September 2022-Vol.8, No.9

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September in the Ornamental Garden

By Patsy Chadwick | September 2022-Vol.8, No.9

September is an “in-between” month when daytime temperatures still feel summery but cooler nights signal the beginning of autumn. As long as the weather continues to be mild, weeds will continue to grow, plants will need to be watered, and the garden will need to be kept tidy.

Weeding – Summer weeds are coming to the end of their normal growing season now, but cool-season weeds such as henbit deadnettle (*Lamium amplexicaule*) and common chickweed (*Stellaria media*) are starting to appear. If not removed this fall, they will overwinter in your landscape and resume growing next spring. A few minutes spent weeding now will significantly reduce the number of weeds facing you next spring.

Common chickweed Photo: Jay Sturner, Wikimedia Commons (CC BY 2.0)

Watering – If there’s no rain in the near-term forecast, continue providing supplemental water to your perennials, shrubs, and trees, particularly those newly planted this year.

Tidying – In addition to weeding, a general sprucing up can make a big difference in your garden’s appearance this month.

- Cut back diseased and unsightly flower stalks of perennial species once they have finished blooming. But don’t get too aggressive with your tidying. If the flower stalks are healthy, they may be left in place to provide habitat for overwintering insect species.
- Re-edge flower beds to provide a nice sharp line of demarcation between lawn and garden. This simple task can make your garden look well maintained even if the plantings don’t look their best.
- Remove damaged or diseased leaves of hostas, day lilies, and other perennials. Not only will this make the garden look neater but, more importantly, it will remove foliage that might otherwise harbor fungal diseases and other pathogens over the winter.

- Cut back and fertilize leggy annuals early in the month to improve their appearance and to encourage one more round of blossoms. Or, if the plants appear to be beyond hope, replace them with cool season bedding plants, such as mums or ornamental cabbage and kale.
- Unless you have already stopped deadheading perennials, consider leaving the seed heads in place for the birds to enjoy. The seeds from coneflower, black-eyed Susan, aster, and other late season blooming plants are a vital source of food for many bird species in the winter.
- If mounding perennials, such as hardy geraniums, catmint, and spiderwort look messy, overgrown, and out of control at this point, make a note (for future reference) to shear them back after they finish blooming in the summer. This will help improve the overall appearance of the plant and encourage it to sprout fresh new growth which will look attractive through fall. Depending on the species, some perennials may even reward you with another round of blossoms before frost.

AUTUMN-SPECIFIC GARDENING TASKS

With cooler temperatures on the horizon, the timing is perfect for dividing perennials and planting trees and shrubs, among other autumn-specific tasks.

Divide Perennials. September and early October are ideal times to divide plants due to the combination of warm soil, cooler temperatures, and a greater chance of rain. Technically, a plant may be divided any time during the growing season, but you're likely to have best success if you divide spring- and early summer-blooming plants in the fall and fall-blooming plants in the spring. Pick a cool day for this task. Water the divisions well when you plant them and continue to keep them watered so that they become well established before the ground freezes.

While most perennials benefit from being divided every 3 to 5 years on average, some plants, such as asters, may need to be divided more often. Others, such as peonies, may not need to be divided at all. Look to the plant for clues that it needs to be divided such as:

- Fewer or smaller-sized flowers than in past years.
- A dead area in the center of the plant's crown.
- Less vigor than in past years.
- Weak inner flower stalks that flop over and can't hold up flowers.
- Sparse foliage at the bottom of the stems.
- Too large for its allotted space in the landscape.

Not all plants can be easily divided. For example, false indigo (*Baptisia*), milkweed (*Asclepias*), monkshood (*Aconitum*), and balloon flower (*Platycodon*) have taproots that are difficult to divide without severely injuring or killing the plant.

For more information on this topic, see Guidelines for Dividing Perennials in the March 2021 issue of *The Garden Shed*.

Make Stem Tip Cuttings. While you can certainly dig up and overwinter wax begonias, geraniums, coleus, and other bedding plants, they don't always respond well to the transition indoors. It's usually more effective to root new plants from stem cuttings. The cuttings don't take up as much room indoors and they're generally easier to keep alive over winter than a full-size plant. Here's how to propagate a plant from a stem cutting:

- Fill a clean container with a moistened sterile potting mixture.
- Select a healthy stem or branch and cut a 3" to 6" long piece of it with a sharp knife just below a

leaf node.

- Remove any leaves or flower buds from the portion of the stem that will be below the soil line.
- Dip the cut end of the stem in a rooting stimulant. This helps the cutting root better but is not essential.
- Using a pencil or other pointed instrument, make a hole for the cutting in the potting mixture.
- Insert the cut end of the cutting and gently tamp soil around it to hold it upright.
- Cover the entire container with a clear plastic bag.
- Place the container in a warm spot that has bright but not direct sunlight.
- Check the potting soil regularly and mist it with warm water as needed to keep it moist but not soggy.
- Once the cutting resists a gentle tug, that's a sign that roots have begun to form.

Propagating Hyssop stem tip cuttings. Photo: Pat Chadwick

Save seeds. One of the great pleasures of gardening is growing plants from seeds collected in your own garden. If you are new to saving seeds, **annuals and biennials are grown from seed. Some perennial species may be grown from seed** (such as coneflower, rudbeckia, and cardinal flowers) but most are grown from cuttings or divisions. Be sure to save seeds from **open-pollinated or "heirloom" species rather than hybrids**. This ensures the offspring will resemble the parent plant from which the seeds were collected. Plants grown from hybrid varieties often revert to characteristics of earlier generations and are not likely to resemble the parent plant.

- Gather seeds when they are fully ripe but leave some for the birds to eat over winter.
- If seeds aren't already fully dry, spread them out on newspapers or leave them in an open paper bag to dry.
- Place the dried seeds in envelopes or glass jars labeled with the seed's name and the date.
- Store the packaged seeds in a cool place. Some gardeners like to store their seeds in the refrigerator.

To learn more about saving seeds, see the article on Growing Plants From Seeds You Collect in the September 2017 issue of *The Garden Shed*.

Cut and preserve flowers, such as globe amaranth, statice, strawflower, and other plants that dry well, for use in dried flower arrangements. A simple method for drying them is to bundle them loosely and hang them upside down in a dry, well-ventilated space away from direct sunlight. Purdue University Cooperative Extension service has good information on how to preserve plant materials.

Direct sow seeds this fall of cool-season annuals, such as calendula, California poppy, larkspur, love-in-a-mist, snapdragon, and sweet alyssum. These species require a period of cold, moist weather (a process called stratification) to break down the seed coating so that the seed can germinate. While technically these

seeds may be planted very early in spring, greater germination success may be achieved by planting them in the fall.

Got deer? Install plastic fencing, chicken wire, or other barriers around shrubs and trees, particularly young or newly planted ones, to prevent damage this fall from deer browsing and antler rubbing. Another approach is to install 4 or 5 sturdy metal fencing stakes around vulnerable plants.

Buy bulbs for fall planting while supplies are still plentiful. As you plan ahead for next year's spring garden, expand your horizons and experiment with bulbs other than daffodils and tulips. Invest in some of the early-blooming minor bulbs such as snowdrops (*Galanthus nivalis*), starflower (*Iphieon*), scilla (*Siberian squill*), crested iris (*Iris cristata*), glory-of-the-snow (*Chionodoxa*), and other easy-to-naturalize hardy bulbs for planting this fall. As extra incentive to you, the deer, rabbits, voles, and other wildlife generally do not bother these early bloomers.

TREES AND SHRUBS

Fall is traditionally the best time of year to **plant woody ornamental species in the landscape.** Newly planted trees and shrubs are happiest when soil temperatures range between 55°F and 75°F. Without the stress of hot summer weather, they can focus on developing good root systems before the onset of winter. Root development stops once soil temperatures drop below 40°F. To give those plantings the best possible chance for success, keep them well watered. Don't rely on rainfall alone to maintain adequate moisture levels. Also, be sure to maintain a three-inch layer of mulch over the root ball area, but not up against the trunk of the plant, to help hold in moisture and to moderate the soil temperature. For suggestions of shrubs and trees to plant, check out the Virginia Cooperative Extension's publication 450-236, Problem-Free Shrubs for Virginia Landscapes, and The Virginia Department of Forestry's publication on Common Native Trees of Virginia.

Don't become alarmed if the **needles on white pines** (*Pinus strobus*) start to show some yellowing around mid to late September. It's perfectly normal for the older, interior needles to shed.

HOUSEPLANT CARE

Remember – you gradually acclimated your plants for their transition to the sunny outdoors this spring. Now that it's time to bring the plants indoors for the winter, you need to reverse the process.

- If your houseplants are currently in a sunny location, move them into a shadier spot about 2 weeks in advance of bringing them indoors so that they can adjust to lower light levels.
- Before moving the plants indoors, wipe down the containers to remove dirt and debris.
- Thoroughly inspect each plant for insects, such as scale, white fly, mealy bugs, and fungus gnats, or insect eggs and larvae. Don't forget to check under pot rims for spiders. Inspect the bottoms of containers as well as the bottoms of saucers for insects or their egg cases.
- While daytime temperatures may be hot, night-time temperatures become noticeably cooler in September, particularly toward the end of the month. Plan to move houseplants indoors before night-time temperatures drop below the mid-50s.

Acclimate patio plants such as tropical Hibiscus for overwintering indoors. Before you move a tropical Hibiscus indoors, cut it back to about 6" tall and inspect it for insects. This plant is particularly prone to white flies. Once the plant is indoors, position it near a bright window where it will get plenty of light. Lightly water it over the winter months.

SEPTEMBER CREEPY CRAWLIES

Banded Woolly Bear Caterpillar – According to a common urban myth, the color bands on the harmless woolly bear caterpillar are a predictor of just how mild or severe the winter will be. If the black bands on either end of this bristly-looking caterpillar are longer than the center reddish band, the winter will be harsh. Conversely, a wider center band supposedly indicates that the winter will be mild. Neither is true. In fact, the wideness of the center band has more to do with the age of the caterpillar than its ability to predict the weather. Woolly bears, also called "woolly worms," become very active in autumn as they search for protected places to spend the winter. They may be handled but the bristles covering their bodies are prickly to the touch and may cause a rash on sensitive skin. This amazing little creature produces a cryoprotectant in its tissues, which allows it to survive harsh winter weather even when frozen solid. In spring, it becomes active again and briefly resumes feeding before pupating. After about 2 weeks, it finishes its metamorphosis and emerges as an adult Isabella Tiger moth (*Pyrrharctia isabella*), which is indigenous to the United States and parts of southern Canada.

Spiders – Friend or Foe? The sight of sunlight sparkling on early morning dew is uncommonly beautiful at this time of year, particularly when it reveals a surprising number of spider webs glistening in the landscape. On the one hand, spiders fascinate us because of the fragile looking yet strong and elegant webs they spin. On the other hand, spiders are scary looking. They have eight eyes, eight legs, and are related to ticks and mites. Although most spiders are harmless to humans, two spiders in this area of Virginia are poisonous — the black widow spider and the brown recluse spider. A bite from either one of these dangerous species can cause serious symptoms requiring prompt medical attention. To learn more, see the Virginia Cooperative Extension's publication on Spiders of Medical Concern in Virginia. Spiders are very efficient predators and feed entirely on other insects or animals that are small enough for them to catch. In fact, they play a significant role in helping to control many pest insects. For that reason, give them a wide berth if you are afraid of them, but give them credit for the beneficial role they play in our gardens.

INVASIVE ALERT

Porcelain-Berry (*Ampelopsis brevipedunculata*) is **easy to spot in September and October** when clusters of different colored berries ripen to **bright turquoise blue**. This invasive vine is a rapidly growing woody perennial vine with a vast hard-to-kill root system. **Herbicidal foliar treatment is most effective for eradicating the vine when applied between midsummer and early fall.** It is the only feasible option for treating large infestations. Cutting back the vines and spraying the regrowth is a good way to reduce the amount of herbicide needed. Another method is to **cut the largest stems down near the ground (cut stump method)** and apply a concentrated, recommended herbicide immediately to the cut. A third method is to **use a basal bark application if you can reach the largest stems in the tangle**. This requires applying a concentrated, recommended herbicide mixed with horticultural oil to the lowest 12" of the stems; no cutting is needed. For additional information on Porcelain-Berry, see the Blue Ridge Partnership for Regional Invasive Species Management (PRISM) Factsheet.

Invasive Porcelain-Berry Vine. Photo: Courtesy of Missouri Botanical Garden Plant Finder

Many invasive plant species are easier to identify in fall because of their brightly colored berries, fall foliage, or both, and Porcelain-Berry is just one example. To learn more about other invasive species in this area of Virginia and methods for controlling them at this time of year, see the Blue Ridge PRISM website. See also the Invasive Plant Control Calendar in the May 2022 issue of *The Garden Shed*.

PESTICIDE WARNING

> *Pesticides (which include herbicides, insecticides, rotenticides, etc.) are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in the original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock. Consult the pesticide label to determine active ingredients, signal words, and proper protective equipment.Pesticides applied in your home and landscape can move and contaminate creeks, lakes, and rivers. Confine chemicals to the property being treated and never allow them to get into drains or creeks. Avoid drift onto neighboring properties and untargeted areas.*

FEATURE PHOTO: New England aster 'Violetta' with rough-stemmed goldenrod 'Fireworks'. Photo: Pat Chadwick

SOURCES

The Perennial Care Manual (Ondra, Nancy J., 2009)

The Well-Tended Perennial Garden, Third Edition (DiSabato-Aust, Tracy, 2017)

"Indoor Plant Culture," Virginia Cooperative Extension (VCE) Publication 426-100

"Planting Trees," VCE Publication HORT 426-702

“Porcelain-Berry,” Blue Ridge PRISM Factsheet.

“Spiders: An Undeserved Bad Reputation,” VCE Publication ENTO-393NP.

“Wooly Bear Caterpillar: Winter Predictor or Not?” National Weather Service Article, www.weather.gov/arx/woollybear

Virginia Tech Weed Identification Website **VA Tech Weed Identification list.**

The Road that Became a Garden

By Cathy Caldwell | September 2022-Vol.8, No.9

In autumn, the gardener's thoughts often turn to planting spring-blooming bulbs and perennials. If your mind is running in that direction, I've got some ideas for you — all gleaned from a visit to the garden of Charles Greiner, a Master Gardener with a unique spring garden. When I visited the Greiner garden last spring, I met quite a few natives and ephemerals for the first time. But the garden's unique origin story was equally captivating.

When the Greiners built their house — on a lot near Beaver Creek Reservoir — there were almost too many delightful features to count. But it was later that they discovered perhaps the most remarkable feature of all: an old roadbed. Yes, an old roadbed ran along one side of their property, and then wended its way uphill and across a creek. It was covered with a tangle of invasives, but still recognizable as a road. When the Greiners attended a lecture on early roads of Albemarle County, they learned that "their" road dated back to 1750, and was a remnant of old Three Notched Road, one of the four roads that Albemarle County constructed in 1750. It originated ten miles north at Browns Gap and terminated at Old Three Chopt Road, one mile to the south. In the 1850's it became a "turnpike" that the adjoining property owners had to maintain while having the right to collect user fees.

Charles Greiner in his roadbed in early spring. Photo: Bill Sublette

Both sides of the roadbed are sloped, and once he'd evicted the invasives, Charles decided to turn those sloping sides into a garden. When I asked why, he replied, "Well, I'm a gardener." Of course! It was an answer any gardener could understand. As I learned, he's more than a gardener, he was trained as a landscape architect at LSU, under the iconic Robert S. Reich, the founder of the department. That we both had a connection to Doc Reich was a delightful discovery, and we spent a few moments trading stories about him. To learn more about this early leader in the field — who came from a horticulture background — you'll find references in the Sources section below.

Nowadays, the old road is a path through swaths of flowering plants, including quite a few that Charles and his wife brought from their former home in northern Alabama. Mature deciduous trees provide plenty of shade as well as leaf litter for the soil. The ironwood trees (*Carpinus caroliniana),* with their muscular gray bark, were quite the attention-grabbers.

The flowering denizens of the roadbed include:

- trout lily
- mayapple
- Jacob's ladder
- trillium — several kinds
- pachysandra — a variety native to Alabama
- wood poppy
- winter aconite
- Christmas fern
- fernleaf phacelia (*Phacelia bipinnatifida*)
- Virginia bluebells

Bleeding hearts. Photo: Bill Sublette

Mayapple
Photo: Cathy Caldwell

- bleeding hearts
- native azaleas

Except for a few bulbs, almost all the plants are southeastern natives. Some are ephemerals, and most are spring bloomers, so this garden is in its prime in spring. When I visited in mid-March, a few plants had poked their heads up, one of which, mayapple, was familiar to me, as I'd written an article about it, Mayapple/The Garden Shed. The bluebells, which I've coveted for a long time, were already blooming.

That's when I saw my first Little Sweet Betsy (*Trillium cuneatum*), which has quite a few other common names, my favorite being toad trillium. According to my research, this southeastern U.S. native is usually found in shady, moist areas of forests. It is **sessile** in form, which means it lacks a stalk. Its seeds are spread by ants (a process known as *myrmecochory*). And why do ants take up this task? It's because they feed the *elaiosome* (a small oily structure attached to a seed) to their offspring. Unfortunately, we humans apparently have difficulty growing it from seed, on top of which, it does not transplant easily. Bloom color can vary; usually it's maroon, but sometimes yellowish bronze or reddish-green.

Little Sweet Betsy trillium. Photo: Cathy Caldwell

Trilliums and bluebells in April. Photo: Bill Sublette

Charles pointed out a large swath of mottled leaves, which I learned were **yellow trout lilies (*Erythronium americanum)*,** whose common name derives from the resemblance of the foliage to the markings on brook or brown trout. This plant is also known as dog-toothed violet, as well as a host of other common names. It was named the Wildflower of the Year in 2003 by the Virginia Native Plant Society.

The trout lilies' delicate blooms appeared later, in April (see photo below). Like many ephemerals, the trout lily goes dormant in late spring. The root system consists of a corm (bulb-like structure) with fibrous roots. Trout lilies spread via rhizomes, often creating large colonies in the right conditions — i.e., shady areas with moist, humus-rich soil. This plant requires some sun in early spring, which a deciduous forest provides. If you're starting your own colony, beginning with a corm is recommended. You have to be patient for the flowers as it often takes 4 to 8 years to mature to the blooming stage.

Trout lily. Photo: Bill Sublette

Yellow wood poppy. Photo: Bill Sublette

Another April bloomer is *Stylophorum diphyllum,* commonly known as **wood poppy** or **celandine poppy**, which bears bright yellow (though sometimes orange-ish) flowers. It will re-bloom if cut back. This perennial is native to a large portion of North America, from Wisconsin and Michigan south to Arkansas, Tennessee, and southwestern Virginia, and is occasionally found in northern Alabama and southern Ontario. Like the trout lily, it prefers moist humus-y soil in a shady location, but is somewhat drought-tolerant. It is a self-seeder, although chipmunks and mice love to eat the seeds. Sadly, some scientists say that this plant's survival in the wild may be threatened in some locations by the invasive garlic mustard, which apparently disrupts the mycorrhizal fungi associated with wood poppy — and some other native plants, as well. NC State Extension,

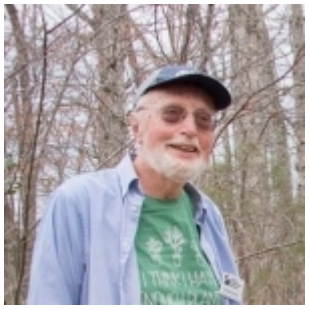
I had never heard of ***phacelia,*** a genus sometimes referred to as scorpion weed, but it's a plant well worth knowing. There are apparently eight native species of *Phacelia* in the southeastern U.S. Charles has one, believed to be *Phacelia bipinnafitida, which is* commonly called fernleaf phacelia, fernleaf scorpion weed, or purple phacelia. The latter name is the one used by the Mt. Cuba Center, which has a large colony and endorses its use by gardeners. Here's what Mt. Cuba has to say:

Purple phacelia, a relatively unknown biennial, can be used to quickly cover a large area in a sea of foliage and flowers. The divided leaves grow to a height of 5" the first summer and linger until late fall. The following spring, they re-emerge, culminating in 12-15" tall plants covered with masses of purple flowers that last for about a month. Purple phacelia readily self-sows thereby assuring a continuous display.

—*Mt.Cuba Center/Purple Phacelia*

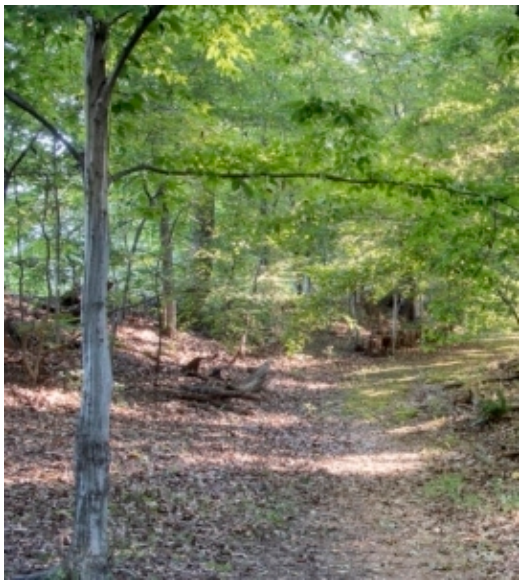
Phacelia bippintifida. Photo Courtesy of Mt. Cuba Center

Phacelia bippinnatifida tolerates most soil types and grows best in part shade. Remember that it's a biennial, dying soon after flowering in the second year. Happily, it is easy to start from seed, and seeds are available commercially. I'm still trying to decide which common name to use, but there's no doubt that I want some for my garden.



Touring this unusual garden was a treat, and Charles was a most gracious and learned host. When I asked which of the spring beauties was his favorite, he replied, “I don’t think I have any favorites. I always enjoy seeing every single one when it appears.”

You, too, might like to add early spring flowers to your garden, especially since they’re needed by our native pollinators. To learn more about them and how to add them to your garden, I highly recommend reading Searching for Spring Ephemerals/Piedmont Master Gardeners, which is packed with useful resources.



In August, ephemerals are gone. Note the ironwood tree. Photo: Bill Sublette

Steps lead up from the roadbed into the yard — and to other gardens. Photo: Cathy Caldwell

SOURCES:

FEATURED IMAGE: Bill Sublette. With many thanks to Bill for his photographs.

“Trillium cuneatum,” Missouri Botanical Garden

“Trout lilies,” Clemson University Home & Garden Information Center

“*Erythronium americanum* ssp. *americanum*,” NC State Extension

“*Erythronium americium*,” University of Tennessee Institute of Agriculture/Native Plants

“Yellow Trout Lily (*Erythronium Americanum*) Wildflower of the Year 2003,” Va. Native Plant Society

Lady Bird Johnson Wildflower Center/www.wildflower.org/Stylophorum diphyllum

“Stylophorum diphyllum,” NC State Extension

“Stylophorum diphylllum,” Missouri Botanical Garden

A Field Guide to Terrestrial Invasive Plants in Wisconsin/Wisconsin Dept. of Natural Resources (impact of garlic mustard on native plants)

“An Old-Fashioned Favorite: Bleeding Heart,” Penn.State Extension

“*Dicentra eximia*,” NC State Extension

“Phacelia bipinnatifida,” Lady Bird Johnson Wildflower Center

“North Carolina Phacelia Species,” BotanyNerd

Adding Native Spring Ephemerals to Ornamental Flower Beds/The Garden Shed/2018

Robert Reich School of Landscape Architecture/History

“Moment of Silence – Dr. Robert S. Reich, FASLA, 1913-2010,” landscapearchitect.com (” . . . he could use any plant, from Johnson’s grass to live oaks, in imaginative ways . . .”)

September in the Edible Garden

By Ralph Morini | September 2022-Vol.8, No.9

September is a busy month for committed edibles gardeners. Harvesting, cleaning up, final planting for fall and early winter harvest, and cover crop planting for beds that are finished for the season. We'll touch on each area to help you plan your actions.

Harvesting

Many summer vegetable plantings will be reaching the end of their productive lives. It is a judgement call on when to stop the harvest and remove plants. It depends on plant condition, pest impact, and intentions for that garden space's next phase. Harvesting when fruits and vegetables are young can help keep plants going a bit longer. Items like tomatoes can be picked as soon as color starts to change to minimize pest damage, while maintaining most "summer tomato" qualities. There are a number of ways to ripen green tomatoes off the vine.

This is also the time to optimize late season herb harvest. Pinching flowers will help prolong leaf production. Plants can be dug up and potted, or cut and rooted to be moved inside. Alternatively, they can be cut for immediate use or preserved by freezing or drying.

Planting

In our local hardiness zone 7a, some produce and vegetables can be planted through mid-September. These include beets, kale, collards, mustard, kohlrabi, leeks, lettuce, radish, spinach and turnips. The earlier they are planted the better since growth will slow as days shorten and temperatures drop.

Row cover over kale and lettuce. Photo: R Morini

Pests like cabbage worms continue to attack brassicas including kale and collards until the first frost. Picking-and-squishing and the organic pesticide Bacillus thuringiensis (Bt) will help keep the plants going until frost. After the frost kills off the pests, a row cover can provide a 4-5 degree temperature benefit and extend the growing season for a variety of greens, spinach, lettuces and other cool weather crops. Check out this *Garden Shed* article for simple row cover construction ideas.

If you have been struggling with pests this year, a great all-purpose source for pest identification and treatment options is the Home Grounds and Animals: 2022 Pest Management Guide from the VA Cooperative Extension.

Preparing Beds for Winter

If you are finished for the year, this is the time to prepare your beds for next spring. First task is to thoroughly clean up the garden area. Removing spent plant material is essential to minimize wintering-over pests and disease-carrying vegetation. It is best to bag and dispose of any diseased plant materials. Clean material can be composted.

Once beds are cleaned, add organic matter in the form of compost, mulched leaf litter, or organic fertilizers, providing decomposition time to make nutrients plant-accessible by next planting season. If you aren't planting a cover crop, mulch beds with an organic mulch like straw, leaf mold, chopped up leaves or aged

wood chips.

Best practice is to plant a cover crop and keep live roots in the soil year round. Cover crops bring several benefits, including building soil structure, reducing erosion and compaction, weed suppression, adding organic matter, and in the case of legumes, fixing atmospheric nitrogen for plant use. There are a couple of basic cover crop choices: *winter-killed* and *winter-hardy*.

- **Winter-killed cover crops** die out after a few hard frosts, but their root and surface biomass help hold the soil and they can be used as mulches or tilled under in spring. Oats, field peas, forage radishes, and rapeseeds are common types.
- **Winter-hardy cover crops** will either grow through or go dormant in winter but resume growth in spring. They should be cut in spring prior to going to seed, with the greens composted, used as mulch, or, if you insist on tilling, tilled into soil as a green fertilizer. If greens are tilled in, allow 2 or 3 weeks after tilling for decomposition prior to planting. Winter-hardy choices include winter rye, winter wheat, hairy vetch, Austrian winter peas, and crimson clover.
- **Mixed Covers:** Regenerative farmers report benefits from mixed cover crops that bring diversity to the soil. A mix that has been used successfully on Piedmont Master Gardener projects includes crimson clover, forage radishes, and annual ryegrass. If planted by mid-September, the radishes will penetrate deeply into the soil before being killed by frost, opening the soil and depositing valuable organic matter. The clover and ryegrass will go dormant in winter and revive in spring, adding nitrogen and rootmass to the soil respectively. They can be cut during the flowering stage and allowed to rest for a couple of weeks before planting. The cut vegetation can be used as a mulch or removed and composted.
- This is a good last chance to record what was planted where, to assist in crop rotation next year, another key step to reducing pest and disease carryover from year to year.

Preparing New Beds

Preparing newly-tilled bed for cover crop seeding. Photo: W Sublette

If you are planning a new garden or garden expansion for next year, now is a good time to begin preparing soil. Tilling to remove or bury surface vegetation, adding organic matter, and mulching or cover cropping prior to winter are good preparation for next year. The picture above shows a new garden area operated by

New Roots Charlottesville, an arm of our local International Rescue Committee, a PMG community garden partner. The surface grass in the bed has been tilled under and and volunteers are preparing the surface for a winter hardy cover crop planting. Additionally, based on a soil test, lime was spread over the area to raise the low pH.

More information on cover crops can be found in Cover Crops and Cover Crops for Productive Home Gardens from the Maryland and NC State Extensions respectively.

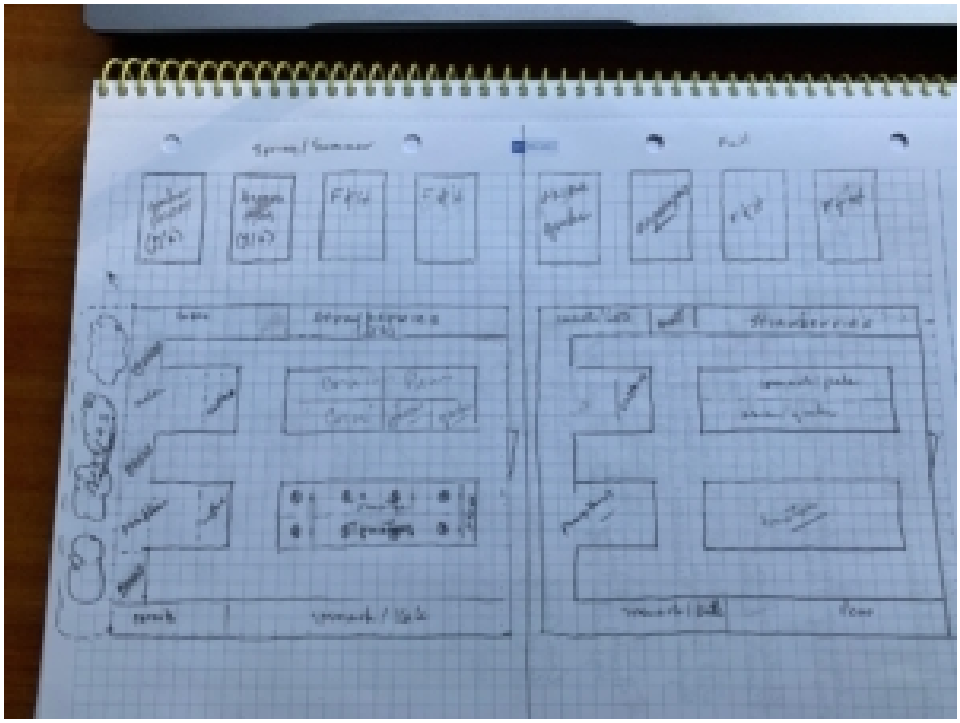
Another option, which doesn't require digging or tilling, is sheet mulching. It involves moistening the base soil, covering it with an organic barrier like newspaper or flat corrugated boxes, then adding six or more inches of a mix of organic materials including leaves, soil, compost, wood chips or whatever is available, topped off with a mulch to manage moisture and reduce weeds. If done in the fall it should be ready for direct planting in the spring, although the decomposition rate is a function of the materials used. Chunky, woody materials take longer to get ready than mulched and decomposed matter. Find detailed guidance in the video Sheet Mulching: Lawn to Garden Bed in 3 Steps from the Penn State Extension.

General Tips

Garlic is best planted during October. Now is a good time to purchase seed bulbs before local retailers sell out. Internet suppliers offer more variety for experimenters or connoisseurs. The article Growing Garlic – Fall Planting from the Penn State Extension provides a concise summary of garlic selection, planting, and care.

Late season tomato plant. Photo: R Morini

Give your tomato plants one last feeding. Compost tea or fish emulsion should give them the extra energy they need to make that final push at the end of the season. **Pinching off small green tomatoes and any new flowers** will channel the plant's energy into ripening the remaining full-size fruit.



Journal noting crop locations to inform rotation next year. Photo: R Morini

If you've been lax in your **garden documentation** this year, tour your garden and make notes on varieties grown, successes, challenges, and chores, so that you can learn for next year. Make a sketch showing the location of this year's plants to be used next spring for rotating your crops, an important pest and disease management practice.

Continue to weed the garden to prevent the weeds from going to seed and germinating over the winter and spring. **Keep** the **strawberry patch** weed free. Every weed you pull will reduce labor next spring.

Pick pears when green and hard ripe. Store in a cool, dark place to ripen.

Check peach tree trunks and just below the soil at their base for borer holes. Probe the holes with a wire to kill the borers.

Remove two-year-old canes from **raspberry and blackberry plants** at ground level to reduce overwintering of disease. Fertilizers containing potassium, phosphorus, and magnesium or calcium can be applied but do not cultivate or irrigate at this time of the year.

Fall weed control around fruit trees is crucial because **weeds act as hosts to overwintering insects.**

Plant lavender seeds in the fall for spring germination.

In any case, enjoy the fall gardening season. Cooler weather, reflecting on the past season and making preparation for a better next year can be very satisfying. As usual this year, our gardens have been a wonderful diversion. See you next month at *The Garden Shed*.

Sources:

"Gardening by Month–September," Missouri Botanical Garden, http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/help-for-the-home-gardene

r/advice-tips-resources/gardening-by-month/september.aspx

“Monthly Horticulture Tip Sheets — Herbs, September,” Va. Coop. Ext. Albemarle/Charlottesville, https://albemarle.ext.vt.edu/content/dam/albemarle_ext_vt_edu/files/hort-tip-sheets/9-14-herbs.pdf

“Monthly Horticulture Tip Sheets — Fruit and Nuts, September,” Va. Coop. Ext. Albemarle/Charlottesville, https://albemarle.ext.vt.edu/content/dam/albemarle_ext_vt_edu/files/hort-tip-sheets/9-14-fruits-nuts.pdf

Virginia’s Home Garden Vegetable Planting Guide: https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/426/426-331/SPES-170.pdf

VCE September tips for Fruits and Nuts: https://albemarle.ext.vt.edu/content/dam/albemarle_ext_vt_edu/files/hort-tip-sheets/9-14-fruits-nuts.pdf

An Amazing Master Gardeners' Garden

By Ralph Morini | September 2022-Vol.8, No.9

There are gardens and there are gardens. Fern and Cleve Campbell, long time Piedmont Master Gardeners, have developed amazing edible and ornamental gardens on their property that are a testament to the beauty of native ecologies and the effectiveness of the latest regenerative agriculture techniques. They have been kind enough to agree to take *Garden Shed* readers on an enlightening historical tour of how they have done it.

How It All Started

Both Fern and Cleve grew up in gardening families, doing garden chores and nibbling veggies off the vine at very young ages. Fern's mom was also a canner and got Fern interested in food preservation when she was a little girl. They kept their early training going from the start of their marriage. Living in a cottage on a larger estate, they convinced their landlord to allow them to till a small vegetable garden in exchange for planting her an asparagus bed. They started their plants from seed, using a light borrowed from their fish aquarium, and remember buying a chest freezer as one of their first "furniture" purchases.

When they moved to their current property in 1985 it had no vegetable garden. During their first year there,

they established an herb garden near the back door and enlisted a neighbor with a tractor to help clear an area for a garden planned for the next spring. That space became the current “upper garden.” Fern claims that they canned 50 quarts of whole tomatoes and 56 quarts of tomato juice during the early years. She proved this by checking the records in her Garden Journal. Talk about following best practices!

How It Has Developed

The upper garden (featured photo above) measures just shy of 5,000 square feet, a big plot for most home gardeners. It includes many rows and wide beds, as well as two rows of asparagus, each 38 feet long, and a 38-foot-long raised bed which they cover with shade cloth for summer lettuce, and with clear plastic for winter greens.

Hot peppers and pollinator plants in lower garden. Photo: R Morini

But Fern and Cleve felt they needed more garden space for melons and potatoes, so in 1988, they started the “lower garden.” This plot has expanded over the years and now measures another 10,000+ square feet. (I had to see it to believe it!)

In the mid-90s they planted a 1400 square-foot “fruit garden” where they grow strawberries, raspberries,

blueberries and blackberries. Disease took some of the plants over the years so they removed the sick plants, covered the soil with compost and leaves for three years and replanted this year.

Building the Soil Has Been Key

Original soil: Photo: R Morini

The soil on their land was originally compacted red clay and included some wet areas that were slow to dry, delaying spring planting. Ahead of their time, the Campbells added compost, leaves and straw to build organic matter and loosen the soil. Their practice until a couple of years ago was to bring in truckloads of partially decomposed leaves from a local commercial composter and mulch their beds after planting in the spring, and then tilling it into the soil the following

Soil today. Photo: R Morini

spring. In addition, they added compost to the holes when planting. The result was a steady conversion of their red clay into the rich, black loam we all dream about. Since they can't get the leaf product anymore, they have turned to straw as their main mulch, which they add generously, six inches thick, and are satisfied with this result as well.

Till or No-Till

From the mid-1980s until 2016, the Campbells mulched in the fall to protect their soil and tilled the gardens every spring. They started hearing about cover cropping and "no-till" in 2012 and 2013 when Cleve and Fern respectively, took the Extension Master Gardener training course. They started cover cropping, but thinking that no-till was for the big farmer, they kept tilling. However, the information supporting the benefits of no-till was hard to ignore. Finally, a wet spring in 2016 that made tilling impossible, convinced them to give no-till a try.

Despite feeling the need to till to kill surface weeds and fluff up the soil, they recognized that tilling breaks down soil texture and structure, can bring dormant buried weed seeds to the surface, and actually leads to more compaction and runoff over the course of the growing season. In addition, tilling harms the soil life (bacteria, fungi, protozoans, invertebrates, etc.) that makes soil nutrients accessible to plants, and its resulting aeration causes a surge of immediate fertility at the expense of long-term reserves.

So, in 2016 they trimmed a cereal rye cover crop to the ground, let it rest for two weeks, and planted directly

in holes, rows, or whatever the crop demanded. They have been no-till ever since.

What They've Learned

Composted leaf mulch around caged tomatoes. Photo: F Campbell

The Campbell philosophy today places soil health at the top of the priority list. The key elements include:

- The soil should be covered at all times. Coverage can be organic mulch, including when crops are growing, or a cover crop.
- If mulch is used, it should be 6-8 inches thick and left in place over winter. Chopped leaves, straw, and compost are all good mulches. Compost can be integrated into the soil in the spring with a broadfork. Alternatively, leaves and straw can simply be parted to dig a row or planting hole and left in place during the season to conserve moisture and control weeds.
- Cover crops are the best choice to protect soil over the winter and on inactive plots during the growing season. The live roots reduce erosion, suppress weeds, improve water infiltration, and add organic matter to the soil, feeding the soil life that converts it to plant-available nutrients. Best time to cut cover crops is after flowering but before seed setting. Cut them as close to the ground as possible, and let the roots and crowns start to decompose for 10 to 14 days before

planting right into the soil surface. After planting tomatoes, peppers, etc. or when other vegetable seeds such as beans have sprouted, add 3-6 inches of straw or leaf mulch to minimize weeds. Their preferred cover crops are buckwheat and sorghum-sudangrass in the summer and a mix of forage radish, crimson clover, and annual ryegrass over the winter.

- If soil loosening is needed, use a broadfork or similar tool. Drive it into the soil as deeply as possible, and rock it back and forth to loosen without damaging the structure. Let plant roots and soil life aerate the soil over time.

Over the past few years, the Campbells have become convinced that a no-till garden requires less labor, weeding, watering, and digging than a conventionally-tilled plot. They recommend selling the tiller and replacing it with a broad fork.

What They Grow Now

Tomato patch in the lower garden. Photo: R Morini

The current crop roster includes over 40 varieties of tomatoes, hot and sweet peppers (a mix of heirloom and hybrids), and Kennebec, Red Pontiac, and Yukon Gold potatoes. Sweet potatoes and butternut squash are grown in alternate years, due to space requirements. They also grow various types of yellow and zucchini squash, a variety of cucumbers, sweet corn, jade green beans, lima beans, edamame, okra, tomatillos, eggplant, peas, artichokes, carrots, candy onions, bulb fennel, melons (both watermelon and cantaloupes) and ground cherry. Drying beans include black turtle, red kidney, pinto, and cannellini. Fall crops include broccoli, cauliflower, Brussels sprouts, Asian cabbage, collards, kale, garlic, and shallots. Perennials/biennials include rhubarb and cutting celery. They like to try a new crop each year; this year it is sesame.

In addition, they grow strips of pollinator plants in the gardens, and just installed a new, mostly native, wildflower plot near the upper garden. These flowers plus inter-planted buckwheat attract beneficial wasps and other pollinators.

Pest Management

Their philosophy is to avoid pesticides and manage rather than eliminate pests, tolerating some damage. Specific practices include:

- Frequent scouting using the “squish, smack, and swat method”
- Using a jar of soapy water in which to drop Japanese beetles and harlequin beetles
- Using a row cover or application of *Surround* (a kaolin clay product) on eggplant, to prevent flea beetle infestations
- Laying boards on the ground beside squash plants to trap squash bugs, and stepping on them in the mornings
- Yellow sticky tape for cucumber beetles

Using garden produce

The Campbells love fresh fruits and vegetables and harvest twelve months a year. They also can beets, a variety of peppers, pickling cucumbers, okra, fruit jams, jellies, whole tomatoes, tomato and vegetable juice, vegetable soup, roasted tomato-garlic-onion marinara sauce, and the famous Campbells’ salsa. They freeze corn, lima beans, and peas, preferring frozen to canned. They ferment sauerkraut and dehydrate a portion of several crops, including tomatoes, beans (black, red kidney, pinto, cannellini), and some fruits. While they eat some of their harvest, they generously donate to food banks and friends, and avidly campaign against food waste (I went home with a box of garlic, onions, marinara sauce and salsa after our interview).

The relaxing place. Photo: R Morini

The Ornamental Garden

While the vegetable gardens are the most notable feature, ornamental plants are interspersed around this very attractive property. The photo above shows a pond garden they installed that provides a quiet, shaded spot to relax at the end of a day of gardening.

In the early years, the ornamental gardens were populated with the popular plants of the day. Recently

however, they have been adding native plants almost exclusively. Favorites include butterfly weed (*Asclepias tuberosa*), aromatic aster (*Symphyotrichum oblongifolium*) and Christmas fern, all of which are deer-resistant.

Fern in the annual bed with Cleve in the background. Photo: R Morini

Lessons learned

Given their rich and very successful lifetimes of gardening experience, it makes sense to ask them for their best advice for both new and experienced gardeners.

For new gardeners:

- Start small, don't get discouraged. Gardening is a learning process and is never perfect.
- Fern quotes an anonymous sage: "Gardening is medicine that does not need a prescription… and with no limit on dosage."
- Keep a garden journal. Note:
    - What you planted where and when
    - First and last harvest dates
    - Varieties that were successes or failures
    - Pests… date when first seen
    - Weather conditions (including first and last frost dates)
    - Crop rotation
    - Food preservation amounts and inventory
- Find a mentor. Experienced gardeners love to give advice.
- There is a wealth of published information on sustainable gardening techniques. Take advantage of it. A suggested list is provided at the end of the article.

For all gardeners:

- Stay open to new methods. No-till, cover cropping, mulching and composting were not regular practices until fairly recently but they work and have a positive impact on the environment, soil

health, and garden production.

- The trick to making no-till work is to cut the cover crop in the spring (as close to the ground as possible), to wait two weeks for the roots and crowns to soften and then plant into the surface. If compaction is an issue, use a broadfork to loosen the soil. Mulch after planting. It really works.
- Grow plants that are appropriate for our area and your site. Take advantage of a mix of heirlooms and hybrids that can help manage diseases and pests. Don't get discouraged, stay at it.
- Create a diverse ecology on your property. Use organic amendments and fertilizers, and resist pesticides. Spend time in the garden, be observant. Manage pests, don't try to eliminate them.

Where do they go from here?

As Fern and Cleve have gotten older the work involved in keeping up with such a large set of gardens has become a challenge, and at some point will be impossible. So they are trying to figure out how to downsize sensibly. However, as they said recently, downsizing "is so incredibly hard after working so hard to amend the soil. 'Therapy' may be needed."

In any case, we thank Fern and Cleve for sharing their knowledge, philosophy, and amazing gardens with us. It seems appropriate to close the story with one of their favorite quotes by Alfred Austin:

"The glory of gardening: hands in the dirt, head in the sun, heart with nature. To nurture a garden is to feed not just the body, but the soul."

That pretty much sums it up, doesn't it?

Suggested References:

- *Grow Great Vegetables in Virginia*, Ira Wallace of the Southern Seed Exchange
- *The Timber Press Guide to Vegetable Gardening in the Southeast*
- Low and No-Till Gardening, University of New Hampshire https://extension.unh.edu/blog/2020/10/low-no-till-gardening
- "Mulch is the key to no-till gardening," https://extension.oregonstate.edu/news/mulch-key-no-till-gardens
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- *Managing Cover Crops Profitably*, 3rd edition, SARE Handbook Series, Book 9
- *The Organic No-Till Farming Revolution for Small-Scale Farmers*, Andrew Mefferd

Growing Leafy Greens

By Chris Stroupe | September 2022-Vol.8, No.9

Shorter days and cooler temperatures tell us that summer is about to end. But this doesn't mean it's time to wrap up gardening for the year. Leafy greens are an easy and delicious way to squeeze a few more weeks of productivity from your garden. With a little extra effort, it's possible to grow fresh produce all winter.

This article begins with short descriptions of leafy greens that grow well in Virginia. It then discusses how to get leafy greens started in your garden as summer wanes (or as spring begins) and optimize production through autumn, winter, and into next summer.

Types of Leafy Greens

Lettuce *(Lactuca sativa)*: Most home gardeners, including me, find growing leaf lettuce easier than head lettuce (e.g. iceberg). Leaf lettuce comes in a variety of colors, textures, and flavors. Seed mixtures are an economical way to grow a diverse set of lettuces for tossed salads. Some varieties are heat-resistant, which is essential for spring planting.

Lettuce growing. Photo: □□□ (Choe Kwangmo), CC0

Kale and collard greens *(Brassica oleracea var. acephela)*: These greens are related to cabbage, but as the name suggests, don't form heads. How do kale and collards differ? Kale leaves are thinner and softer. In other words, they can be eaten raw. Collards are thicker and almost always cooked before consumption. There are more kale varieties (red Russian, Lacinato/dinosaur/Italian, curly green and red) than collards, which usually have flat, green leaves. All are delicious!

So that's why it's called rainbow chard. Photo: Ruth Hartnup, CC BY 2.0

Swiss chard *(Beta vulgaris)*: Chard is a member of the beet family (beet greens are also delicious). Varieties differ in the color of stems and ribs, from white to yellow to pink to red, but generally taste the same. Chard is highly resistant to bolting in warm weather and can tolerate cold temperatures. In other words, chard planted now can over-winter and will produce through next spring and summer.

Spinach *(Spinacia oleracea)*: Spinach is versatile: it can be harvested early or late, and it's delicious raw or cooked. "Savoy" spinach has thicker leaves with a ruffled surface and a stronger flavor than other varieties. Spinach germinates poorly at high temperatures (above 75°F), so unless you're planning to transplant, it's better for spring planting.

Broccoli raab, aka rapini *(Brassica rapa var. ruvo*, or *Brassica ruvo)*: This relative of turnips (you guessed it, turnip greens are tasty too) is common in Italian cuisine. Raab is leafier than "standard" broccoli, and the stalks are good to eat. The strong, spicy flavor of raab is slightly bitter and a tad sweet. Unless harvested young, it's best when cooked.

Mustard greens *(Brassica juncea)*: This leafy green also has strong, spicy flavor. Typically, it's cooked, although young, raw mustard greens are a great addition to tossed salads. Mustard greens are quite susceptible to bolting in warm weather.

Asian greens: This is a broad category! Asian greens warrant a separate article, which Piedmont Master Gardener Pat Chadwick has recently written. Suffice it to say, these greens grow well in Virginia and are a fantastic addition to any diet. Some well-known examples are mizuna and tatsoi, which have a mustardy, peppery flavor. They are terrific both cooked and raw in green salads. Another variety, gai lan, is similar to broccoli raab. Most seed catalogs offer Asian greens, and transplants are easy to find at local garden centers.

Over-wintered broccoli raab ready for harvest. Photo: © 2021 S. Christopher Stroupe

Growing Leafy Greens

Soil preparation: Prepare the soil before starting your greens. A soil test will tell you if any amendments are needed. Soil pH should be 6 – 7, slightly acidic to neutral. Leafy greens thrive in loamy soil, which can retain moisture without becoming waterlogged. It might be necessary to add compost to clay soil to improve its texture and drainage. A good rule of thumb for clay soil is to incorporate 4 inches of compost into the top 12 inches of soil. That's a lot of compost – and a lot of work – but it will be worth the effort. Regardless of any amendments, thoroughly rake the top 2 inches of soil to break up any clumps.

Getting Started: Leafy greens can be started by transplant or direct sowing into a garden bed. The choice depends on the season and type of greens. For example, spinach seeds germinate poorly at temperatures above 75°F, so transplanting makes more sense for late summer planting.

For direct sowing, follow the directions on the seed packet for depth, spacing, and timing. Cover seeds with

soil, then water thoroughly for good contact between soil and seed. Thin seedlings after a couple of weeks if desired. Trimmed seedlings make an excellent baby green salad.

Transplanting can be done with plants from a garden center or farmers market, or with seedlings you've started yourself. Start seeds on the same timetable as direct seeding, and harden off seedlings before transplanting. Piedmont Master Gardener Liz Sutphen has written a comprehensive guide to starting seeds indoors.

Kale, mustard, and chard seedlings. Photo: © 2022 S. Christopher Stroupe

Cultivation: Leafy greens are vigorous and don't need much coddling. Irrigate and fertilize appropriately. Weed thoroughly but carefully because most leafy greens have shallow roots. Mulch (leaves or grass clippings) can suppress weeds and help soil retain moisture.

Disease and pests: Leafy greens suffer from some fungal diseases, including root rots, downy mildew, and leaf spots. Prevention is easier than cure. Rotate crops to keep soil-borne pathogens from accumulating. To prevent root rot, do not over-water. Amend clay soil to improve drainage. Water in the morning to keep leaves dry. Direct water towards the base of the plants, but don't splash dirt onto the leaves. Practice good sanitation: remove plant debris during and at the end of the growing season. This will deny a habitat to pathogens and insects.

Fungicides can be a helpful preventive. Products containing copper or chlorothalonil are useful against fungal diseases. Consult the Virginia Cooperative Extension Pest Management Guide for more details. Always follow instructions on the product label ("the label is the law") and wait the indicated number of days between application and harvest.

Diamondback moth larva. Photo: Whitney Cranshaw, Colorado State University, Bugwood.org, CC BY 3.0 US

Pests such as aphids, whiteflies, “worms” (actually, caterpillars), harlequin beetles, leaf miners, and slugs are a more serious threat to leafy greens. Again, prevention is easier than cure. Rotate crops to keep plants away from eggs and larvae in the soil. Sanitation (cleaning up plant debris) will deny insects a place to hide in the first place. Some growers use lightweight row covers to keep insects away from leafy greens. Bt *(Bacillus thuringiensis)* can help keep caterpillars away. Diatomaceous earth spread on the ground around your greens can control slugs and soil-dwelling insects.

If insects emerge, hand-pick caterpillars and large beetles off plants. Neem oil is effective against aphids and whiteflies. Control severe infestations with conventional insecticides, including malathion and carbaryl. Consult the Virginia Cooperative Extension Pest Management Guide for more details. Always follow label instructions carefully: “the label is the law.” To minimize harm to pollinators, don’t spray flowering plants, and spray in the evening when pollinators are less active. This advice also holds for organic treatments like pyrethrins and diatomaceous earth, both of which are extremely harmful to honeybees. Use all insecticides with caution since they can kill beneficial predatory insects and pollinators.

Harvest: Use the “cut-and-come-again” harvest method for non-heading greens. Trim the outer leaves of the plant, avoiding the central area where new growth occurs. This practice will allow plants to produce for weeks, if not months, though the plants may look a little funny after a while (see picture).

Over-wintering: Practically every leafy green is cold-hardy and can handle a light frost with no trouble. In fact, flavor usually improves after a touch of frost because the plants respond by producing more sugars for cryo-protection. With help from row covers, leafy greens can easily survive a Virginia winter. Piedmont Master Gardener Ralph Morini’s article on season extension using row covers will tell you everything you need to know. *Four-Season Harvest* by Eliot Coleman is another excellent introduction to this topic.

Over-wintered greens will resume growth in the spring. In my experience, over-wintered kale bolts surprisingly early in the spring, but settles down to “vegetative” growth after I cut back the flowering stems. Bolted raab, on the other hand, doesn’t return to leafy growth after trimming, so I harvest it all in the spring. As mentioned above, chard is the champion of heat and bolt resistance, and can be reliably productive for a full calendar year.

A well-tended “kale tree” Photo: Suzie’s Farm, CC BY-NC-ND 2.0

Preparing Leafy Greens

Simplicity is my personal preference for preparing leafy greens. “Baby” greens can be eaten raw in a tossed salad. Both mixed greens and salads with a single type of green are excellent. Blanching, sautéing, and stir frying are all great ways to prepare mature greens. Blanched greens can be drained and frozen. Or, boost color, flavor, and nutrition by throwing a handful of sliced greens into simmering soup a couple minutes before serving. The soup doesn’t have to be homemade. Of course, thicker greens like collards can be steamed until tender, then served with vinegar or hot sauce on New Year’s Day.

PESTICIDE WARNING

Pesticides (which include herbicides, insecticides, rotenticides, etc.) are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in the original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock. Consult the pesticide label to determine active ingredients, signal words, and proper protective

equipment.Pesticides applied in your home and landscape can move and contaminate creeks, lakes, and rivers. Confine chemicals to the property being treated and never allow them to get into drains or creeks. Avoid drift onto neighboring properties and untargeted areas.

References and Further Reading

Featured photo credit: Sterling College, CC BY 2.0

2022 Pest Management Guide – Home Grounds and Animals Virginia Cooperative Extension

Asian Greens University of California Master Gardener Program of Sonoma County

Asian Vegetables for Virginia Gardens Pat Chadwick, Piedmont Master Gardener

Brassica oleracea (Acephala Group) North Carolina Extension Gardener Plant Toolbox

Crop Profile for Broccoli Raab (PDF link) University of Arizona

How to Control Invasive Pests While Protecting Pollinators and Other Beneficial Insects Michigan State University

How to Grow Swiss Chard Michigan State University Extension

How to Start Your Garden Seeds Liz Sutphen, Piedmont Master Gardener

Leafy Green Vegetables Virginia Cooperative Extension

Mustard University of Illinois Extension

Row Covers Utah State University

Row Covers – A Gardening Season-Extender with Benefits Ralph Morini, Piedmont Master Gardener

Spinach Clemson Cooperative Extension

Spinach Penn State University Plant Village

Virginia's Home Garden Vegetable Planting Guide: Recommended Planting Dates and Amounts to Plant Virginia Cooperative Extension

Upcoming Events

By Cathy Caldwell | September 2022-Vol.8, No.9

Native Plant Sale ⇒ Wintergreen Nature Foundation Greenhouse

Saturday, September 3, 9:00 am — 2:00 pm

Wintergreen Nature Foundation Greenhouse
725 Beech Grove Road, Roseland, VA 22967 (one half-mile west of The Ski Barn on Beech Grove Road – Route 664). To purchase plants at other times, contact The Nature Foundation @ Wintergreen (434-325-7451) or (www.twnf.org).

Tree Identification Walk

presented by Charlottesville Area Tree Stewards

Sunday, September 4, 9:00 — 11:00 am

Pen Park, 1300 Pen Park Road, Charlottesville, VA

Register here.

Garden Basics: The Fall Vegetable Garden

presented by Piedmont Master Gardeners

Saturday, September 17 @ 2:00 pm – 4:00 pm

Trinity Episcopal Church, 1118 Preston Avenue
Charlottesville, 22903
Free (Class is currently full, but feel free to check back later)

Vegetable gardening does not need to stop when the weather turns cool. Discover how you can extend your harvest through the fall. You will learn about: when to start your fall garden; cool weather crops; overwintering.

Find out more »

Select, Plant, and Care for Trees (Zoom)

presented by Charlottesville Area Tree Stewards

Tuesday, September 20, 7:00 to 9:00 p.m.

Perfect timing before our October 1st tree sale to learn how to select a tree for your property that will have the best chance to survive and flourish in the place that you choose for it. Tree Steward Tim Maywalt will discuss best practices for planting and show you how to care for your newly planted tree. **Register here.**

Coming up in October . . .

Garden Basics: Love Food, Hate Waste

October 15 @ 2:00 pm – 4:00 pm

Trinity Episcopal Church, 1118 Preston Avenue
Charlottesville, 22903

Free

RSVP Now!

Examine the problem of wasted food—how much goes to waste, why waste happens, and why waste matters—and how to keep the valuable resources used to produce and distribute food from ending up in landfills.

Find out more »

Late Season Planting with Children: Fall Bush Beans

By mking | September 2022-Vol.8, No.9

Garden Shed children's activities in March and June focused on observation. In this activity for 3 to 6-year-olds, children learn about measurement while planting. September is a perfect time to sow bush beans. Soil diseases and leaf chewing beetles are less of a problem in early fall, and harvesting can continue into November, when there may be fewer edible options from our gardens. In case of an early frost, be prepared to cover the plants with an old sheet or garden row cover. Doing this will extend the harvest period.

Activity: Plant, care for, and record bush bean growth

Objective: Children learn how to plant seeds and take care of bean plants as they grow.

Materials Needed:

- One package of bush bean seeds (If using treated seeds, rinse well before handling)
- String to mark a row
- Two medium-sized stones
- Yardstick, meterstick, or marked strips of paper (the "measuring tool")
- Pen to mark lines in 2-inch increments on measuring tool
- Trowel
- Small watering can (or sturdy paper cups)
- A few handfuls of straw or cut grass for mulch
- Notepad and pencil

Process:

Before going outside:

1. If possible, soak seeds overnight to hasten germination.
2. Mark a dark line every two inches on the measuring tool.

Prepare the planting area with child:

1. Mark the row to be planted with string.
2. Use stones to secure the string on the ground.
3. With a trowel, loosen soil to cultivate a 4 to 6-inch-wide area alongside the string.
4. Smooth out the soil to make it level.
5. Move string toward the middle of the cultivated area.
6. Lay measuring tool next to the string.

Children planting bean seeds at designated markings. Photo: Barbara Gardino

Planting:

1. Show child how to place one seed at each marked line.
2. Direct child to push each seed downward about **an inch** into the soil; help the child identify a one-inch segment of their finger — perhaps from finger tip to a knuckle; cover the hole with soil.
3. Gently tamp down the row of covered seeds and add a light layer of the mulch.
4. Water the row thoroughly.

Daily observation:

1. Check the row and provide water if soil is dry.
2. Pull weeds that appear.
3. Talk with child about what to look for: stem and leaf emergence, changes in height and width, buds and flowers, formation of small string beans.

Record observations:

Help child draw or record: How many new leaves, buds, or flowers appear; bird sightings and sounds; butterflies and insects they see.

Tips:

- With a 3-year-old, it helps to demonstrate how to plant in advance.
- A child-size trowel will enable more involvement.
- For older children, help them make a chart to record observations.
- You can adapt this activity for a container garden on a sunny deck or porch.

This planting activity helps young children develop a meaningful relationship with nature. They will begin to appreciate soil, seeds, insects, and animals and their important role in gardening experiences.

Resources:

https://kidsgardening.org/resource-activities/

https://playofthewild.com/2020/01/21/outdoor-autumn-winter-garden-activities-for-children/