

August 2024 Newsletter

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SOUTHEASTERN PENNSYLVANIA CHAPTER

Oh Deer!



It's a rare gardener in our area who hasn't had to contend with deer munching on their native plants. Deer exclusion fencing is wonderful when it works, but deer have been known to push under or through fencing unless it's well-anchored. Fencing an area can also be prohibitively expensive.

White-tailed deer have evolved to eat many of the same native plants we're trying to reestablish on our properties. The problem is the number of deer compared to the amount of food available. When deer can't find enough food in fields and wooded areas, they venture into our yards. Hungry deer can strip the leaves from native shrubs or munch young ones to the ground in one night. In addition, they often uproot recently planted plants in the process of testing whether they're edible.

Like many gardening problems, this one has multiple approaches that can be used in different combinations, depending on the circumstances. The strategies offered here are all plant-based -- what to plant, where to plant it, and how to protect it.

Plant Shelters and Barriers

Protection for individual plants may seem straightforward, but it's not. Plastic plant shelters have their drawbacks -- they're not very attractive, they can be knocked over by large animals, and they create an artificially warm and light-compromised environment.

One alternative is shelters made of wire fencing. The wire doesn't need to be strong; chicken wire will do as long as it's securely fastened to a stake. The wire doesn't need to be 5 feet tall if the branches of the tree or shrub don't reach to the ground. The shelter can start at the height of the lowest

branches. You can also use shorter wire shelters and accept some degree of deer predation on the lower, exposed branches. This strategy can allow a tree or shrub to outgrow the deer, and the shelter can be removed once the plant is tall enough to escape damaging predation.

An alternative to caging vulnerable plants is to create barriers around them. Branches can be piled high and wide enough to force the deer to bypass tasty plants. This strategy can work in out-of-the way locations, or as a temporary measure until the plants outgrow the deer's reach.

Strategic Planting

Although it might seem that the deer eat every native plant in sight, some plants have developed defenses that make them unpalatable to deer. You might think thorns would qualify, but deer are happy to consume roses and wild blackberry plants. Unfortunately, their taste for thorns doesn't appear to extend to the nonnative wineberry that invades fields and the edges of woods and streams.

Strategic planting involves protecting vulnerable plants with natives that are unpalatable to deer, creating a natural barrier that will deter predation. This method isn't foolproof, but it can allow gardeners to grow vulnerable plants without caging them.

It's important to choose protective plants that grow at the same time, rate, and size as your vulnerable plants. If your vulnerable plants are spring ephemerals, choose other early emergers as guardian plants. Golden ragwort (*Packera aurea*) can remain green all winter in parts of our area and makes early, strong growth. A large patch could shelter vulnerable plants. Keep in mind that *Packera*'s leaves are less than 1 foot tall, so they won't protect taller plants.

Location can also protect plants from deer. Traffic along a busy road might deter deer from chewing on the same tasty natives that are munched in your back yard. Structures can also protect plants, although in rural areas, deer are known to come right up to the front porch to munch on tasty specimens.

Some effective guardian plants include:

Anise hyssop (Agastache foeniculum)

Milkweeds (Asclepias spp)

Sedges (Carex spp)

Sweetfern (Comptonia peregrina)

Blue mist flower (Conoclinium coelestina)

Threadleaf coreopsis (Coreopsis verticillata)

Grass-leaved goldenrod (Euthamia graminifolia)

Common rush (Juncus effusus)

Beebalm (Monarda spp)

Mountain mints (Pycnanthemum spp)

Golden ragwort (Packera aurea)

Virginia creeper (Parthenocissus quinquefolia)

Fragrant sumac (Rhus aromatica)

Scarlet sage (Salvia coccinea)

Vervain (*Verbena* spp)

Wingstem (Verbesina alternifolia)

Ferns (ostrich, Christmas, sensitive, wood)

Shorter clumping grasses (little bluestem, prairie dropseed, purple lovegrass)

Tall grasses (big bluestem, switchgrass, Virginia ryegrass, Indian grass, bottlebrush grass)

Defensive Planting

Another strategy to cut down on plant losses is to plant what they don't eat. The list above is a good place to start. In addition, here are some plants that are not preferred by deer:

Pussytoes (Antennaria plantaginifolia)

Wild ginger (Asarum canadense)

Lance-leaf loostrife (*Lysimachia lanceolata* var. *purpurea*)

Beardtongue (*Penstemon* spp)

Creeping phlox (*P. stolonifera*)

Bowman's root (*Porteranthus trifoliatus*)

Three-leaf cinquefoil (*Potentilla tridentata*)

Blue sage (Salvia azurea)

Lyre-leaf sage (Salvia lyrata)

Small skullcap (Scutellaria leonardii)

Aromatic aster (Symphiotrichum oblongifolia)

Some plants can withstand munching early in the season and just outgrow it -- for example, New York ironweed (*Vernonia novaboracensis*), hoary skillcap (*Scutellaria incana*), and blanket flower (*Gaillardia aristata* and *G. pulchella*).

Many lists of non-preferred plants can be found on line. It's important to qualify any list by noting that different locations experience different degrees of deer pressure. Plants that are left alone in one yard might be eaten in another location. Deer are unpredictable; if they are really hungry, they might eat plants they would ordinarily ignore. In addition, they will often try something new, damaging or destroying it in the process, even if they don't end up eating it.

In addition, deer eat differently at various times of the year. Plants that escape predation all spring might be attacked in early summer when does seek extra nutrition to raise their fawns. Many trees and shrubs are more vulnerable in winter, when food is scarce, and in early spring, when new shoots are tender and tasty. Tomato cages from the vegetable garden can be repurposed to protect these plants through the winter and early spring.

Chemical Deterrents

Deer spray can be an effective strategy, but it has several drawbacks, including cost and the need to continually reapply. It's also not as reliable as fencing; if deer are hungry enough, they might sample a sprayed plant anyway. Ground-applied deterrents (powdered bloodmeal is an example) can also be effective, with the same caveats.

With any substance that's applied on leaves or on the ground, we have to consider the consequences to other organisms. We plant native plants specifically because they nourish native insects, birds, and other organisms. Will native caterpillars eat leaves covered with deer spray? Will bloodmeal affect insects and microorganisms on the ground?

A workable compromise might be to spray new plantings that aren't otherwise protected, to deter deer from uprooting them just to try them out. Once these plants are established, they shouldn't need spraying if they have other protection (fencing, guard plants, or natural unpalatability).

Tree of the Month -- A Year of Oaks

Oaks are our most essential native tree, according to University of Delaware Professor of Entomology and Wildlife Ecology Doug Tallamy. The genus *Quercus* provides food for more caterpillar species than any other genus of plants in North America. Because so many native species rely on oaks for their survival, oaks have been dubbed one of the "keystone species" that play a pivotal role in the food chain.

Logging and land clearing for agriculture, homes, and commercial development have contributed to the loss of oaks in eastern forests. Diseases such as sudden oak death syndrome, bacterial leaf scorch, and oak wilt are also culprits in the decline of oaks.

Oaks native to Pennsylvania can be divided into two main groups: the red oaks (ten species), which have bristles at the end of their leaf tips or lobes and acorns that take two years to mature, and the white oaks (six species), which lack bristles on their leaf tips and have acorns that mature in one growing season. Some common red oak species include northern red, black, scarlet, and pin oaks. Common white oaks include white, chestnut, and swamp white oaks.

Different species of oak thrive in habitats ranging from dry soil to swamps. Many can grow to be 80-foot giants, but some oaks can also be pruned to stay small and adapt to smaller yards.

Resources

The Nature of Oaks, D. Tallamy
The Little Things That Run the World, E.O. Wilson

Dwarf Chinquapin Oak

This small tree or multi-stem shrub is a member of the white oak family. Its leaves resemble those of a chestnut tree, giving rise to its nickname, dwarf chestnut oak. *Quercus prinoides* is among the smallest oaks, growing only 10 to 15 feet tall with an irregular crown.

Unlike most oaks, which can take as long as 20 years to bear acorns, this tree starts producing acorns after just 3 or 4 years.

Dwarf chinquapin oak should be grown in full sun in an open setting. It does not tolerate competition

from taller canopy trees. Well-drained clay, loamy, or sandy soils are preferred, but it will tolerate poor, rocky soil. Once it is established, it tolerates

drought. It is difficult to transplant due to its long tap root.

The leaves are leathery with a wavy margin and may turn orange, copper, or golden brown in fall.

This oak is a host plant to 477 species of *Lepidoptera* lar-



Photo: Chris Evans, River to River CWMA, Bugwood.org

vae, including some of our showiest moths: imperial, giant leopard, clymene, and spun glass slug. You can see photos of some of these species here.



The acorns are eaten by wood ducks, wild turkeys, bobwhite quails, crows, woodpeckers, common grackles, blue jay, nuthatches, tufted titmice, eastern towhee, and other birds. Foxes, deer, opossums, raccoons, squirrels, chipmunks, and whitefooted mice also eat the nuts.

Quick Facts -- Dwarf Chinquapin Oak

Size 10-15 ft tall & wide

Sun Full sun

Soil Well-drained clay, loamy, or sandy soils preferred; will tolerate poor, rocky soil

Water Tolerates drought once established.

Habitat Value Host species for Lepidoptera; cover and nesting habitat for songbirds; acorns eaten by

birds and mammals.

Creature Café - Weeds That Feed Caterpillars

We know that caterpillars are critical elements in the terrestrial food web. North American songbirds need these nutrient-dense nuggets to feed their nestlings. In addition, many caterpillars are important macro decomposers, shredding fallen leaves, tunneling into dead wood, and consuming fallen fruits, accelerating nature's nutrient recycling processes.

Caterpillars facilitate the last leg of the transformation of the sun's energy into protein, which is a critical nutrient for many other animals, especially when they are young and growing rapidly. A few tattered leaves on our plants are a small price to pay to ensure the proper development and survival of a clutch of baby birds. The lucky caterpillars that do escape predation and become adults will pollinate the same native plants that sustained them as larvae (and many others), thus ensuring a new generation of plants.

However, not all native plants are equal when it comes to caterpillars. Many native plants that support pollinators with nectar and pollen don't offer much value in terms of the number of caterpillars they support. When is the last time you spotted holes in the leaves of your coneflower, beebalm, or mountain mint? These plants all produce pollen and nectar to feed adult pollinators, but their leaves aren't food for most caterpillars.

This brings us to keystone plants. Research spear-headed by Professor Doug Tallamy shows that just 14% of native plant species are larval hosts for 90% of native caterpillar species. The National Wildlife Federation's Native Plant Finder provides lists of native plant by zip code. The lists are ranked by the number of butterfly and moth species that use each plant as a host for their caterpillars.

You will find many familiar native plants on this list, but also a surprising number of plants you can't find at native plant nurseries. In other words, weeds. The *Eupatorium* family's best-known representative, Joe Pye weed, is a favorite native plant and readily available in plant or seed form. Other members of this family include bonesets and thoroughworts. These may already be growing in out-of-the way places in your yard. They are common volunteers in fields and along the edges of woods and

streams. According to the Native Plant Finder, the *Eupatorium* family supports 35 species of butterflies and moths in our area.

Another important host plant that's not for sale is willow herb, *Epilobium ciliatum* and *E. strictum*. Willow herb has long, slender leaves and tiny pink or white flowers. Mature stems are sometimes red.



Photo: Prairie Moon Nursery

(left) spreads readily from seed; in fact, you'll find it referred to as a common weed in containergrown plants.

Willow herb

Don't confuse the natives with two nonnative invasive willo herbs, E. parvi-

florum and E. hirsutum.

A common summer bloomer is fleabane (*Erigeron* spp.). In addition to Robin's plantain (*E. pulchella*), which can be found at native plant nurseries, daisy fleabane (an annual) and Philadelphia fleabane are native to our region. They thrive on disturbed ground and reseed readily. This family supports the caterpillars of 20 butterfly and moth species.

Native geraniums are host plants for 27 species of butterflies and moths. Carolina geranium (*G. carolinianum*, below) is an annual that's often vilified as a ubiquitous lawn and garden weed. It has deeply lobed leaves and small white to pale pink flowers. The leaves and stems often turn dark red in late summer. It can be an effective groundcover in poor, dry soils where little else will grow.

A patch of daisy fleabane, jewelweed, willow herb, boneset, and Carolina geranium will host many caterpillars, and support more wildlife, alongside your other pollinator-friendly plantings.

Resources

<u>Caterpillars of Eastern North America: A Guide to Identification and Natural History</u>, David Wagner, 2005.

Rewilding the Hellstrip

If you live in an area with sidewalks, the grassy strip between the sidewalk and the street present opportunities for rewilding, along with some unique challenges.

First, although the hellstrip and the sidewalk are usually part of the owner's property, others have some rights to these areas too, including the utility companies' ability to install above-ground and underground lines, and public use of use the sidewalk. Finally, traffic on the road may need to see over the sidewalk and grass strip, particularly at intersections.

Taking these competing interests into account, what can be done to make these grass strips into more useful habitat? These areas are often nicknamed "hellstrips" because of the compromised habitat: they might have poor soil left over from construction, they can be hotter due to reflected heat from the road and sidewalk, they may flood due to poor drainage, they bear the brunt of winter road salting and plowing, and pedestrian use can include dog waste and litter. Trash and recycling cans are set out on hellstrips every week. Delivery trucks run over hellstrips by mistake.

Given this list of insults to the hellstrip, it's no wonder homeowners mow it and forget it, creating a habitat wasteland right in front of their house. Can we improve on this and add curb appeal to our homes by rethinking the hellstrip?

Location, Location, Location

This advice applies to hellstrip design too! The first step in rewilding a hellstrip is to assess the location. We're used to evaluating the soil, sun, and water characteristics of a site. In addition to these, each hellstrip will have its own public characteristics that will influence the plants that can be grown there.

First, are homeowners allowed to plant in the hellstrip, and what are you allowed to plant? Visit your municipal office to determine if there are any restrictions, such as the height of plants or depth of excavation, and whether you need to obtain permission to dig, even just to remove the existing grass.

Next, dig into your hellstrip to see what kind of soil is there, how deep it is, and whether there are drainage issues. There are native plants that grow in sand, clay, rock, or boggy soil, so you shouldn't need to replace or improve the soil, but compaction could be an issue. If necessary, use a digging fork to loosen the soil.

Finally, observe how the hellstrip is used. Is there a lot of foot traffic? Is litter commonly a problem? Does the municipality salt the road or the sidewalk? Do you need to provide a clear area for trash cans, deliveries, mailbox, etc.? If cars routinely park on the street and people expect to cross the hellstrip from their car to the sidewalk, you'll need to allow spaces for passage.

Design the Space

Depending on the size of your project, your design might include different types of plantings to accommodate soil, sun, water, or the different ways the hellstrip is used.

If your design includes trees, make sure the soil is deep enough to accommodate the root system of the species you choose, and also check for utility lines. If utilities are installed under your hellstrip, trees might be prohibited. Even if they're not, take into account that your plantings might need to be removed if underground lines require repair. If that's the case, you'll want to choose plants that have a reasonable chance of survival if they need to be moved.

If people use the hellstrip to cross from the sidewalk to a parked car, your design should include areas for them to cross without stepping on plants. Strips of mowed grass or wood chips between planted sections could work. If you use hardscape (bricks, pavers, etc.) to create paths, keep in mind that these areas will need to be kept in good repair to prevent someone from tripping on a loose or uneven edge.

In the same vein, choose plants that will not cause problems for sidewalk users. This includes plants that grow or flop onto the sidewalk, and plants with thorns, sharp branches, or leaves that cause skin irritation. You'll also want to avoid plants with parts that are toxic if ingested by humans or pets, even if they're not supposed to be eaten.

Choose Plants

Just like any site, the hellstrip has certain limitations that need to be considered in choosing plants. That's the fun of native plants -- there's a native plant to fit pretty much any situation. Let's start with plants that survive in challenging environmental conditions like poor soil, heat, or poor drainage. Native sedges, grasses, and ferns are adapted to a wide range of conditions and can be an important part of a hellstrip planting. You might be used to using these plants as fillers rather than as features of a planting, so their diverse colors, forms, and abilities could be a pleasant surprise.

Most sedges and ferns are shorter than 3 feet and have a relatively compact form. Mt. Cuba Center conducted

a <u>sedge comparison trial</u> several years ago that provides valuable information on the qualities and adaptability of sedges. And of course, sedges provide nutrition and cover for native insects and animals.

Shorter, clump-forming grasses that could be suitable for a hellstrip planting include little bluestem (*Schizachyrium scoparium*), purple lovegrass (*Eragrostis spectabilis*), and prairie dropseed (*Sporobolus heterolepsis*). Ferns might look delicate, but marginal wood fern (*Dyropteris marginalis*), lady fern (*Athyrium felixfemina*), and Christmas fern (*Polystichum acrostichoides*) are all sturdy, clump-forming species that can stand up to hot dry conditions in part shade.

Sedges, grasses, and ferns have interesting leaf forms and textures that can create pleasing contrasts in a hellstrip planting when planted in groups.

Low-growing shrubs like fragrant sumac (*Rhus aromatica*) and sweetfern (*Comptonia peregrina*, a fern look-alike but a member of the bay laurel family) are vigorous spreaders in the right conditions and can quickly fill an area of several square feet with attractive foliage.

Here are four very low-growing natives that can provide additional contrast and color in a sunny hellstrip planting, although none of them will tolerate more than occasional foot traffic.

Plantain-leaved pussytoes (Antennaria plantaginifolia) grows in silvery, soft-leaved mounds just a few inches high, except in late spring, when stiff 8" flower stalks wave tiny white flower clusters that transform into fluffy silver seed heads before disappearing by midsummer. Pussytoes is a host plant for the larvae of the American painted lady butterfly, and the fluffy seed heads are said to provide nesting material for hummingbirds.



Moss phlox (*P. subulata*) is a popular groundcover that can remain green over winter in milder areas. The clumping foliage is bright green and needle-like, and the spring flowers are blue to lavender, although pink and white cultivars are available. Creeping phlox (*P. stolonifera*) forms a mat rather than mounded

clumps and produces delicate purple flowers in spring.

Prostrate heath aster (*Symphyotrichum ericoides* var. *prostratum*) is a vigorous spreader (up to 2 square

feet) with stiff, evergreen-like foliage that's covered with white flowers in early fall.



For a hellstrip with some shade and moisture, golden groundsel (*Packera aurea*), wild ginger (Asarum *canadense*), alumroot (*Heuchera* spp.) and woodland stonecrop (*Sedum ternatum*) all have sturdy, attractive foliage. Golden groundsel adds waves of yellow in spring.

Color is important in a public space like a hellstrip. Add splashes of color with reliable performers like aromatic aster (Symphyotrichum oblongifolia), golden alexander (Zizia aurea), thread-leaf coreopsis (C. verticillata), blazing star (Liatris microcephela, aspera, and punctata), purple poppy mallow (Callirhoe involucrata), Jacobs' ladder (Polymonium reptans), and coneflowers (Echinacea spp). These plants are not especially tall and don't flop -- important characteristics in a hellstrip planting.

Because this planting will be subject to constant public view, pay attention to grooming. Kkeep enthusiastic spreaders from creeping onto the sidewalk, and remove any weeds immediately. Plant single species in larger groups to emphasize different leaf textures and colors, and to indicate that the planting is intentional.

Passers-by might be surprised to see that spent foliage isn't trimmed back in fall, so choose plants with a neat winter habit, or cut tall stems halfway back. Use the planting as a teaching tool -- leave fallen leaves in place, and encourage the plants to cover the ground in place of mulch.

Resources

Our Habitat Garden: Hellstrip

Hellstrip: Native Garden Design Guidelines

Hellstrip Plantings: Creating Habitat in the Space Between the Sidewalk and the Curb

Invasive Species Alert -- Japanese Hops

Japanese hops (*Humulus japonicas*) is an annual that can quickly overwhelm a site due to its rapid growth in warm weather. The plant is native to eastern Asia and was introduced to the U.S. in the 1880s. It is listed as an invasive plant in some states, including Pennsylvania.

Japanese hops grows best in full sun and moist, rich soil, including stream banks and floodplains. It is a ruderal plant, thriving in disturbed areas such as roadsides, abandoned fields, and woods edges.

Ecological Threat

This plant can spread quickly to cover large areas of open ground. It can climb over understory shrubs and small trees, smothering them with its dense vegetation that can be heavy enough to break off branches. Its rapid, dense growth displaces native plants, preventing natives from sprouting and smothering young shrubs and trees.

Description

Japanese hops is a shallow-rooted, vining plant with large deeply lobed, toothed leaves. Its stems are covered with short, sharp prickles that enable it to attach to surfaces and climb. The small green flowers are inconspicuous and appear in mid to late summer Female plants produce cone-shaped seed heads. The seeds are spread by wind, water, animals, foot traffic, and vehicles. Seeds may remain viable in the soil for up to three years.

Japanese hops vines grow rapidly in warm weather and can reach up to 35 feet. They grow in sandy, loamy, and clay soils with full sun to partial shade.

Native Look-Alikes

The native common hops (*H. lupulus*), used in beer making, has leaves with three or fewer lobes. as opposed to the five or more lobes of Japanese hops. Bur cucumber (*Sicyos angulatus*) and wild cucumber (*Echinocystis lobata*) climb via tendrils rather than

Resources

DCNR Invasive Plants Fact Sheet: Japanese Hops

Weed of the Week: Japanese Hop

prickers. The leaves of Virginia creeper (*Parthenocissus quinquefolia*, below) have five separate leaflets on a stem, whereas each Japanese



hops leaf has multiple lobes.

Control

Mowing, hand-pulling, and weed whacking can be effective when started in early spring and continued until the plants die back in the fall. Plants must be mowed or removed before seed is set in order to achieve long-term control.

The most effective way to remove this invasive plant is to hand-pull the vines. Since it's an annual, it has relatively shallow roots, so hand-pulling is not difficult. The location of plants in wet areas and among trees can make access to the plants difficult. Manual removal prevents regrowth, although there will be some soil disturbance where the roots are pulled out.

Reports indicate that after three consecutive years of control that prevents seed production, the seed bank is normally exhausted. In areas with the potential for recolonization, such as stream banks, continued monitoring will be needed until the upstream seed source is eliminated.

WO SEPA FALL EVENTS

September 20 -- Meet-up at the Grand Opening of Collins Nursery at Ambler Arboretum. Temple University Ambler Campus , 580 Meetinghouse Road Ambler, PA , 4:00 - 6:00 p.m.

October 9 -- Native Gardening in an HOA, zoom presentation, 7:00 p.m.

November 7 -- Officer and Board Elections; Building a Native Pond, zoom presentation, 7:00 p.m.

Recordings of past meetings are available on our YouTube channel.

Summer Seedlings

A great way to fill gaps that appear in your plantings during the season is to have transplants ready to go into those spots. Some of your wintersown seedlings might be ready for transplanting, but many won't be ready for planting until fall. However, if you have seedlings that sprout naturally around your property -- or if you established a gravel seed bed, as described in the September 2023 newsletter -- you can transplant these seedlings into plug trays and move them to their permanent homes in as little as a month.

This is because seedlings that self-sow are already growing strong by the time you notice them. They have gotten beyond the tender baby-seedling stage and have developed good roots. Those roots are what's needed for strong transplants.

If you've ever ordered a flat of plugs from a nursery (or through our chapter's plant sales), don't throw out that empty plug tray! These trays are the key to raising sturdy transplants quickly. Use trays that are at least 3-1/2" deep, so the transplants can form a good root system.

Since you'll be uprooting plants in hot weather, have your plug tray ready ahead of time. Cover the bottom hole of each cell with a stone, and fill the cells halfway with your chosen potting mix. A 50-50 mix of sieved compost and gravel screenings will ensure good drainage.

Dig the seedlings when they're in the shade and preferably right after a rain. Use a sharp knife or trowel to remove the seedlings. Don't worry if they come out mostly bare root; they'll recover. Add soil to each cell as you plant it, and water right away. Unless the plants are rosettes, seedlings can be transplanted in clumps.



Above is a tray of newly transplanted seedlings of blue mist flower, lyre-leaf sage, blue wood aster, and penstemon. They'll wilt the first day -- water well and keep them shaded for a few days.

In four weeks, the plugs will look like this and are ready to transplant. Keep them watered for the first week. Summer and fall bloomers might flower the same year. You can do this all summer, whenever you find self-sown seedlings.



Events and Educational Opportunities

- August 21, 28 Enhancing Life in the Soils. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- August 22 Inviting Wildlife into the Garden. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- August 22 Caterpillars 101. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 9:00 a.m.
- August 22 Combatting the Biodiversity Crisis with Native Plants. Wild Ones webinar, 7:00 p.m.
- **August 24** Knowing Native Plants: Confusing Yellow Composites. Bowman's Hill Wildflower Preserve, webinar or onsite, 10:00 a.m.
- August 24 Caterpillars 101. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 9:00 a.m.
- August 24 Late Season Garden Care. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- **August 29** PokéPolinators and What Makes the World Go Round with PikaScience. Bowman's Hill Wildflower Preserve, webinar or on-site, 7:00 p.m.
- Sept. 3, 10, 17 Enhancing Life in the Soils. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Sept. 4 Oct. 9 Native Plants of Fall 2024. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Sept. 7 Demystifying Toxic Plants Tour. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 11:00 a.m.
- Sept. 11 Gardening with Birds in Mind. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- **Sept. 22** Woman's National Farm & Garden Assn. Garden Tour, Twining Valley Park, 1400 Twining Rd, Dresher PA, 11:00 a.m. 4:00 p.m. Tickets \$15 via Eventbrite.com or \$20 at Twining Valley Park on Sept. 22.