to use plant characteristics in designing low-maintenance, native landscapes.** Select **productive native** plants that provide food for caterpillars and attract pollinators. As Tallamy advises, be fussy when selecting plants: 5% of native plants provide 75% of caterpillar food. Rebuilding a healthy ecosystem starts with the **selection**

of keystone plants that are native to your area and suited to your growing conditions. Choosing well-suited plants means lower maintenance. **Become familiar with using native plant databases** that will help you select the right plants. Remember that you're not alone in your efforts. Think of your landscape as one patch in the larger ecosystem of other home gardens.

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Feature Photo: River Birch (*Betula nigra)*, larval host plant for 321 moths and butterflies Photo: John Ruter,

Guidelines for Dividing Perennials

By Patsy Chadwick | March 2021-Vol.7, No.3

Planting an herbaceous perennial is an act of faith. By its very nature, you trust that the plant will return year after year in your landscape. You also trust that it will grow larger and more beautiful with each passing year. But, eventually, you may notice that it has begun to crowd the other plants around it. Or maybe it's not looking as robust as it once did. Maybe the flower stalks are flopping over, causing it to look a little sad. Or maybe it has a dead area in the middle of the crown. So, what does any of this mean? It means your plant is telling you it needs to be divided.

REASONS FOR DIVIDING PERENNIALS

Dividing herbaceous perennials is beneficial for several reasons. It:

- rejuvenates older, tired plants; stimulates new growth, improves flower production, and encourages stronger stems and can prolong a plant's overall life expectancy.
- helps control a plant's size. Perennials can eventually outgrow the space originally allotted to them, resulting in overcrowding.
- is a reliable vegetative propagation method that results in exact duplicates of the original plant in terms of bloom time, flower color, shape, size, and habit.
- is an easy way to increase the number of plants in your garden for free.

HOW OFTEN PERENNIALS SHOULD BE DIVIDED

Guidelines vary on how often to divide perennials. Most of them benefit from being divided every 3 to 5 years. Some perennials, such as chrysanthemums and most asters, may need to be divided more frequently. A few perennials, such as peonies, may not need to be divided at all.

In her iconic book ***The Well-Tended Perennial Garden*** (3d ed.), author Tracy DiSabato-Aust provides four lists of perennials that MAY require division every 1 – 3 years, every 4 – 5 years, every 6 – 10 years, and every 10 years or more. Her lists take much of the guesswork out of how often to divide perennials. However, gardeners may find that plants don't always fit neatly into rigid categories for division purposes. So, when in doubt, simply look to the plant itself for clues.

SIGNS THAT A PERENNIAL NEEDS TO BE DIVIDED

Some gardening experts advise dividing a plant when it's healthy and looking its very best. That sounds good in theory, but it's more likely that the typical gardener will leave a plant alone until it's obvious it needs attention. A perennial is clearly letting you know it needs to be divided if it:

- produces fewer or smaller flowers than in past years
- has smaller leaves or looks sparse in the middle.
- develops a dead spot or empty hole in the middle of the plant crown.
- is overcrowded and competing with nearby companion plants for space (not to mention nutrients, water, light, and good air circulation).
- has sparse foliage at the bottom of the plant.
- has weaker inner flower stalks that cause the plant to splay open in the middle.
- appears less vigorous in general.

WHEN TO DIVIDE PERENNIALS

Now that you know what clues to look for, the next step is to determine what time of year to divide the plant. In theory, perennials may be divided at any point during the growing season. While this is not a hard and fast rule, many sources recommend **dividing them when they are not actively growing or flowering** so that they can concentrate their energy into regenerating root and leaf tissue. For example:

- **Divide spring- and early summer-blooming perennials in the fall**. This gives the plant plenty of time to store up nutrients over the summer months before they are divided. Also, the cooler temperatures of fall are less stressful on newly divided plants while they are establishing new roots. As for timing, divide plants about four to six weeks before the ground freezes.
- **Divide fall-blooming perennials in early to mid-spring**. Plants in this category will have stored up energy in their roots over winter, which will facilitate their recovery from being divided. Divide the plants after the shoots have emerged and are a couple of inches tall. It is less damaging to a plant to divide it when leaves and shoots are small rather than when they are more mature.

Dividing a perennial during the sweltering hot summer months can be done, but it is not generally recommended.

WHAT HAPPENS WHEN YOU DIVIDE A PLANT?

To gain an appreciation for the science behind dividing plants, it's important to understand perennial root structures and how they function. Botanist Brian Capon, in his book ***Botany for Gardeners***, explains that there's a lot that goes on in a root at the cellular level. If you were to examine a root under a microscope, you would see that it is comprised of different types of cells. A root cap at the very tip of a root protects cells above it that rapidly divide and then elongate. As those cells elongate, they literally push the tip forward into the soil in search of water and nutrients. Above that portion of the root, the cells become even more specialized. This portion of the root is where tiny root hairs form.

The role of root hairs is to absorb water and nutrients into the root core. To put it simply, the root hairs are absolutely vital to the overall health and viability of the plant. When you divide a plant, the act of heaving it out of the soil and then pulling it apart or cutting it into multiple pieces damages the root structure and destroys many of the delicate root hairs. As the plant recovers from being divided, it grows new root hairs. Otherwise, it can't take up moisture from the soil. That's why it's important to minimize root damage as much as possible during plant division and to provide proper care of the plant while it becomes reestablished in the soil.

HOW TO DIVIDE PERENNIALS DEPENDING ON ROOT STRUCTURES

Perennials vary widely in their root structures and crowns, as demonstrated in the broad categories described below. As a result, there's no "one size fits all" approach to dividing plants.

SPREADING ROOT SYSTEMS – This category consists of perennials with lots of slender matted roots that originate from many locations with no distinct pattern. Some members of this group have loosely formed root systems that can be divided by simply teasing them apart with your fingers. Others have more densely intertwined roots that must be cut apart with a sharp knife or pruners. Still others send out modified stems that root where they touch the ground. Those can be divided by simply snipping the connecting stem with pruners to separate the "parent" plant from the "baby" plant, and then digging up and planting the baby elsewhere. Aromatic aster species, *Dendranthema* (chrysanthemum), *Monarda* (bee balm), *Stachys byzantine* (lamb's ear), *Rudbeckia* (black-eyed Susan), *Macrorrhizum* (bigroot geranium), *Ajuga reptans* (bugleweed), *Solidago* (goldenrod), creeping sedum, *Achillea* (yarrow), and some fern species are representative of perennial species with spreading root systems.

Freshly divided Leucanthemum (shasta daisy) yielded four generous divisions. Photo: Pat Chadwick

Dividing daylily. Photo: Rebecca Finneran, Michigan State Extension

CLUMPING ROOT SYSTEMS — *Perennials* in this category have more tightly packed root structures that originate from a thick fleshy crown. This category is represented by *Phlox paniculata* (garden phlox), *Echinacea* (coneflower), *Hemerocallis* (daylily), *Astilbe*, and larger hosta clumps. For many of these, the crown is either so thick or tough that the divisions must be cut apart with a sharp knife, pruners, or spade. For plants such as daylilies, which have particularly dense crowns, the best way to divide them is to insert two garden forks back-to-back into the crown, and slowly pull them apart.

TAP ROOTS – While you can divide virtually any herbaceous perennial that has a crown with multiple roots, a plant with a single tap root is another story. Tap roots are difficult, if not impossible, to divide. *Asclepias* (milkweed), *Euphorbia* species, *Baptisia* (false indigo), *Actaea* (bugbane), *Platycodon* (balloon flower) and *Eryngium* (sea holly) are a few examples of plants with tap roots that grow deep into

the soil. These species are better left alone rather than try to divide their roots. However, if you are determined to divide a plant of this type, use a sharp knife to slice off a portion of the taproot that has some foliage attached or an "eye" (growth point). As some tap-root plants age, they may develop multiple tap roots, in which case, you may be able to divide them by cutting them apart between tap roots without seriously damaging the parent plant.

TUBEROUS ROOTS OR RHIZOMES – Plants with thick tuberous roots or rhizomes should be cut apart using a sharp knife. Examples include dahlias, canna lilies, and bearded irises. Each division must have a growing point or bud. For dahlias, make sure each division has a piece of the original stem and a growth bud. For irises, cut or break off the divisions from the "parent" rhizome and replant them so that the roots are spread out and the rhizome (the thick, fleshy part from which the roots extend) is sitting slightly above the surface of the soil. Discard the "parent" rhizome. It will not rebloom.

Division of Macrorrhizum (bigroot geranium) clump with rhizomatous roots. Photo: Pat Chadwick

WOODY ROOTS — Some perennial species are actually small woody subshrubs with woody bases and tough, fibrous roots that rest on or near the surface of the soil. Such plants should not be divided. However, if they have branches that have developed roots where they touched the ground, cut those from the parent plant and replant them elsewhere. Examples include *Iberis* (candytuft), *Lavandula* (lavender), *Santolina* (lavender cotton), *Perovskia* (Russian sage), and some *Artemisia* species. Note: Tip cuttings or layering may be more successful methods than division with this root type. For information on propagating plants from cuttings, see **Creating New Plants from Cuttings** in the October 2020 issue of *The Garden Shed*.

HARD-TO-DIG ROOTS – Large ornamental grasses are a good example of this category. They form huge, tightly formed root structures that require enormous strength and effort to pull out of the ground. If you are successful in extracting the entire root ball from the ground, lay it on its side and use a hand saw or hatchet to divide it into smaller pieces. If that seems too difficult, it may be easier to leave the plant in the ground but carefully carve out a wedge from the outer edge of the clump and remove that portion only.

GENERAL GUIDELINES FOR DIVIDING PLANTS

Before dividing plants, decide where you're going to plant the divisions and prepare the planting site in advance. This means loosening the soil, removing any grass, weeds or rocks, and incorporating some compost. Also, assemble your tools in advance. The goal is to transplant the divisions as soon as possible so that the roots don't dry out when they are exposed to the air. Use a **sturdy shovel or spade** with a sharpened edge to make the task of digging up a plant easier and to help minimize damage to roots. Use a **clean, sharp, sterilized, non-serrated knife** for cutting roots apart. Use **garden forks** to pry apart the roots of some plants with particularly tough fibrous roots. Use **hand pruners** to snip off any broken or damaged roots.

Once you've lined up the tools you'll need, then you're ready to tackle the task at hand. Most three to five-year old clumps will yield three to five good-sized divisions, per Nancy Ondra's book ***The Perennial Care Manual***. While each division needs a minimum of one shoot or eye (growing point) and some roots, Ondra recommends dividing plants so that each division has at least **three or more growing points** plus a generous supply of healthy roots.

- Ideally, divide perennials on a cool, cloudy day when there's rain in the forecast.
- Water the plant the day before you divide it so that it is fully hydrated.
- Dig up the parent plant by inserting a shovel or spade straight down into the soil at the drip line. Depending on the plant, the drip line can be several inches to a foot or more from the plant crown. As you push the spade into the soil, pull the handle back towards yourself in a rocking motion to loosen the root ball from the soil. After you work your way around the perimeter, insert the spade at an angle beneath the plant to gently pry the root ball free from the soil.
- If the center of the clump is dead, focus on taking divisions from the outer part of the clump and discard the dead center.
- Trim off any broken roots with a sharp, sterile knife or pruners.
- Plant divisions right away in planting holes that are **two to three times wider but no deeper** than the root ball and with the crown just slightly above the soil level.
- Firm soil so that there's good contact with the roots and to eliminate any air pockets.
- Water well after planting but don't drown the plants. The soil needs to be kept evenly moist for the first couple of weeks but not soggy.
- After the plants become established, which can take several weeks, **fertilize lightly** with a balanced organic fertilizer. Don't fertilize at the time you plant the divisions because fertilizer can burn the plant roots if it comes in contact with them.
- For divisions that you plant in the fall, mulch the root zone with about 2 to 3 inches of chopped leaves, shredded hardwood mulch, or other organic mulch **after** the first freeze. This will prevent the divisions from heaving out of the ground during winter's freeze/thaw cycles.
- If you find it necessary to divide a perennial in the summer, **cut back the foliage on the divisions by about half** or more to reduce water loss by evaporation. Replant the divisions immediately and protect them from the hot sun until they become established. Keep the divisions moist (but not soggy) while they recuperate. **Exception to the rule**: Bearded iris is a spring-flowering bulbous perennial that goes dormant in summer and may be divided in July or August with no ill effects from the heat.

COMMON MISTAKES GARDENERS MAKE IN DIVIDING PERENNIALS

Mistakes to avoid when dividing perennials include:

- **Digging too close to the root ball**. It's much better to dig up too much soil and have to brush it off the root ball than it is to accidentally chop off the roots of the plant you intended to divide.
- **Digging up the plant incorrectly**. To loosen a plant from the soil, insert the spade **straight up** and down around the perimeter of the plant. Then, insert the spade at an angle beneath the plant to lever the plant out of the ground.
- **Making too many divisions**. If the division is too small, it may not have enough roots to support the plant. Also, it will need an extra year or two to grow large enough to make a decent floral display.
- **Not making enough divisions**. If the divisions are too large, you may have to divide the plants all over again the following year or two.
- **Dividing plants in the heat of the day**. It is less stressful to divide a plant either in early morning or late afternoon when temperatures are cooler.

- **Not shading newly divided plants** from hot sun. This is more of a problem for perennials divided in late spring and not so much an issue for fall-divided perennials. Any plant that is divided in the heat of summer definitely should be shaded from the sun for a week or so while they are becoming established.
- **Not keeping newly divided plants properly watered**. Until a plant division establishes new roots and root hairs, don't let it dry out. Keep the soil moist but not soggy.

SUMMARY

Perennial plant division is an easy and useful skill to master. For the new gardener, lots of excellent resources are available to provide help and guidance. For example, in addition to Tracy DiSabato-Aust's excellent book on *The Well-Tended Perennial Garden*, the University of Minnesota Extension's website, which is included in Sources below, provides free advice on how and when to divide 125 different perennials.

As a final word on dividing perennials, bear in mind that propagation of some perennials, whether by division, cuttings, layering, or other methods, may be prohibited. Always check for patent or trademark guidance pertaining to the propagation of plants, particularly hybridized varieties.

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Featured Photo: by Pat Chadwick

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