Wild Ones
NATIVE PLANTS, NATURAL LANDSCAPES
SOUTHEASTERN PENNSYLVANIA CHAPTER

December 2022 Newsletter

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December Meeting Highlights

Chapter Business

Chapter membership stands at 142. Our on-line programs are attended by anywhere from 20 to 60 people, and many of the recordings have been viewed over 100 times.

Collecting and Saving Native Seeds

Presented by Susan Doblmaier, Chair, Hardy Plant Society/Mid-Atlantic Group Seed Exchange

Why Save Native Seeds?

Plants will adapt to their soil and moisture conditions, and their seedlings will reflect these adaptations. Over time, saving your own seeds can result in plants that are uniquely adapted to your garden's conditions. Planting seeds that were collected from your ecoregion should ensure the best adaptation to local climate and soil.

If you're not familiar with ecoregions, learn more and look up your ecoregion here.

Cultivars do not always come true from seed, so be aware of this if you decide to sow their seeds.

F1 hybrids are the result of crossing two different varieties of a plant to emphasize certain traits. This is most often done with vegetables to produce specific characteristics of the fruit or leaves, or to affect the plant's size or disease resistance. Seed from an F1 hybrid will come true only 1 in 4 times. Heirloom varieties are usually more stable.

Saving Seeds from Flowering Plants

Flowers must be allowed to mature in order to produce seed, so don't deadhead, at least toward the end of the summer. Wait until the outside of the seed pod appears dry, and harvest seeds on a dry day. Collect your seeds before a hard frost occurs, because the seeds can get mushy if they're brought inside after a frost.

Cut off the seed heads and remove the chaff (stems, leaves, dried flower petals, seed pods). Some seeds (e.g., sumac) must be separated from their coatings by soaking them. Soaked seeds should be left to dry on paper towels once the outer coating has been removed.

A variety of tools can be useful when cleaning seeds, including kitchen strainers of various sizes, sieves, a meat pounder to break tough seed coats, and paper plates to use as a work surface.

Some plants don't produce viable seed, either as a byproduct of hybridization (e.g., some ninebarks) or because their flowers can't support pollination because they have been bred to have a different flower form from the straight species (e.g., double flowers).

After cleaning, seeds can be stored in paper or glassine envelopes. Mark the species and the date on each envelope for reference. Plastic bags are not ideal for seed storage because they can retain moisture inside, which can reduce seed viability.

Store your seed envelopes in a closed container. Commercial dessicants can be used in the container but often aren't necessary, depending on where the container is stored. Seeds should be stored in a cool place. A refrigerator works if you have the room.

Many native tree and shrub seeds germinate best when planted immediately after collection, so there is no need to store these seeds.

December meeting highlights, continued from page 1

To test seeds for viability, place 10 seeds on a paper towel, fold it over once, and spray it lightly with water. Place the paper towel in a Ziploc bag but don't seal the bag completely; seeds need air to germinate. Check the internet for the variety you are testing to determine whether to germinate the seeds in a warm or cool area.

Check the seeds periodically for signs of germination. Check the internet to see what the seedlings should look like, to make sure you don't have any rogue seeds in your germination test.

This test is much simpler than the germination testing done for commercially available seed, but it could give you an idea whether your saved seeds are viable. Some native seeds require temperature changes over time in order to break dormancy and germinate. The viability of many seeds of native flowering plants is still unknown; not enough research has been done.

Seed libraries maintained by nature preserves and public gardens can be a good source of native seeds that are not available commercially. Seed libraries and seed banks have traditionally focused on saving agricultural seeds, but some are expanding their focus to include ornamental plants, trees, and shrubs, including natives.

Resources

Wildflowers: A Guide to Growing and Propagating Native Flowers of North America, W. Cullina

Growing and Propagating Wild Flowers , H. Phillips

Wild Seed Project

Seed Germination Theory & Practice

Royal Horticultural Society (UK)

Seed Exchanges

North American Rock Garden Society

Seed Savers Exchange

Hardy Plant Society Mid-Atlantic Group

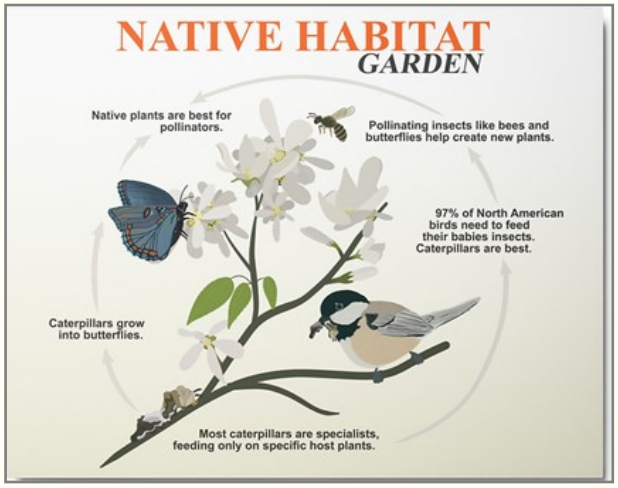
Local Sources of Native Seed

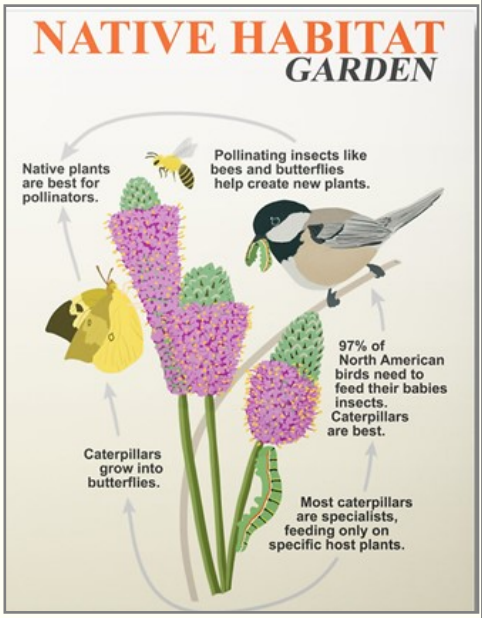
Jenkins Arboretum Toadshade Wildflower Farm

Brandywine Conservancy Ernst Seed

Habitat Garden Signs

Let everyone know about your dedication to improving native habitat on your property with these colorful signs, available from Nature Among Us. Other sources of habitat signage are the National Audubon Society, National Wildlife Federation,, Xerces Society. Pollinator Partnership, and Monarch Joint Venture.





WO-SEPA 2023 Meeting Schedule

Jan. 12: Starting Native Seeds

Feb. 8 Tree Index

Mar. 8 Rain Barrels

Apr. __ Insect-Plant-Flower Interactions

May 11 Native Edibles & Companion Planting

June 8 Backyard Nature Preserve Tour

Recordings of past meetings are on our Youtube channel.

Thought of the Month -- Winter Pruning

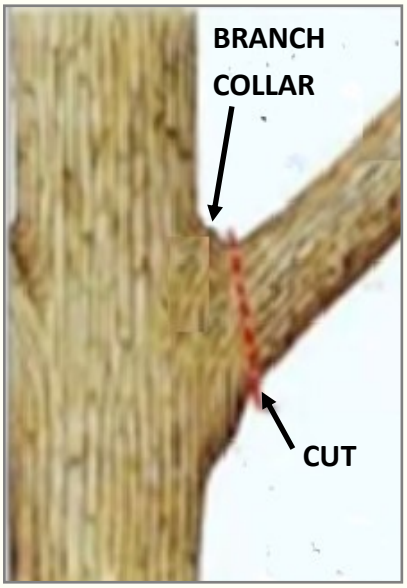
If you want to prune your native trees and shrubs, winter is the best time for this activity, for many reasons. Individual branches and the general form of the plants are easier to see without their leaves. It's also easier to spot dead or diseased branches that could fall with heavy snow buildup or wind. Removing limbs during dormancy is also less stressful for trees and shrubs. Plus, pruning at this time allows the cuts to seal over before the plant needs to use energy reserves to fuel its the spring growth. Insects and fungi tend to go dormant along with the plants, lessening the risk of infection or infestation at the site of the cutting.

Spring-flowering shrubs and trees should not be pruned until after they bloom. Pruning them in winter will remove the buds that have been set. A few examples are dogwood, redbud, serviceberry, crabapple, cherry, and fringe tree. Evergreens should not be pruned until early spring to prevent tip burn on the new growth.

The goal of pruning is to promote the health of your plant while keeping it looking natural. Aim to achieve good spacing between the branches and balance, to avoid uneven weight on one side. Topping and removing all of the lower limbs are to be avoided.

Here are some general pruning tips:

- Make sure your tools are sharp and clean for each plant you are pruning.
- First, remove all dead and diseased branches and suckers. Next, take off the weaker of any branches that are crossed or rubbing. You may also want to thin the canopy to allow more air circulation and light, especially with fruit-bearing trees, which are susceptible to fungus. If a tree has two leaders, removing one could help promote tree strength and avoid splitting in the coming years.
- Never remove more than one quarter of a plant in a season, to avoid sending the plant into shock.
- Always prune back to a bud or a branch, never in the middle of a branch. When removing a limb, cut back just to the outside of the branch collar, not flush to the trunk. This encourages proper sealing of the wood.



- Take extra care with large limbs that need to be removed. Consider calling an arborist to prune large trees.

The two main types of pruning cuts are thinning cuts and heading cuts. Both types of cuts can be used to encourage new growth in the desired direction.

A thinning cut removes an entire branch back to the trunk, to a main branch, or to the ground. This opens up the plant to allow better light penetration and air circulation, while maintaining the overall form.

A heading cut removes a branch's growing tip back to a lower bud or a side branch. This stimulates the lower buds to begin growing. Generally, two to four new branches arise from the buds or branches just below the heading cut, increasing branch density.

When thinning cuts are made, the remaining branches often respond by growing long and leggy. Making heading cuts on some branches after thinning can reduce this tendency. If upper branches show the potential to compete with the terminal leader for dominance, heading them back will encourage the development of a strong leader.

It's tempting to start pruning as soon as the leaves have fallen, but don't prune too early in the winter, because cuts can dry out when the temperature drops below freezing. Instead, use early winter to survey your trees and shrubs and plan your pruning for late winter or early spring.

Resources

Pruning in Winter

Winter Tree Pruning

When To Prune Trees and Shrubs

Winter Pruning for Trees

Ultimate Guide to Pruning Tools

Tree of the Month -- Sweetbay Magnolia

Magnolia virginiana is the northern form of sweetbay magnolia. It is a small, deciduous to partially evergreen tree, growing to about 20 feet tall. Leaves may remain on the tree in mild winters. It prefers full sun to part shade and rich, moist, well-drained acid soil. The growth habit of sweetbay magnolia varies from a single-stemmed tree to a multi-stemmed, round-headed shrub.

Bark is smooth and green on young trees and mottled and silvery-grey on mature trees. The inner bark also has a light scent of bay leaves. The fruit is a cone-like structure bearing seeds with a thin, red coating, attractive to songbirds, turkeys, quail, squirrels, and mice. Beavers love to eat the fleshy roots. Deer eat the leaves and twigs. People can use the leaves to make tea and to flavor soups and stews, like bay leaves. Sweetbay magnolia is a host plant for the Eastern Tiger Swallowtail, Sweetbay Silkmoth, and Spicebush Swallowtail and also provides pollen and nectar for pollinators.

Consider planting sweetbay magnolia near a porch or patio to take advantage of its beautiful, glossy, deep green leaves that are silvery on the undersides and smell of bay leaves when crushed, and the large and extremely fragrant lemon-scented creamy white flowers that bloom in late spring through early summer.

Sweetbay Magnolia Quick Facts

Height: to 20 ft

Form: single trunk or multi-stem; vase-shaped

Growth rate: medium to fast

Soil: rich, moist, acidic, well-drained

Sun: full sun to part shade

Leaves: large, dark green with silver underside; semi-evergreen

Flowers: large, white, lemon-scented

Fruit: red berries in cone-shaped clusters

Habitat value: host plant for Eastern Tiger Swallowtail, Sweetbay Silkmoth, and Spicebush Swallowtail; provides pollen and nectar for pollinators

Pledge To Rewild on a Municipal Scale

In January, we invited readers to start off 2022 with a pledge to rewild. This initiative by the Wild Seed Project aims to meet the challenge of biodiversity loss head-on by restoring a minimum of 70% of native plant biomass to support healthy populations of butterflies, bees, birds, and insects that are crucial to a functioning ecosystem.

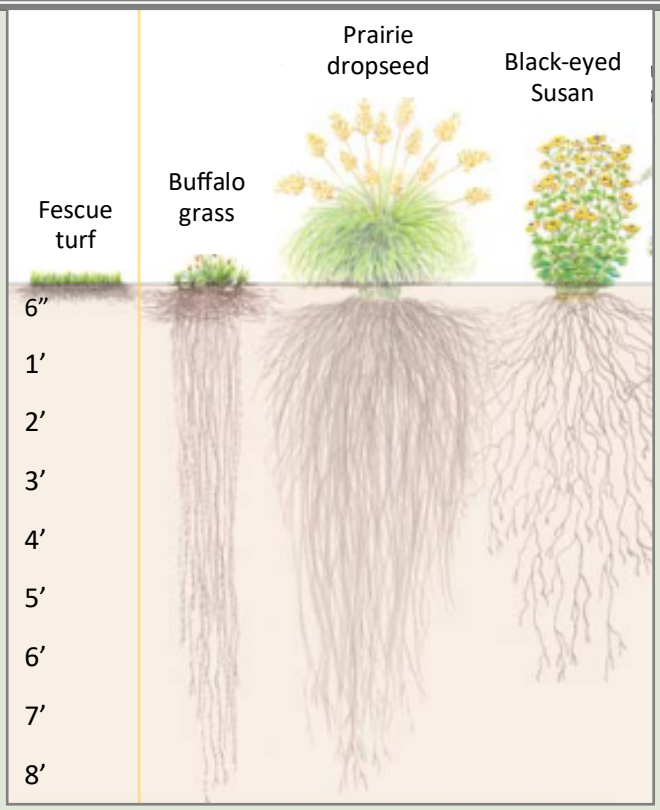
Last month, we focused on how individuals can work on a community-wide scale to improve native habitat. In water-stressed Colorado, a commitment between Denver Water, the state's oldest and largest water utility, and municipal water users prompted Arapaho County officials to replace this 3-acre irrigated lawn with native grasses.

This summer, landscape crews planted a mix of native prairie grass seed on the site, including blue grama, buffalo grass, sideoats grama, western wheatgrass, green needlegrass, and sand dropseed. The intention is to restore this field to the plants that grew here before the area was colonized by westward-migrating settlers.

Once established, the grasses should be able to survive solely on the moisture available naturally. The shift from Kentucky bluegrass to native prairie grass on this site is expected to save 1.5 million gallons of water a year.

Prairie plants are extremely drought-tolerant, due in part to their very extensive root systems. The roots of typical lawn grasses may be 6" deep, but the roots of prairie grasses and forbs can extend up to 12 feet.

Besides being drought-tolerant, prairie grasses can



rebuild soil over time. Their extensive root system absorbs and slows water flow, reducing runoff. Most important, native plants co-evolved with native organisms, providing food, shelter, and nesting resources.

Arapahoe County also replaced the landscaping around its administration building with a garden featuring native plants that will use less water.

The partners on this project acknowledged the benefits of native plants in providing shade, helping to manage stormwater, providing habitat for native pollinators and animals, and reducing air pollution. The county's goal is to transition to landscapes that are naturally adaptive to drought conditions.

Plants for Winter Interest Outside and Indoors Many of our native plants have leaves, berries, stems, and even buds that provide color and interest over winter and can be used in holiday decorations,. After the holidays, take your decorations outside and leave the branches and berries on the ground for the birds and other animals.

***Ilex opaca* (American holly)** Glossy green leaves and red berries that hold well on indoor or outdoor decorations.

***Ilex verticillata* (winterberry holly)** Strong stems with clusters of red berries stand up well in containers.

***Callicarpa americana* (beautyberry)** Graceful arching stems with cluster of violet berries.

***Celastrus scandens* (American bittersweet)** Woody vine with clusters of orange berries at the tips of branches. Berries tend to fall off easily. Don't confuse this with invasive Asian bittersweet, which has berries all along the branches.

***Cornus sericea* (red-twig dogwood)** Bright red stems provide vertical element in arrangements.

***Hamamelis virginiana* (witch hazel)** Tiny yellow thread-like flowers bloom along stiff stems in winter.

***Tilia americana* (linden; basswood)** Prominent buds at the tips of twigs are tinged with red.

***Cornus florida* (white dogwood)** Small clusters of scarlet berries at the tips of branches.

***Viburnum* spp.** Clusters of berries can be red, blue, pink, or black.

***Schizachyrium scoparium* (little bluestem)** Soft blue upright stems turn reddish in fall.

***Sorghastrum nutans* (Indiangrass)** Soft tan plumes on thin stems are a graceful filler.

***Rosa carolina, R. virginiana* (Carolina rose, Virginia rose)** Bright red rose hips are decorative and edible too.

***Symphoricarpus alba* (snowberry)** Clusters of white berries at the tips of branches last well into winter.

***Juniperus virginiana* (eastern red cedar)** Small fleshy blue berries (actually seed cones) are clustered toward the ends of branches. Evergreen foliage is stiff and gray-green.

***Phytolacca americana* (pokeberry)** Arching sprays of medium-size dark blue to black berries on bright red-purple stems. Berries are soft and the juice has been used as a dye.

***Crataegus phaenopyrum* (Washington hawthorn)** Small clusters of orange-red berries hang from tips of branches.

***Rhus typhina* (staghorn sumac)** Large upright cones of bright red berries make a dramatic statement.

***Polystichum acrostichoides* (Christmas fern**) Evergreen fronds are a great filler in vases and wreaths.

***Asclepias* spp. (milkweeds)** Teardrop-shaped pods are a dramatic accent with or without their white silk.

***Pinus strobus* (eastern white pine)** Long graceful branches with soft clusters of long evergreen needles.

***Juniperus horizontalis* (creeping juniper)** Short, dense sprays of gray-green evergreen needles are great as fillers in wreaths and other small arrangements.

***Hibiscus palustris* (swamp rose mallow)** Seed capsules open to form small five-pointed stars.

***Pinus resinosa* (red pine)** Medium-size egg-shaped cones are tinged with red.

***Quercus* spp. (oaks)** Acorns can be flat or elongated, green or brown; a few have fuzzy caps.

***Ilex glabra* (inkberry)** Small evergreen leaves and small black berries.

***Picea rubens* (red spruce)** Stiff evergreen needled branches provide good filler. Egg-shaped cones are reddish brown.

***Rhododendron maximum* (rosebay)** Long narrow leathery evergreen leaves and interesting seed pods.

***Magnolia virginiana* (sweetbay magnolia)** Red cone-like seed pods with bright red seeds mature in early fall.

***Alnus serrulata* (smooth alder)** Clusters of small black cones that resemble small pine cones.

***Abies balsamea* (balsam fir)** Soft, flat evergreen needles on stiff branches; fragrant.

***Myrica pennsylvanica* (northern bayberry)** Clusters of small aromatic silver-grey berries on female plants.

***Tsuga canadensis* (Canadian hemlock**) Soft, feathery evergreen needles form a flat horizontal spray on the twig. Tiny brown cones hang from twigs.

Diary of a Rewilder

This month we're featuring a garden that was created to solve a water problem. During heavy rains, stormwater runoff would flood out this gardener's back yard. Even the builder's efforts to regrade the area didn't solve the problem. The owner's solution was to work with the water instead of against it. She designed a swale that crossed the back yard and captured the stormwater, directing it to a low area that serves as a rain garden, absorbing excess water and preventing it from flooding the rest of the yard.

The owners started by smothering the grass along the swale line with cardboard. They then had a landscaper remove the sod and place large boulders along the swale to define it. The owners filled the swale area with river rocks and built a linear raised bed along both sides of the swale.

The swale planting includes cardinal flower (*Lobelia cardinalis*), smooth penstemon (*P. digitalis*), spider wort (*Tradescantia ohioensis*), dwarf crested iris (*I. cristata*), wild iris (*I. shrevei*), mountain mint (*Pycnanthemum* spp.), blue eyed grass (*Sisyrinchium*

angustifolia), sneezeweed (*Helenium autumnale*) blanket flower (*Gaillardia*), fox sedge (*Carex vulpinoidea*), palm sedge (*Carex muskingumensis*), and big bluestem (*Andropogon gerardii*). Although they looked small when they arrived, the plugs took off quickly. By the end of the first growing season, they had started to fill in, and some were blooming.

The top of the swale (shown below), where the collection of water runoff starts, is planted with red-twig dogwood (*Cornus sericea*), rose mallow (*Hibiscus moscheutos*), button bush (*Cephalanthus occidentalis*), brome sedge (*Carex bromoides*), and marginal wood fern (*Dryopteris marginalis*).

After a storm, the rain garden at the bottom of the swale (shown below) holds and absorbs runoff.

The swale and rain garden have done wonders for the water that used to flood out the yard during heavy rains. When the plants were first installed in the spring, the dirt and mulch would wash away from the swale during storms. The owners patiently repaired the area after each spring storm, and by late summer the root systems had taken hold and made a huge difference in the flooding. The photo below shows the mature rain garden.

Invasive Species Alert -- Japanese Barberry

Not only is Japanese barberry (*Berberis thunbergii*) intruding on our state parks and forests to crowd out native plants, it's also providing ideal habitat for black-legged ticks, transmitters of Lyme disease, and their hosts. Japanese barberry is a prime example of the adverse effects of invasive species on public health.

Research shows that barberry thickets increase the survival rates of the ticks. Key factors are the increased temperature and humidity generated by the thick, arching branches of the barberry shrub, which help ticks survive, and the habitat the shrub provides to mice, rabbits, and birds, all of which are hosts for the tick.

Specifically, the white-footed mouse is a reservoir host for Lyme disease. The mouse uses barberry as a habitat. The blacklegged tick can become infected after feeding off the mouse, which can lead to the spread of Lyme disease. One study indicates that management of invasive barberry populations reduces contact between black-legged ticks and white-footed mice, resulting in the reduction of ticks infected with Lyme disease.

Japanese barberry was added to the Pennsylvania Noxious Weed List in 2021, which means that after a two-year grace period, it may no longer be sold, distributed, cultivated, or propagated in Pennsylvania. This plant was introduced to the United States over 100 years ago as an ornamental plant. It spreads into nearby forests, parks, and fields by seed. These plants can be identified in the fall by the small red berries and single spines along the stems. Shrubs grow 3 to 6 feet tall and can form dense, prickly thickets. Japanese barberry is not eaten by deer, so as native plant populations are reduced by overgrazing, barberry takes over these areas.

Remove young plants by hand-pulling. Larger infestations can be eliminated by repeated mowing (3 to 6 times a year) to deplete the plant's energy reserves. Persistence is needed, as plants can resprout from roots left in the ground.

Resources

Japanese Barberry Fact Sheet, DCNR

Invasive Japanese Barberry, PennState Extension

Events in the Community and Beyond

Dec. 10 Community Science with iNaturalist App. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin DE. 10:00 a.m. - noon.

Educational Opportunities

Dec. 7 Ecological Gardening: The Basics. Morris Arboretum, 100 E. Northwestern Ave, Philadelphia 19118, 4:00-6:00 p.m.

Dec. 14 Urban Pollinator Corridors. Ecological Landscape Alliance, webinar, noon-1:00 p.m.

Jan. 11 Pollinators and Native Plant Cultivars. Mt. Cuba Center, webinar, 6:30 - 8:00 p.m.

Jan. 11, 18, 25 Woods in Your Backyard Series. PennState Extension, webinar, 7:00 -8:30 p.m.

Jan. 21 Putting Plants To Work. Mt Cuba Center, webinar, 11:00 a.m. - 12:30 p.m.

Jan. 26 Pollinators in the Woods. Xerces Society, webinar, 1:00 p.m.