September 2024 - Vol. 10, No. 9

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Fall-Blooming Bulbs and Other Late-Season Oddities

By Cathy Caldwell | September 2024 - Vol. 10, No. 9

We are reprinting Pat Chadwick's excellent article on fall-blooming bulbs from 2016.

If you plan it right, you can have a bulb of some sort in bloom throughout the entire growing season. We're all familiar with daffodils, tulips, crocuses, hyacinths and a host of minor bulbs that typically brighten the late winter and spring landscapes. In summer, we are blessed with warm weather alliums, caladiums, elephant ears, gladiolus, *Liatris*, and lilies of various kinds. It may surprise you to learn that autumn has plenty to offer in the way of bulbs as well. Just as the rest of the garden is beginning to go dormant, the sight of many of the fall-blooming bulbs described below will intrigue and delight you.

COLCHICUM

Colchicum (pronounced KOHL-chi-kum) takes you by surprise when you encounter it in the autumn

landscape. Closely related to lilies (Liliaceae family), it resembles a crocus on steroids.

However, it is not related to the crocus, which is a member of the Iris family and typically blooms in early spring. To add to the confusion, some crocuses bloom in the fall (more on those later), plus *Colchicum* is sometimes referred to as autumn crocus. It produces vase-shaped blooms beginning in September and continuing into November, depending on the species. Without going into all the botanical differences between the two species, here are a few ways to differentiate between a *Colchicum* and a crocus:

Colchicum 'Waterlily' Photo: Ghislain118 http://www.fleurs-des-montagnes.net, CC BY-SA 3.0, via Wikimedia Commons

- Crocus foliage has a white line down the center of each leaf. *Colchicum* foliage does not.
- Crocus blossoms have three stamens. *Colchicum* blossoms have six.
- Crocus foliage occurs along with the blooms. *Colchicum* foliage, which is much larger, appears in spring and then dies back in summer. The flowers appear in autumn without foliage.
- Fall blooming crocus flowers are either white or bluish lavender. *Colchicum* flowers are generally pink or rose lavender, although white forms do exist.
- Crocus flowers are smaller than those of *Colchicum*.

It's crucial to be aware that ***Colchicum* is poisonous. Colchicine, the toxic compound in Colchicum, is extremely dangerous.** Even tiny amounts can be lethal if ingested. A clear and prominent warning about handling this plant is crucial, especially in areas where children or pets are present. Wear garden gloves when handling the corms and check for sap on them. Always wash your hands thoroughly after handling, even if you wore gloves. Avoid touching your face or mouth during and after handling the plant or corms. Pruning or cutting back the plant can expose you to toxic sap, so take extra precautions during future garden maintenance. Also, avoid over-watering, which can cause toxin to leach into the nearby soil. Be sure to have emergency contact information available should you need to use it. It's critical to understand that there is no antidote for colchicine poisoning. If exposure occurs, immediate medical attention is necessary, but outcomes depend largely on the amount of toxin absorbed.

In addition to the species, a number of *Colchicum* hybrids are available through catalogs and on-line sources, including the following selections:

- 'Violet Queen' has deep lilac blossoms with white veining.
- 'Lilac Wonder' has amethyst segments with white lines in the center and is very free flowering.
- 'The Giant' has mauve flowers that are white at the base. At 10 to 12 inches tall, it is one of the tallest of the *Colchicum* hybrids and is one of the most free flowering.
- 'Waterlily' is a double-flowered selection with pinkish-lavender blossoms that resemble those of its namesake in color and general form. This beautiful selection is one of the most popular of the *Colchicum* hybrids.

In addition to its toxicity, another downside to some *Colchicum* species is that their blossoms, which

generally grow about 6 to 8 inches tall, tend to flop over after a few days. A solution to that problem is to plant the corms beneath a ground cover which will support the blossoms.

AUTUMN CROCUS

Crocuses are normally thought of as one of the earliest blooming of the spring bulbs. However, the genus includes a number of fall-blooming crocus species as well. With the exception of *C. niveus*, which has white flowers, the members of this fall-blooming group bloom in various shades of lavender. All of the autumn-blooming species are interesting, but the following two stand out as being of particular interest:

Crocus speciosus (Showy crocus) – This heirloom species, dating back to 1800, blooms in shades of mauve to violet blue. Just a few hybridized showy crocus selections include:

- **'Cassiope'** – Large bluish lavender flowers
- **'Aino'** – Large, deep bluish-purple flowers
- **'Conqueror'** – Large, violet-blue flowers, which are significantly larger than other *C. speciosus* species.

Crocus sativus. Photo: Crocus sativus 02 by Line1.JPG. CC BY-SA 3.0

Saffron Crocus (*Crocus sativus*) is the source of saffron, the culinary spice used to color and flavor many Indian, Asian, and Mediterranean dishes, including curries and Spanish paella. It takes about five dozen *C. sativus* blossoms to produce just one tablespoon of the reddish-orange threads, which are actually the stigmas from the blossoms. Each purple, cup-shaped blossom contains three stigmas. For the home gardener interested in growing *C. sativus*, plant two or three dozen bulbs in a sunny, well-drained location. They will gradually multiply, providing more of the spice with each successive year.

STERNBERGIA LUTEA

Commonly called lily of the field, this heirloom (pre-1601) bulb, a member of the Amaryllidaceae family, has identity issues. Its golden yellow blossoms look similar to those of a crocus. However, *Sternbergia lutea* is neither a lily nor a crocus. To add to the confusion, this bulb is sometimes referred to as autumn daffodil, yet it bears no resemblance whatsoever to daffodils other than its color. Despite the confusion about its identity, this four to six-inch tall plant provides plenty of color in the September landscape. It shows to best advantage at the front of the border either in small scattered groupings or in a large mass planting. The foliage appears along with the flowers and persists until spring before it finally dies back.

CYCLAMEN

A member of the Primulaceae family, low-growing Cyclamen is an excellent addition to rock gardens and naturalized shady woodland gardens.

The flowers range from white to deep magenta pink. While the uniquely shaped, reflexed flowers are dainty and lovely to look at, the beautifully mottled heart- or arrow-shaped foliage catches the eye in a natural setting. Depending on the species, the leaves may be marked with silver spots or zones or various shades of green or gray. The leaves and flower stalks arise directly from the Cyclamen tuber. Of the 20 species of Cyclamen that exist, choose the hardier forms for the autumn garden, such as *C. hederifolium or C. purpurascens*, which can thrive in USDA Zones 5 or 6. Do not confuse the hardy forms of Cyclamen with *C. persicum*, a large-flowered strain that was bred in the late 1800s for use as a house plant.

Cyclamen hederifolium. Photo: H. Zell, CC BY-SA 3.0, via Wikimedia Commons

LYCORIS RADIATA

Lycoris radiata, Photo: Kakidai, CC BY-SA 4.0, via Wikimedia Commons

A member of the amaryllis family, this heirloom bulb is known by a series of common names (spider lily, magic lily, hurricane lily, surprise lily, naked ladies, resurrection lily, etc.). The bulbs typically lie dormant until late summer or early autumn rains trigger it to bloom. At that point, one to two-foot tall leafless flower stalks rise from the soil,

each bearing umbels of four to six dramatic coral-red flowers. Each flower has very long spidery-looking stamens, which lends it an airy look and is the source of its common name of spider lily. The blooms fade quickly in hot weather but will last a bit longer when planted in partial shade. Once the flower stalk dies, the bulb sends up long, strap-like, grayish green leaves, which persist through winter and then die back in spring. Spider lilies naturalize by bulb offsets and will form

small colonies over time. In addition to the red-blooming species, a variety called *Alba* has white blooms. A related species (*L. aurea*) produces golden yellow blossoms.

Lycoris squamigera. Photo: Namazu-tron, CC BY-SA 3.0, via Wikimedia Commons

LYCORIS SQUAMIGERA

This cousin of *L. radiata* is the most cold hardy of the *Lycoris* species and shares many of the same common names as its red-flowering counterpart — naked lady, resurrection lily, or surprise Lily. Like *L. radiata*, this species is at its most glorious as a mass planting. The foliage appears in the spring and then dies back. In late summer, one to two-foot tall sturdy leafless scapes rise from the soil, each bearing 6 to 8 trumpet-shaped blossoms in a crown. The flower color on this species is a delicate shade of pinkish lavender. The blossoms are long lasting on the plant and as a cut flower in floral arrangements. The bulbs don't like to be disturbed after they are planted and may not come up the first year. Divide the bulbs when flowering starts to become sparse and replant them immediately. They don't like to dry out.

CANNA LILY

Canna lily is the exclusive member of the Cannaceae family and is another fall-blooming bulb (rhizome, actually) that swings into action in August and September when the rest of the garden is winding down. Nine species from the Americas and Asia belong to this family of plants. Most cannas grown today are hybrids that have been bred specifically for flower size and leaf coloration. For such hybrids, *C. flaccida* from Florida is the principal parent for flower size and *C. indica* from Central America is the major parent for variegated foliage. Height is an important consideration when selecting cannas for the landscape. While many selections top out at three to four feet, the tallest canna species or hybrids can grow to more than six feet. Fortunately, for gardeners who want a vertical accent but not one that tall, many shorter hybrids are available, including some dwarf varieties that grow only 18 to 24 inches tall. The shorter varieties make great accent plants for container gardens. Cannas bloom in a wide range of colors with interesting looking flower spikes that can last for several weeks. They attract pollinators of all kinds, including bees and other insects, hummingbirds, and even bats. Collectively, canna lilies make a dramatic statement in the mixed border with their bold foliage, colorful flowers, tropical appearance, and vertical form. While some canna selections are reported to be hardy in USDA Zone 7, others need protection from cold, wet winter conditions. If in doubt, carefully dig up the rhizomes to avoid damaging them and store them in a cool, frost-free area over winter. Replant in spring once the danger of frost is past.

Canna indica. Berthold Werner, CC BY-SA 3.0, via Wikimedia Commons.

DAHLIA

Members of the *Asteraceae* plant family, dahlias are perhaps the quintessential late-season flowering bulb. Originating in Mexico and Central America, this most glorious of fall-blooming bulbs was prized by the Aztecs centuries ago. Finding its way to Europe in the late 1700s, it became widely hybridized and eventually circled back to the New World, where it is enthusiastically grown by both collectors and gardening amateurs alike. For those of us who think the rose is the queen of the ornamental garden, it could be argued that the glorious, dramatic, scene-stealing dahlia presents some serious competition for the title. More than 20,000 dahlia cultivars are listed on the Royal Horticultural Society's International Registry. The American Dahlia Society recognizes a number of dahlia forms, including collarette, waterlily, decorative, ball, pom pom, cactus, anemone, and single-flowered. Technically a tuber rather than a bulb, dahlias should be planted about two weeks before the last expected frost in a sunny location in soil that has been deeply cultivated and amended with organic matter. In autumn, carefully dig up the tubers after frost kills the foliage. Once the soil dries on the roots, clean them with a soft brush or cloth and store in a well-ventilated, frost-free area.

Dahlia Blossoms. Photo: Pat Chadwick

CULTURAL REQUIREMENTS AND CARE OF FALL-FLOWERING BULBS

Fall-flowering bulbs, corms, rhizomes and tubers are generally low maintenance and have few cultural requirements.

- Before planting, choose the site carefully. Some of these plants do not like to be disturbed once they are planted.
- Of the bulbs described, most prefer a sunny to partially shady site. *Colchicum* and autumn crocus will bloom only when the flowers are exposed to sunlight. Cyclamen, on the other hand, prefers some shade.
- Plant in moderately fertile, well-drained soil. Good drainage is particularly important in winter.
- Plant at the proper recommended depth for the species.
- Plant with the root side down. If it's not possible to figure this out, plant the bulb on its side.
- Mark where autumn-blooming species are planted to avoid planting over top of them in spring.
- In the absence of rain, provide some water during periods of drought. Some fall-flowering bulbs require moisture in order to bloom.
- Most autumn-blooming bulbs are deer, rabbit, and vole resistant and subject to few, if any, plant diseases.

When to plant fall-blooming bulbs

Some experts recommend planting fall-flowering bulbs in August (University of Maryland Extension), while others recommend planting in early fall (University of Tennessee/Horticulture) or simply late summer or early fall (Iowa State Extension/Colchicum). "You can plant a bulb in summer for bloom that fall" (North Carolina State University Extension/ Colchicum).

SOURCES

American Dahlia Society (http://www.dahlia.org/)

Bulbs (Bryan, John E., 2002)

Clemson Cooperative Extension Pub. HGIC 1156, 'Summer- & Fall-Flowering Bulbs, (www.clemson.edu)

"Dahlias," Chicago Botanic Garden article (http://www.chicagobotanic.org/plantinfo/dahlias)

50 Beautiful Deer-Resistant Plants – The Prettiest Annuals, Perennials, Bulbs, and Shrubs that Deer Don't Eat (Clausen, Ruth Rogers, 2011)

Schoolyard Gardening Projects

By mking | September 2024 - Vol. 10, No. 9

Second grader delighted with children's garden at Crozet ES.

Nothing compares to the bright smiles of children in a garden! Curious about the outdoors, eager to explore, and excited to learn, children of all ages delight in hands-on experiences with seeds, colorful flowers, fresh produce, and the soil beneath their feet. Beginning in 2021, to further this enthusiasm, the Piedmont Master Gardeners established a partnership with three elementary schools in different sections of the county: Greer (central), Crozet (western) and Stony Point (northern). These collaborative efforts continue today. In addition, PMG provides grant funding for other horticulture projects that focus on youth education. On an annual basis, local schools and nonprofit organizations are invited to apply for these grants to purchase tools, supplies, seeds, and other equipment to support on-site gardening efforts. This year, 23 projects in Albemarle County were funded. Plus, to support schools that offer compost education, PMG provides knowledgeable, experienced volunteers for on-site assistance.

This article focuses on the special elementary school partnerships. PMG involvement at each location is designed to address the distinct needs of that school site and its student population, which leads to unique models of successful engagement. At each site, schoolyard gardening activities have captured the hearts and minds of students, staff, families, and volunteers. In the words of Steve Saunders, Principal at Greer ES, “This project is nothing short of miraculous. It is exceeding our wildest expectations.”

Stony Point ES students use magnifiers for close-up observation inside a flower.

Greer Elementary School

The outdoor facilities at Greer ES include a beautiful courtyard with rain gardens, flower beds to attract pollinators, eating areas, and a fully accessible sensory garden (installed Spring 2024), as well as a large fenced-in, raised-bed garden with benches and teaching stations behind the school building (completed Spring 2022).

Raised garden beds and seating area at Greer.

A core team of master gardeners coordinates this initiative for students in grades K, 1, and 3, planning activities that target Virginia Standards of Learning (SOLs) in science, social studies, math, and literacy. Children’s literature selections are also provided for monthly lessons to reinforce concepts presented during those experiences in the garden.

Master gardener Gigi Werner-Winslow explains how to plant tiny seeds in soil.

On a monthly basis with support from schoolyard lead teachers at Greer (Emily Bell, Katie McLaughlin) and following a regular schedule established with

teachers in advance, PMG volunteers meet with 15 different classes outside in the gardens (weather permitting). With teacher guidance, children from each class are divided into small groups, which facilitates meaningful communication and interaction with a wide variety of materials (provided by PMG).

Kindergarteners plant seeds in garden at Greer.

Lessons and activities focus on plant parts and function, seeds/planting/germination, plant growth and life cycles, pollinators, butterfly host and nectar plants, worms and composting, healthy soil, observation skills, measurement, and harvesting and tasting fresh produce.

Kindergarteners observe courtyard garden with Master Gardener volunteers.

To help prepare and maintain the garden areas at Greer, workdays are organized several times during the year. UVA's Alpha Phi Omega (APO) student service volunteers join master gardeners to pull weeds, spread mulch, and keep the flower beds in great shape. Remarkable camaraderie and cheerful spirits demonstrate that gardening is a delightful way to spend time together!

At the end of the academic year, Assistant Principal Becca Irvine coordinates tasks with the Greer PTO, that enthusiastically supports this program, to sign up families who are willing to water and take care of the gardens during summer months. The bonus? They get to harvest and consume any vegetables that are ready to eat! PMG volunteers have created short, user-friendly videos (translated into several languages) to show families what to do in the garden to keep it healthy and happy in June, July, and August.

Greer staff members appreciate the children's rich exposure to outdoor education and PMG's support for VA SOLs. Principal Steve Saunders is impressed with "the impact on the entire school." He has complimented PMG on being "a committed partner that stays well-connected with school staff throughout the year." He adds, "We continue to be grateful for you all and the many ways you've supported our school and students."

School Board Member Rebecca Berlin joins children as they sing about plant parts.

This spring, a visit from Albemarle County School Board Member Rebecca Berlin was a wonderful treat for everyone. Dr. Berlin observed activities with kindergarteners in the courtyard. With her background in early childhood and special education, she was happy to participate actively, joining students in a song about flower parts and functions.

Expressing gratitude in a note, one student said, "I love gardening with you. I love everything you do."

Another student summed up her feelings: "You are the best gardeners ever. Every time I go there, I learn something new."

Gratitude from a third grader

Flashing a huge smile at a spring meeting with PMG volunteers, Assistant Principal Becca Irvine sums up her feelings about Greer gardening activities: "Thank you all so much for everything you are doing to support this project. We just love it!"

Crozet Elementary School

Proudly labeled a "green school," outdoor areas at Crozet Elementary include several attractive pollinator flower beds with a variety of native plantings. Second grade teacher Barbara Honeycutt, who provides a key leadership role for gardening at Crozet, is wildly enthusiastic about outdoor education. She and her grade-level colleagues instill a genuine love of nature amongst their second graders, and that exemplary model is contagious throughout the entire student population.

During a recent renovation of the school building, many existing plantings at Crozet had to be moved to accommodate the new construction. Crozet families and PMG volunteers assisted in those efforts, digging diligently to create new beds, adding compost, and marking spaces for more than 120 flowering plants. Later, a charming new children's garden was created behind the building, where PMG volunteers helped children use a variety of tools to install native plantings.

Student gathering mulch with Ms. Huneycutt.

PMG volunteers working in new children's garden at Crozet ES.

The primary PMG project activity at Crozet takes place every April to commemorate Earth Day and the importance of taking care of our planet. This year, PMG volunteers organized an outdoor day for second graders, and lessons focused on the crucial relationship between pollinators and native plants. Crozet students were delighted to add pollinator-friendly plants to beautify their own children's garden bed. They loved learning about pollinators, digging in the soil, planting, watering, and spreading mulch around nearby trees while exploring special items, such as snake skins and birds' nests, in the newly installed "Discovery Boxes" around the bed.

Teacher Barbara Huneycutt expressed her gratitude: "Thank you so much for coming out on Earth Day to help second graders add new plants in the children's garden. Students were so proud of their efforts and have since gone out daily to check on "their plants." My colleagues commented on how well PMG volunteers interacted with students. "It was such a huge success!"

One of her students exclaimed, "I loved getting to plant and watering the plants at recess each day!"

What fun! All smiles in the garden!

Pollinator discussion with second graders at Crozet.

Ms. Phillips' class gushed with enthusiasm: "We had no idea how many different pollinators there are. We thought only bees had the job of pollinating, but moths, bats, beetles, and flies also help. We would like to thank the Piedmont Master Gardeners for coming to our school, teaching us, and helping us plant."

Ms. Howell's students added an element of anticipation, "We had so much fun planting outside! We loved watering the flowers and can't wait to watch them bloom. Thanks for coming to help our community!"

Second graders enjoy watering their new plants.

Master Gardener Fern Campbell helps students add new plants to the Children's Garden Bed.

Croze t Princi pal Staci Engla nd sent a note of gratit ude to PMG, sayin g, "We very much appre ciate all of you! Thank you for helpin g to teach our stude nts the impor tance of worki

ng with the earth. ”

Every year, Piedmont Master Gardeners offer guidance and on-site support for Crozet staff and community volunteers at productive fall and spring workdays to maintain garden areas. Participants include families (parents and children) from the Crozet PTO, Dr. Staci England, UVA’s APO service fraternity, UVA students majoring in environmental science, Western Albemarle High School students from the Earth Warriors Club, and teams from the United Way Day of Caring. These lively crews accomplish lots of weeding, mulching, and edging in the flower beds to upgrade the physical appearance of school grounds. The striking results of those efforts speak volumes about the enduring strength of this partnership.

Stony Point Elementary School

Outdoor gardening experiences are alive and thriving at Stony Point, where handsome flower beds adorn the entrance to the building and a well-stocked greenhouse and eye-catching raised beds are nestled comfortably behind the school. In addition, two intriguing theme-based courtyard areas – literacy garden and Japanese garden – are accessible from the interior of the building. Principal Maureen Jensen and Assistant Principal Paula Gately are steadfast champions of environmental education who encourage outdoor learning, and parent volunteer Amber Capron, who is familiar with the school and staff, is a fantastic on-site partner for PMG.

During the spring of 2023, Stony Point offered an outstanding after-school garden club for children in grades K-2. Amber Capron organized a variety of hands-on experiences, and PMG volunteers led small multi-age groups on a weekly basis. Activities focused on seeds and planting, plant life cycles, soil, taking care of gardens, critters in the garden (beneficial and pests), and beekeeping.

Debbie Chlebnikow talks to children about edible plant parts.

Master Gardener Michelle Mrdeza helps student taste local honey.

This year, with a goal of involving all students at Stony Point in horticulture, PMG

partner ed with Stony Point to plan a specta cular Earth Day celebra tion on April 19. Assista nt Princip al Paula Gately and Amber Capron helped coordin ate logistic s, so that every grade level had an opport unity for active engage ment in small groups.

Students learned about pollinators and why they are important, investigated bees and how they make honey, dissected fresh flowers to discover how pollination works, explored edible plant parts, and matched seeds with plants.

Master Gardner Melissa King talks about how bees spread pollen while visiting beautiful flowers.

Master Gardeners engage curious children at activity station about plant parts that we can eat.

Utilizing a paved open space outside the building, PMG volunteers set up three activity stations, so that children could rotate

through these hands-on activities at assigned times. With a nod to the lasting effects of elementary school learning, the floral department manager at the Harris Teeter gro

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All SPES students were happy to receive colorful stickers with details about how to protect pollinators, plus a packet of marigold seeds to take home. Teachers and families also got digital copies of additional activity suggestions, such as books to read, videos to watch, and games to play (e.g., pollinator bingo), to extend children's learning after Earth Day.

Students explore stamens laden with pollen inside a lily.

In reflecting on that special schoolwide project, Paula Gately remarked, "I was very excited about this event, and it surpassed my expectations!"

With a big grin on her face, one student said, "It was a great day! When can we do this again?"

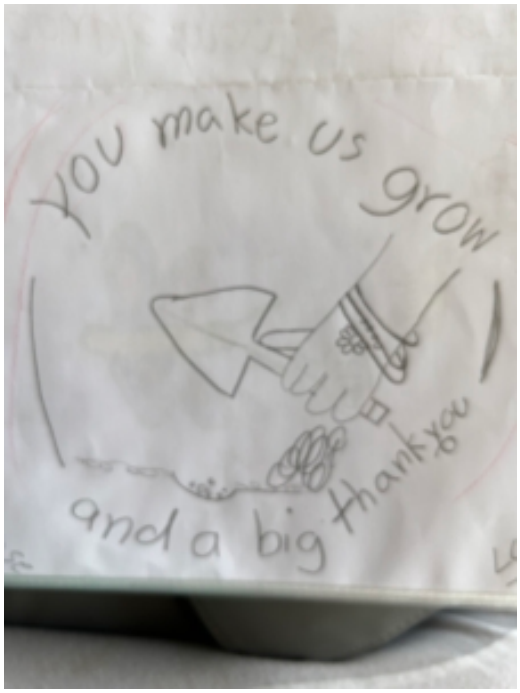
Students examine flower parts with Master Gardener Janet Anastasi.

Looking Ahead

These outstanding schoolyard gardening projects show that dedicated time with children in a garden leaves an indelible impression of unrivaled delight. Each project is customized to meet the needs of the specific site, and every project reflects the strategic goals of the Piedmont Master Gardeners:

- Support environmental stewardship
- Focus on horticulture's importance and impact on daily life
- Increase awareness of the benefits of food systems and locally grown foods
- Develop local volunteers for horticulture education

Time and time again, engaging with people of all ages in the local community brings joy to every master gardener. Hopefully, this article motivates you and others to learn more about our efforts in Albemarle County Schools. Perhaps you will think about how you can be involved in future horticulture projects!


you make us grow
and a big thank you


Thank you
for helping
us grow!

September in the Edible Garden

By Ralph Morini | September 2024 - Vol. 10, No. 9

September is a busy month for committed edibles gardeners. Key tasks include harvesting, cleaning up spent crop vegetation, final planting for fall/early winter harvest, and cover cropping or mulching beds that are finished for the season. We'll briefly touch on each area.

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. Generally, ripening tomatoes off the vine goes best when the fruit is kept out of direct sunlight in moderate temperatures. Adding ethylene to their environment can speed things up. Placing tomatoes in a paper bag with a banana is a commonly suggested approach.

Anthracnose on tomato. Photo: R Morini

It is late in the year to offer this advice, but for the first time I have had a problem with anthracnose on my tomatoes. Anthracnose is caused by fungal spores that spread via wind, birds and insects to moist fruit surfaces and cause bruise spots that penetrate into the fruit while expanding on the surface, causing rotting. The bruises can appear when fruit is on the plant or when tomatoes are ripening on the kitchen counter. Reduce risk of infection by mulching soil to restrict spore movement. If plants are infected, don't leave fruit on the ground; dispose of the vegetation and don't compost infected fruit. The fruit and seeds can carry the disease and pass it on. It is best to rotate plants like tomatoes and potatoes, repeating garden location only every 3 or 4 years. Lightly infected fruit can be safely eaten if the damaged flesh is removed.

On a happier note, now is 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

Excellent vegetable planting and harvesting guidance is contained in VCE publication Virginia's Home Garden Vegetable Planting Guide, just remember that the hardiness zone map has not been updated yet. Albemarle county is now Zone 7b, not 7a as the map indicates.

In our new local hardiness zone 7b, some produce and vegetables can be planted from early to late September. These include beets, kale, chard, collards, kohlrabi, leeks, and turnips. Spinach, lettuces, mustard and radishes can be planted until the end of the month or even into early October, depending on weather. The earlier they are planted the better since growth will slow as days shorten and temperatures drop. Keep time-to-harvest in mind when planting. Our expected first frost in Hardiness Zone 7b is 10/25 to 11/5, so frost sensitive crops want to be planted early enough to have time to mature before the first freeze arrives.

Row cover over greens. Photo: R Morini

Many pests will continue attacking plants until frost. Picking pests and spraying plants can help control them. Row covers can protect new plantings from fall predators. Row covers can also extend the growing and harvest times for the cooler weather crops. For mature plants that are already susceptible to pest damage, row covers are not a good idea until after frost kills the pests. A row cover can provide a 4-5 degree temperature benefit and extend the growing season for a variety of greens, including spinach and lettuces. 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: 2024 Pest Management Guide from the VA Cooperative Extension.

Preparing Beds for Winter

If you are finished for the year, this is the time to clean up, amend soil and protect soil for the winter.

Fall is a great time to do a soil test. Learning needed amendments and adding them now, provides a head start for strengthening the soil by spring. In the Charlottesville/Albemarle County area test kits and instructions are available from the Extension office at 460 Stagecoach Rd, Charlottesville, second floor.

Next, 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 chopped up and composted or spread on the soil and allowed to decompose over winter.

Once beds are cleaned, best practices are to either cover crop or mulch the growing beds. Prior to that,

smooth the beds and add amendments recommended on the soil test.

Next choose whether to cover crop or mulch. While cover cropping is best, adding a few inches of organic mulches like compost, chopped leaves or leaf mold and/or aged wood chips, will protect the soil during the winter and add organic matter over time.

Winter cover crop and straw mulch. Photo: R Morini

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 few basic cover crop choices:

- **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 after flowering but 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 provide broader soil benefits. A mix 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 root mass to the soil respectively. They can be cut during the flowering stage, prior to seed formation, and allowed to rest for a couple of weeks before planting. The cut vegetation can be used as a mulch or removed and composted.
- Cover cropping blends well with converting your beds to “No-Till” gardening. For more info on this proven effective and growing soil management practice check-out the Garden Shed article No-Till in the Home Garden: Why and How.

Preparing New Beds

Prepping soil for cover crop planting at IRC garden. Photo: R Morini

If you are planning a new garden or garden expansion for next year, fall 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 volunteers are preparing the surface for a mixed 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 Try Cover Cropping: A Guide for Home Gardeners 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 or aged wood chips, topped off with a few inches of straw 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.

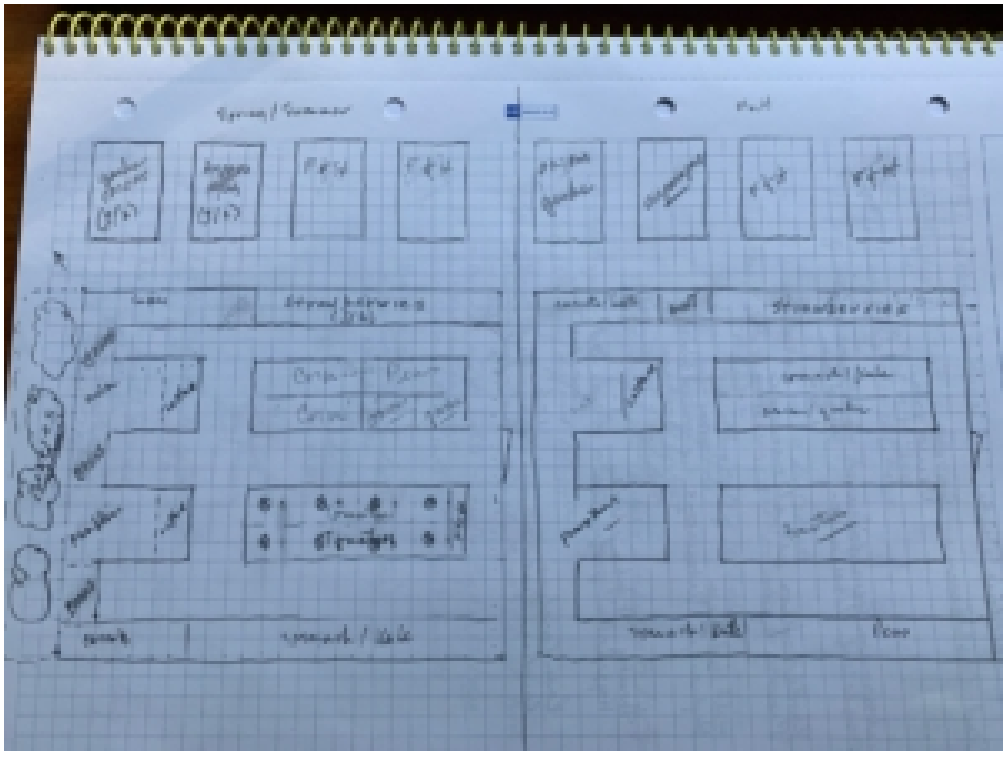
General Tips

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 indeterminate (vining, long-lived) 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.

Don't cut asparagus ferns (stalks) until they turn brown and dormant. This is typically later in the fall. Best to give the plant time to store photosynthesized nutrients in its roots to fuel spring re-growth.



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 guide rotation next spring, an important pest and disease management practice.

Continue to weed the garden to prevent the weeds from going to seed and germinating next 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*.

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Kale

By Chris Stroupe | September 2024 - Vol. 10, No. 9

Fans of “Cheers” might remember when kale literally was a punchline. In the ensuing 34 years, however, kale’s popularity has increased enormously – deservedly so, in my opinion. Kale is quite nutritious: it’s full of fiber, surprisingly high in protein, and a rich source of vitamin C. Kale also tastes great, despite what Woody Boyd might say. Try a baby kale salad with lemon-tahini dressing, or add kale to fruit smoothies to dial back the sweetness. Homemade kale chips are always a tasty idea.

Kale is easy to grow in the home garden. It’s cold-hardy, so with just a little extra effort you can have fresh kale year-round. This article describes kale varieties and tells how to start kale and keep it free of diseases and insects. It also includes techniques for growing kale all year long. In Virginia, September is a great time to start kale as a winter crop.

Kale varieties

Kale belongs to the species *Brassica oleracea*, the same species as cabbage, cauliflower, and Brussels sprouts. Kale falls under the *acephala* variety of *B. oleracea*, i.e. “headless.” (Collards are also *B. oleracea* var. *acephela*, and we’ll cover them in a future article.) The name kale comes from the Latin word *caulis*, meaning stem. Historians believe that kale has been a distinct crop for thousands of years, originating around the Mediterranean Sea.

Kale varieties include:

- Lacinato/Tuscan/dinosaur: Heavily crinkled leaves which are tender and delicious raw. Leaves can be quite skinny, only a couple of inches wide, or as wide as 6”. Colors range from light green to dark green or almost black. In my experience, Lacinato kales are magnets for insect pests, making them useful as “trap crops” (see below).

Lacinato kale. Photo: Noelle, CC BY 2.0

- Curly, green and red: Leaves are tough unless harvested young but are delicious and soften nicely when sliced and cooked, such as in soups. Their curliness adds texture and visual appeal.

- Red Russian: Flat wide leaves with long skinny lobes and red-purple stems and veins. These are very tender, even when mature.
- Siberian: Moderately curly with green leaves that have white stems and veins. Fairly tough leaves, so mostly eaten cooked. As the name suggests, this variety is extremely cold tolerant.

Within these general varieties there are cultivars that represent different combinations of taste, color, texture, cold tolerance, etc. There are also many hybrid varieties. Cornell University maintains a list of kale varieties with helpful ratings from growers.

Starting kale plants

Outdoors To start plants outdoors from seed, sow in late winter or summer. The Virginia Cooperative Extension Home Garden Vegetable Planting Guide lists planting dates for each USDA hardiness zone in Virginia. Note that the guide has not been updated with the latest USDA hardiness zone map. Planting dates for each zone are accurate, but consult the USDA map rather than the map in the guide to find your hardiness zone.

Kale germinates between 45°F and 85°F. Use a soil thermometer to determine optimal planting date(s). Shade cloth or a sheet of clear plastic are useful for lowering or raising, respectively, the soil temperature.

Prepare the soil by loosening it with a broadfork or spading fork, then rake to break up clumps. If starting a new garden bed, work 4” of compost into the top 12” of soil. Otherwise, we recommend no-till methods for established garden beds. Add fertilizer following the recommendations from a recent soil test, raking it into the top 6” of soil. Our Soil test kits are available from the Virginia Cooperative Extension office in the Albemarle County Office Building, 460 Stagecoach Rd. in Charlottesville.

Sow seeds ¼ – ½” deep, spaced 1” apart, in rows 18 – 30” apart. Keep the soil moist until germination, especially if it tends to crust over. After seedlings are well-established, thin them to 18 – 24” inches apart.

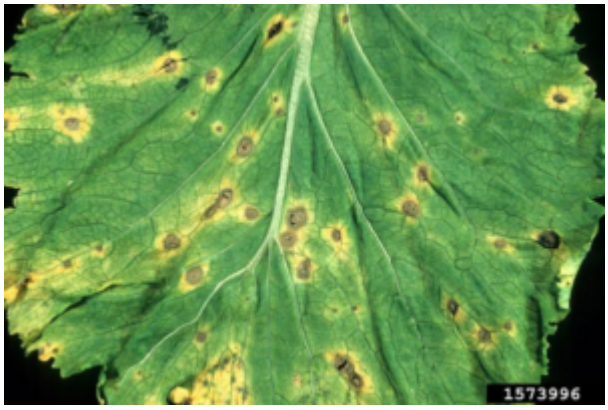
Kale seedlings. Photo: Rick Gordon, CC BY-NC-ND 2.0

Indoors If you are planting indoors for transplanting later, plan to transplant about 4 weeks before the average date of the first frost. That means you should sow seeds 4 – 6 weeks before the target date for transplanting. Remember to harden off seedlings by putting them outside daily for increasing lengths of time, starting 7 – 10 days before transplanting. For details about starting seeds indoors, consult Piedmont Master Gardener Cleve Campbell's classic article.

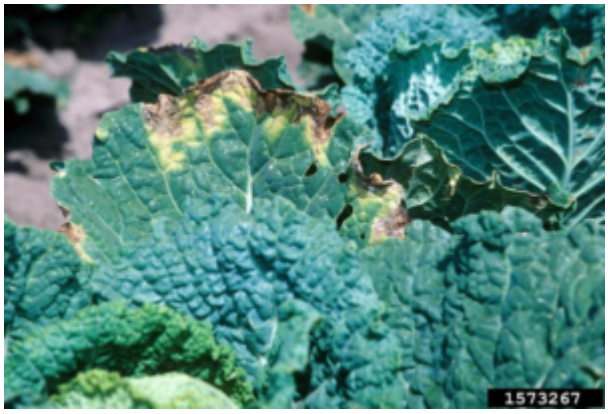
Diseases

In general, kale is not seriously affected by diseases, but a few can cause trouble:

- Alternia leaf spot: Round brown spots on leaves and, in other *Brassicas*, heads. The spots usually have yellow halos.
- Black leg: Sunken brown patches form near the soil line. The pathogen damages vascular tissue, so if the patches encircle the stem, the plant will die.
- Black rot: Yellow lesions develop at the edges of leaves, eventually turning brown. Damage may spread to vascular tissue and, if present, the head.
- Clubroot: Plants are wilted and stunted, even when the soil is moist. Roots become swollen and gnarled.



Alternia leaf spot. Photo: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org. CC BY-NC 3.0 US



Black rot. Photo: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org. CC BY-NC 3.0 US

Stem canker caused by black leg. Photo: Rui map Zheng, Bugwood.org, CC BY-NC 3.0 US (contrast adjusted)

Clubroot. Photo: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org. CC BY-NC 3.0 US

Most diseases can be prevented using good sanitation and cultural practices. Pathogens are spread by seeds, so buy from a reputable supplier. If you are saving seeds, don't keep any seeds from infected plants. Separate outdoor plants by at least 18" to promote air flow, which will keep plants dry and reduce fungal

growth. Be sure to remove infected plants immediately: nothing will cure them! Slow the spread of pathogens by washing soil off your tools, then disinfecting them with a 10% bleach solution. Insects also spread disease, so follow suggestions for insect control (see below). At the end of the growing season, clean up all plant debris. If possible, rotate crops and avoid growing kale where *Brassicas* have grown for the past two years.

A fungicide spray program might be useful to prevent infection, but that won't do anything to cure established diseases. Consult the VCE Pest Management Guide for details about fungicides for kale. When using fungicides, always follow the instructions on the label and use personal protective gear.

Very hungry caterpillars. Photo: Chris Stroupe. CC BY-NC-SA 4.0

Insect pests

Insects, on the other hand, can be extremely damaging to kale (see picture). Major pests include:

- Aphids: Tiny green, yellow, or gray insects that suck sap out of plants, causing wilted or shriveled foliage. Short life cycle; infestations develop rapidly.
- Cabbageworms: Small leaf-eating green caterpillars that develop into white moths. Sometimes called cabbage whites. Hard to see but can reduce a leaf to a skeleton very quickly.
- Cabbage loopers: More small green voracious leaf-eating caterpillars, identifiable by their hunched appearance (see picture). Develop into brown moths.
- Flea beetles: Tiny and hard to see, but their damage is unmistakable: many small round holes on leaves. Usually won't kill a plant but the

damage reduces vigor.

Aphids and their damage: shriveled and deformed foliage. Photo: Renjusplace, CC BY-SA 3.0

Cabbage looper. Photo: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org. CC BY-NC 3.0 US

Well-camouflaged cabbageworm larvae. Photo: Whitney Cranshaw, Colorado State University, Bugwood.org. CC BY 3.0 US

Flea beetles and their damage. Photo: Whitney Cranshaw, Colorado State University, Bugwood.org. CC BY 3.0 US

of a kale leaf. Photo: Whitney Cranshaw, Colorado 3.0 US

Prevention is the best way to handle insects. Clean up all plant debris at the end of the season to reduce over-wintering any insects. Rotate crops to keep seedlings away from insects that do survive the winter. Scout plants for damage and eggs – check the undersides of leaves (see picture) – and trim affected leaves. A light row cover will keep moths from laying their eggs on your plants without reducing growth much (see below).

Some kale varieties, especially Lacinato, are more attractive to insects. It's not clear why: perhaps the sugar content or the toughness of the leaf tissue. Regardless, I often find a skeletal Lacinato plant next to a healthy Red Russian. Thus, try growing a few Lacinato plants interspersed among the rest of your kale as a trap crop, grown not for harvest but to attract insects. The insects in your area might have different preferences, so try several kale varieties and note the outcomes.

Insecticides can be helpful for preventing insect damage or for treating severe infestations, but avoid causing harm to pollinators: spray carefully, so insecticides don't drift onto flowering plants, and spray in the evening when bees aren't likely to be active. Detailed information about insecticides can be found in the VCE Pest Management Guide. Always follow the instructions on the label and use personal protective gear when spraying insecticides.

Year-round kale harvest

Kale is cold-tolerant and can handle a

hard freeze of 26-28°F, even when plants are unprotected. In fact, flavor improves after a frost because the plants respond by making sugars as cryoprotectants. To keep kale alive all winter, protect plants with row covers supported by hoops. Piedmont Master Gardener Ralph Morini's article on row covers details how to make row covers using inexpensive and easy-to-find materials.

Insect netting supported by hoops made from PVC pipe. Photo: Chris Stroupe. CC BY-NC-SA 4.0

Covers will keep kale alive, but cold temperatures and short days slow its growth over the winter months. For a solid winter harvest, start kale several weeks before the first frost.

Row covers can also keep insects away in summer. There are materials made specifically for this purpose that are lightweight and water-permeable with a fine weave that excludes insects. I can personally attest that row covers have kept my kale going all summer, long after unprotected plants would be

shredded by caterpillars. One lesson I learned the hard way: put up covers early, before any sign of insect damage!

Harvesting technique is also key to extending a kale crop. Use the "cut-and-come-again" method: trim from the outside of the plant, leaving the inner core where new leaves appear. The plants will keep growing and can eventually extend several feet high (see picture). Side stalks may branch from the main stem.

When it warms up in late winter, over-wintered kale will bolt, i.e. flower. This tends to make the leaves bitter. At this point, pull up the plants and start a new crop. Or, simply cut off the flower stalks. In my experience, the plants settle down and grow normally. But if temperatures drop below freezing again, the plants will bolt anew.

Final thoughts

If you're hankering for a kale salad and all you have around are old, tough leaves, give them a massage. Cut out the central stalk plus any large veins, then slice thinly. Add a little lemon juice and salt; the acidity will help break down cellulose fibers, and the salt will provide grit to intensify the massage. Then crush the leaves in your hands for a minute or two, until the leaves are dark and soft. Add some croutons and cheese, toss with your favorite dressing, and tuck in.

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Featured photo: Conall. CC BY 2.0 (cropped)

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September in the Ornamental Garden

By Cathy Caldwell | September 2024 - Vol. 10, 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.

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

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.

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

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

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.

Controlling Autumn Olive Video, Blue Ridge Prism

Autumn olive can be controlled in autumn, or at any time of year (except during spring growth), by cut-stumping or hack & squirting. For detailed guidance, including a very helpful video, take a look at Autumn Olive/Sept. 2023/The Garden Shed.

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.*

FEATURED 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.**

Upcoming Events

By Cathy Caldwell | September 2024 - Vol. 10, No. 9

Garden Basics: Square-Foot Gardening

Saturday, September 21 @ 2:00 pm – 4:00 pm
Trinity Episcopal Church 1118 Preston Avenue, Charlottesville

Learn how to maximize your growing space in the vegetable garden by using the square-foot gardening method. Square-foot gardening makes it easy to organize your garden layout and stop guessing about spacing. You will also identify weeds more easily.

Free

⇒Find out more and Register Here

Coming up in October . . .

Garden Basics: Fall Tasks in the Perennial Garden

Saturday, October 19 @ 2:00 pm – 4:00 pm

Sentara Martha Jefferson Hospital Demonstration Garden, 595 Martha Jefferson Drive, Charlottesville, VA

Take a trip to the demonstration garden at Sentara Martha Jefferson Hospital to learn how to prepare your garden for winter. We will cover: how and when to cut back plants, fall mulching and soil amendments, dividing and planting bulbs, and fall transplanting.

Free

⇒Find out more and Register Here

Invasives Watch

By Cathy Caldwell | September 2024 - Vol. 10, No. 9

There are several invasive plants that should be on your radar this month:

⇒ **Porcelain-Berry** (*Ampelopsis brevipedunculata*)and **Autumn Olive** (*Elaeagnus umbellata*)**.** Read about these two in this month's Tasks & Tips article, September in the Ornamental Garden. You may also want to view this helpful PMG video about **identifying autumn olive:**

https://pmgarchives.com/wp-content/uploads/2024/08/autumn-olive.mp4

And this video that will help you identify porcelain berry.

https://pmgarchives.com/wp-content/uploads/2024/08/Porcelain-Berry.mp4

For an **expert guide on how to control autumn olive,** don't miss this video:

⇒ **Japanese stiltgrass** (*Microstegium vimineum)***.** Here's the Weed Alert about **stiltgrass** that I recently

received:

Weed Alert/Stiltgrass

Are you signed up for the Weed Alerts generated by Blue Ridge PRISM (Partnership for Regional Invasive Species Management)? To receive Weed Alerts and newsletters from Blue Ridge PRISM, sign up here.